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**BEFORE THE
SURFACE TRANSPORTATION BOARD**



AEP TEXAS NORTH COMPANY

Complainant,

v.

BNSF RAILWAY COMPANY

Defendant.

Docket No. 41191 (Sub-No. 1)

**OPENING FOURTH SUPPLEMENTAL EVIDENCE OF
COMPLAINANT AEP TEXAS NORTH COMPANY
IN RESPONSE TO THE BOARD'S DECISION ON RECONSIDERATION**

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AEP Texas North Company ("AEP Texas") hereby submits its Fourth Supplemental Opening Evidence in accordance with the Board's decision on reconsideration served on May 29, 2008 ("*Reconsideration Decision*") As demonstrated herein, the Board should utilize the Capital Asset Pricing Model ("CAPM") to determine the cost of equity used to calculate stand-alone costs ("SAC") for the stand-alone railroad ("SARR") posited in this case (the Texas & Northern Railroad ("TNR")) for all historic years relevant to this proceeding (1998-2006), and an average of capital costs for those years to project SAC over the balance of the 20-year period covered by the SAC analysis. The CAPM methodology should be used for all years because it provides a more accurate measure of the cost of equity actually experienced by the railroads in the

“relevant capital markets and is a better indicator of changes in financial markets ”

***Methodology to be Employed in Determining the R R Indus Cost of Capital*, STB Ex Parte No. 664 (STB served Jan. 17, 2008) (“*Final COC Decision*”).**

If the Board does not restate capital costs for all years using CAPM cost of equity values, then at a minimum the CAPM model should be used to determine capital costs for 2005 and 2006. and the average of those years should be used for the 2007-2020 period. Under either scenario, the application of the Board’s current standards and procedures to the record in this case demonstrates that the rates at issue in this proceeding exceed a lawful maximum level, and that AEP Texas is entitled to prescriptive relief and reparations.

I. Introduction

On August 11, 2003, AEP Texas filed its Complaint in this matter, alleging that the rates being charged by Defendant BNSF Railway Company (“BNSF”) for the transportation of coal from mine origins in the Powder River Basin (“PRB”) to AEP Texas’ Oklahoma Generating Station exceeded the maximum rates permissible under 49 U S C § 10701(d)(1) . Subsequently, the parties filed four rounds of evidence, briefs and a variety of other submissions After nearly all those filings were completed, the Board changed the very face of SAC proceedings through its rulemaking in *Major Issues in Rail Rate Cases*, STB Ex Parte No. 657 (Sub-No. 1) (STB served Oct. 30, 2006) (“*Major*

Issues”), *aff’d sub nom BNSF Ry. v STB*, 526 F.3d 770 (D.C. Cir. 2008). It also significantly changed its methodology for determining the railroad industry cost of capital in *Final COC Decision*, a methodology which, when applied to the SARR’s costs, can play a major role in SAC calculations.

On September 10, 2007, the Board issued a decision in this proceeding (“*September Decision*”) in which it determined that stand-alone costs exceeded stand-alone revenues, and that AEP Texas was not entitled to relief. *Id.* at 23. AEP Texas and BNSF both sought reconsideration of various elements of the Board’s decision, including the Board’s election to use a single-stage discounted cash flow (“DCF”) model for the computation of the TNR’s cost of capital. See AEP Texas Petition for Reconsideration (filed Oct. 22, 2007).

In its *Reconsideration Decision*, the Board granted reconsideration on the cost of capital issue, and directed AEP Texas and BNSF to address further the methodology that should have been applied in determining the TNR’s cost of capital and resulting SAC. *Id.* at 7-8. The Board instructed the parties to address the question whether the cost of capital figures should be restated, and requested that the parties develop at least two separate SAC calculations. *Id.* In the first calculation, the parties were asked to use a single-stage DCF for the period 1998-2005, and then change over to CAPM for 2006. In the second calculation, the parties implicitly were asked to use CAPM for all periods from 1998 through 2006. *Id.* The parties also were directed to

address how the Board should calculate the cost of equity beyond 2006 in the event that the Board did not adopt CAPM for the 1998-2006 period; *i.e.*, whether the Board should use only the 2006 CAPM-based cost of equity, or average the single-stage DCF cost of equity determinations from 1998-2005 with the CAPM-based 2006 cost of equity *Id.* at 8 In the event that the new SAC analyses demonstrated that the TNR's revenues exceed its costs, the parties were directed to apply the Maximum Markup Methodology ("MMM") to determine the appropriate maximum rates.

As AEP Texas demonstrates in this submission, it is necessary for the Board to revisit the cost of capital applicable to the TNR for the period 1998-2006, adopt CAPM for all years, and use the average of those years to calculate SAC for the 2007-2020 time period CAPM has been proven by the Board to be the superior methodology for determining the cost of equity, and there is no sound legal or policy basis for continuing to use an inferior methodology where, as here, the question of the proper cost of capital formulation has been in issue throughout the proceeding and both parties have had full opportunities to address it. At a minimum, CAPM must be used for 2005 and 2006, and all subsequent years. The Board then should grant the relief shown through the revised SAC analysis and the application of the MMM methodology

II. The Adoption of CAPM and Related Proceedings

1. Background

The Board and its predecessor have been determining an annual railroad industry cost of capital since the early 1980s, following the adoption of the procedures outlined in *Railroad Cost of Capital – 1981*, 365 I.C.C. 734 (1982) (“*COC 1981*”). The cost of capital is composed of the cost of debt and the cost of equity, with these components weighted by “the capital structure (the fraction of the capital from debt or equity on a market-value basis) of the railroad industry.” *Methodology to be Employed in Determining the R R Indus Cost of Capital*, STB Ex Parte No 664 (STB served Aug. 20 2007) at 2 (“*NOPR Decision*”).¹ In *COC 1981*, the ICC decided that the common equity portion of the cost of capital should be determined using what is known as a single-stage DCF model (*id* at 739), which essentially “calculates the average return on equity [] desired by investors by using the current dividend to price ratio (D/P) and a forecast of future growth,” which growth is assumed to continue in perpetuity. *NOPR Decision* at 2. In adopting the single-stage DCF model, the ICC considered other methodologies, including CAPM. *Id* at 6. However, at the time it was concluded that CAPM was a difficult method to implement, due to limitations of technology and data inputs, and a general lack of long-term experience with CAPM in the financial markets. *Id* ; *COC*

¹ The *NOPR Decision* originally was issued on August 14, 2007. However, the Board issued a corrected version of the *NOPR Decision* on August 20, 2007. References herein are to the August 20, 2007 decision.

1981 at 741 Nevertheless, the ICC did recognize in another proceeding that the CAPM methodology “appears to be a useful one” *Adequacy of Railroad Revenue (1978 Determination)*, 361 I.C.C. 79, 92 (1978) ²

In 1998, the Western Coal Traffic League (“WCTL”) expressed concerns to the Board that the single-stage DCF model was causing the cost of equity to be overstated, due to the circularity in the Board’s cost of capital methodology: “the cost of capital is high because analysts expect carrier earnings to grow, and carrier earnings grow because the cost of capital is high, which justifies higher rates and greater freedom from rate regulation premised on the perception of higher costs and claims of revenue inadequacy.” *Railroad Cost of Capital – 1997*, Ex Parte No 558 (Sub-No 1), Reply Comments of WCTL (filed April 10, 1998) at 4 WCTL also noted that the rising cost of equity and its potential application in stand-alone coal rate cases would unfairly burden SARRs because “a least-cost, most-efficient entity is essentially required to use a cost of capital based on a very different carrier, one with substantial asset write-ups and forecasted earnings growth that is not benchmarked to an appropriate level of risk” *Id* at 6. The Board did not act on those concerns at the time, citing a lack of specific remedy for this potential, but as yet unproven problem. *Railroad Cost of Capital – 1997*, 3 S.T.B. 176, 177 n.1 (1998)

² Neither CAPM nor a single-stage DCF was directly utilized in the 1978 revenue adequacy decision Instead, the Board set the cost of equity based on market value studies *Id* at 107

In the 2005 cost of capital proceeding,³ WCTL again asked the Board to address the disparity between the strong financial health of the major railroads and the ever growing industry cost of equity determination being made through the annual cost of capital process. WCTL explained that

[T]he cost of equity as calculated by the AAR is increasing not because the Railroads are suddenly viewed as riskier enterprises or have greater capital needs that are more likely to go unmet. Instead, the complete (but entirely tacit) explanation is that simply because the railroads are making greater revenues and profits, investment analysts expect the growth in railroads revenues and earnings to continue.

Cost of Capital – 2005, Reply Comments of WCTL (filed April 28, 2006), at 4-5.

WCTL's Witness Thomas D Crowley demonstrated that the single-stage DCF model combined with the improvements in the railroads' financial health produced an overstated cost of equity, because the methodology assumes a rate of growth for the railroads that was not sustainable in perpetuity *Id* , V.S Crowley, pp. 2-3

In issuing its 2005 cost of capital determination, the Board responded to the criticisms leveled by WCTL against the single-stage DCF by instituting a separate proceeding⁴ to review the cost of equity methodology. *Railroad Cost of Capital – 2005* at 8 . In its request for reconsideration, WCTL specifically asked that the Board make its

³ *Railroad Cost of Capital – 2005*, Ex Parte No 558 (Sub-No. 9) (STB served Sept. 20, 2006) ("*Railroad Cost of Capital – 2005*").

⁴ *Methodology to be Employed in Determining the R R Indus Cost of Capital*. STB Ex Parte No 664 (STB served Sept 20, 2006) ("*ANOPR Decision*")

2005 cost of capital determination contingent on any possible changes to the cost of equity methodology that the Board might adopt in the new proceeding.⁵ However, the Board declined *Railroad Cost of Capital – 2005*, Ex Parte No. 558 (Sub-No 9) (STB served Feb. 12, 2007) at 4-5 (“*Railroad Cost of Capital – 2005 Reconsideration*”)

WCTL appealed the Board’s 2005 cost of capital decision to the United States Court of Appeals for the District of Columbia Circuit.⁶ While the appeal was pending, the Board was re-evaluating its cost of equity methodology, and had under consideration the adoption of the CAPM methodology to determine the cost of equity *Final Decision COC* at 1. As explained in more detail below, in response to appellate arguments, raised on behalf of AEP Texas, that the Board’s refusal to reconsider general pre-2006 cost of capital determinations prejudiced litigants in pending cases, the Board represented that the application of the 2005 cost of capital determination (and possibly other years) in *this* case could be revisited, should a shift to the CAPM methodology produce materially different maximum rate results.

⁵ See WCTL Petition for Reconsideration (filed Oct. 10, 2006) at 3

⁶ *WCTL v STB*, No. 07-1064 (D.C. Cir).

2. Ex Parte No. 664

On September 20, 2006, the same day that the *Railroad Cost of Capital – 2005* decision was served, the Board issued its *ANOPR Decision* seeking comments on the merits of adopting CAPM to determine the railroad industry cost of equity. The AAR, WCTL and other interested parties submitted extensive comments on the Board’s proposal. *NOPR Decision* at 3. After review of those comments, the Board issued its *NOPR Decision* on August 14, 2007,⁷ wherein the Board formally proposed to adopt CAPM in lieu of the single-stage DCF procedure. *Id.* at 1.

The Board made several key findings with respect to the CAPM methodology. First, the Board noted that the simple, single-stage DCF methodology had “been displaced by more sophisticated and precise techniques to estimate the cost of equity.” *Id.* at 4. Next, the Board noted that the CAPM methodology “commands greater respect in the regulatory and academic community and dominates the private sector.” *Id.* at 6. Moreover, the Board recognized that the Federal Reserve Board had conducted a multi-year examination of cost of equity methodologies, and had settled on CAPM for its own purposes, noting that the model was a “well known, widely used and theoretically sound, model that was simple and transparent compared to other approaches.” *Id.* at 6 (citing Feb. 15, 2007 Transcript of Public Hearing in *Methodology to be Employed in Determining the R R Indus. Cost of Capital* at 21). Thus, the Board concluded that the

⁷ As noted, *supra*, the corrected *NOPR Decision* was issued on August 20, 2007.

CAPM procedure was “the superior financial model” that dominates mainstream financial markets. *Id*

After considering comments from all interested parties, the Board issued its final decision in *Ex Parte No 664*, adopting the CAPM methodology to determine the cost of equity component of its annual cost of capital determination. *Final COC Decision* at 2. The Board reiterated its findings that the CAPM methodology produced superior results, and that it was the most widely accepted method in use today. *Id* at 2, 6. Particularly relevant for this proceeding, the Board remarked that BNSF’s own cost of equity was considerably lower than the estimate of the 2006 cost of equity produced by the single-stage DCF model (11% to 13% versus 16.1%) (*id* at 2), and that the “railroads no longer seriously challenge the need to replace the 1981 [single-stage] DCF Model with more current approaches.” *Id* at 5.

3. AEP Texas' Positions Regarding the Cost of Capital

In its *September Decision*, the Board determined the TNR's cost of capital by utilizing the railroad industry cost of capital from the Board's prior annual cost of capital determinations (1998-2005), which relied on the single-stage DCF method for determining the cost of equity. *Id* at 107-108. The Board then used the weighted average cost of capital for those same years to determine the TNR's cost of capital for the period 2006-2020. *Id* at 108-109

In the evidentiary submissions preceding the Board's *September Decision*, BNSF had requested that the Board apply the AAR's proposed 2005 cost of capital to the TNR's DCF model, even though the 2005 cost of capital had not been adopted by the Board. *See* BNSF's Second Supplemental Reply Narrative (filed June 15, 2006) at 20. In its Second Supplemental Rebuttal, AEP Texas opposed BNSF's request, noting that the Board had not adopted the AAR's proposed 2005 figure, and that the proposed 2005 cost of capital overstated the railroad industry cost of equity. *See* AEP Texas Rebuttal Second Supplemental (filed July 14, 2006) at 19-20. AEP Texas reiterated some of the criticisms previously raised by WCTL, such as the illogic inherent in the notion that the railroads' improved financial health could push those same entities further away from revenue adequacy, and thereby justify charging still higher rates to captive shippers. *Id*

The Board did not address AEP Texas' arguments in detail in its *September Decision*. Rather, the Board stated that the 2005 general industry cost of capital

proceeding had been completed, and that the Board was in the process of determining how it would address capital costs for future periods. However, the Board did note that it did not intend to apply any new method that might be adopted to its determination of the 2005 *general industry* cost of capital. *September Decision* at 108.

4. Reconsideration and Intervening Events

On October 22, 2007, AEP Texas sought reconsideration of the Board's decision to rely on the single-stage DCF methodology to determine the cost of equity for 2005 and for the historical period 1998-2004, among other issues. AEP Texas pointed in particular to the Board's *NOPR Decision* of August 2007, wherein the Board signaled its intention to move to the CAPM methodology for the reasons highlighted *supra*. AEP Texas argued that this development supported reconsideration of the *September Decision*, issued only one month later, based on the same principles that the Board had relied on in applying the new SAC rules that it had developed in *Ex Parte No. 657 (Sub-No 1)* to pending cases. See AEP Texas Petition for Reconsideration (filed Oct. 22, 2007) at 6-13.

Between the filing of AEP Texas' Petition for Reconsideration and the Board's *Reconsideration Decision*, important developments occurred that should shape the Board's resolution of this proceeding. First, in defending its 2005 cost of capital decision in the Court of Appeals, the Board revised – or at least clarified – its position regarding the use of the CAPM procedures in pending rates cases. Specifically in response to arguments that its refusal to apply the CAPM methodology to determine the

2005 cost of capital would prejudice AEP Texas, the Board stated in its brief to the Court of Appeals that it would entertain the use of CAPM in this matter “if applying the new methodology would materially affect [the shipper’s] claim ” See Joint Brief of the Surface Transportation Board and United States of America at 46, *Western Coal Traffic League v STB*, No 07-1064 (D.C Cir. Oct. 24, 2007) (“*STB Brief*”).

Second, just two business days before oral argument in the appeal from the 2005 cost of capital decision, the Board issued its final decision in *Ex Parte No 664*, wherein it cemented its transition from the single-stage DCF model to the CAPM methodology for determining the cost of equity. *Final COC Decision* at 1 At the oral argument, the Board specifically represented to the Court of Appeals that rate case participants such as AEP Texas would be able to pursue the application of CAPM to cost of capital findings in pending cases, and the Board agreed that CAPM was superior to the single-stage DCF methodology for this purpose:

Judge Edwards: No, no, wait Like – I know they have that, but one of the remedies could be a retroactive adjustment?

Mr. Atkins. That could be a remedy they could seek of the Board Yes, Your Honor.

* * * *

Judge Edwards: No that would be the fight in the statutory proceeding. There isn’t any doubt that there are problems with the old methodology. Even I, who don’t like this stuff, could see this.

Mr. Atkins: There's no question that there – that the Board has found a better approach, and in the Board's view the capital asset pricing model –

Judge Edwards: Which means the preceding one was a worse approach

Mr. Atkins: That's right, Your Honor. . .

* * * *

Mr Atkins: [T]he way that this Court can resolve this case is by observing, as Your Honor observed, that the West [sic] Coal Traffic League has right to petition the Board to reopen the proceeding under the statute, and that provides them all of the relief that they really – that's really warranted in these circumstances.

. . .
I would observe, Your Honor, that Western Coal Traffic League's members have already made that type of petition before the Board in their two pending rate cases. So there are two rate cases. I believe both AEP Texas and Western Fuels are members of Western Coal Traffic League. But they've already petitioned the Board before the decision [Ex Parte No. 664] came out that they should apply whatever rule or adopt it retroactively to its case. So the issues will be teed up the Court and will be resolved in that separate proceeding which will be subject to judicial review

Transcript of Oral Argument in *WCTL v STB*, No. 07-1064 (D.C. Cir) at 10, 12, 14-15.

Shortly after the oral argument was held, the Court of Appeals dismissed the petition for review, holding that

Both parties agree that, in light of the January 17, 2008 decision of the Board, replacing the DCF model with CAPM to determine the railroad industry's cost of capital, WCTL can petition to reopen under § 722(c) and seek a retroactive correction of the 2005 cost of capital determination on grounds of "material error, new evidence, or substantially changed circumstances." We agree It is appropriate for the

Board to consider and decide in the first instance whether the 2005 cost of capital determination should be revised in light of the Board's 2008 decision and the findings accompanying that decision

WCTL v STB, No. 07-1064, slip op. at 3 (D.C Cir Feb. 1, 2008).

Subsequent to the Court's decision, the Board determined the cost of capital for 2006 using the CAPM methodology *Cost of Capital – 2006*, Ex Parte No. 558 (Sub-No 10) (STB served April 15, 2008) ("*Cost of Capital – 2006*")

III. The Board Should Use CAPM to Determine the TNR's Cost of Capital

The central issue raised by the Board's *Reconsideration Decision* is whether and to what extent the CAPM methodology should apply to the TNR's cost of equity for any of the time periods at issue, in lieu of the discontinued single-stage DCF methodology. CAPM is demonstrably superior to the single-stage DCF methodology, and the Board should use it to determine the TNR's cost of capital for all historic periods (1998-2006), with the historic average governing future time periods (2007-2020) If the Board declines to adopt this approach, however, despite the strong merits favoring it, at a minimum the Board should use CAPM to restate the 2005 cost of capital for the TNR, and then use the average of 2005 and 2006 for the remainder of the DCF period.

1. CAPM Is The Superior Model

The Board's examination of the CAPM model in *Ex Parte No 664* plainly showed that as found by the Federal Reserve Board and other significant entities, the

CAPM methodology is superior to the single-stage DCF model. Relying on a demonstrably inferior methodology in a pending case for convenience sake is hardly reasonable, given the consequential nature of the cost of capital with respect to the determination of the TNR's overall costs. Indeed, an individual adjudication such as this is exactly the circumstance in which the Board should place an emphasis on measuring the cost of equity as accurately as possible. *Accord Final COC Decision* at 6.

2. Single-Stage DCF Overstates the Cost of Equity

Hand in hand with the acknowledged superiority of CAPM versus single-stage DCF in determining the TNR's cost of capital is the recognized tendency of the single-stage DCF to overstate cost of equity estimates. As shown in Table 2, *infra*, a comparison of equity costs using CAPM and single-stage DCF for each of the years 1998 through 2005 shows that equity costs developed using CAPM were consistently lower than those derived using the single-stage DCF model, and consistently closer to disclosed, estimated equity costs for individual Class I railroads. *See Final COC Decision* at 2.⁸ These results confirm the Board's own stated concerns that the single-stage DCF model could result in the model "overstat[ing] the cost of equity." *Final COC Decision* at 4

⁸ *See also* Standard & Poor's February 21, 2004 Stock Report for BNSF estimating a cost of equity of 9.1%

3. A SARR Should Benefit from the Same Advantages as Those of Its Real-World Counterparts

The Board's decision to move to CAPM was based in part on a finding that real-world equity costs and the regulatory cost of equity were diverging in a manner that threatened to distort the regulatory process, and unfairly prejudice individual litigants such as AEP Texas in proceedings such as this. Indeed, the Board in its *NOPR Decision* demonstrated the disparity in cost of equity levels using CAPM and the single-stage DCF by comparing the results of using the two methods for the period 1998-2005, exactly the period at issue here. *Id.* at 7.⁹ The Board's chart demonstrated that real-world railroad equity costs were lower, sometimes considerably lower, when determined using CAPM, and its preliminary calculations are confirmed by AEP Texas' specific calculations shown below.

As a least-cost, most-efficient market entrant, the TNR ought to benefit from the real-world cost of capital just as BNSF did during the relevant period.¹⁰ The Board specifically held in the *September Decision* that the TNR is bound operationally by the real-world realities of railroading (*id.* at 16); it should be permitted to benefit from those realities as well. Indeed, in a very real sense, denying the TNR the use of the

⁹ The final CAPM methodology adopted by the Board in *Final COC Decision* resulted in somewhat higher costs of equity during those periods than those shown in the referenced chart.

¹⁰ Applying a higher than real-world cost of capital to the TNR also introduces the possibility of an unfair and impermissible cross-subsidy in favor of the residual incumbent railroad, BNSF.

superior, CAPM methodology would stand as an impermissible barrier to entry. *West Tex Utils Co v Burlington N R R*, 1 S.T.B. 638, 670 (1996) (A barrier to entry in the SAC context is defined as “any costs that a new entrant must incur that were not incurred by the incumbent.”) The Board twice has rejected the application of a higher than industry average cost of capital to a SARR, based on these principles. See *FMC Wyo Corp v Union Pac R R*, 4 S.T.B. 699, 846 (2000) (“*FMC*”) (“it would be inappropriate and unfair to allow UP to charge captive shippers a higher rate than otherwise be justified based on a risk that its investors do not face”); *Wisconsin Power and Light Co v Union Pac R R*, 5 S T B 955, 982-984 (2001) (“*Wisconsin Power*”) (reiterating its findings from *FMC*). Now that the previously employed method of determining that industry average cost of equity has been found to overstate actual costs, the earlier industry cost of capital figures should be rejected as well.

**4. Application of CAPM is Consistent With the
Board’s Application of the Major Issues Rules**

Long after the initial record closed in this case, the Board proposed a series of sweeping changes to the rules governing the adjudication of coal rate disputes in *Major Issues*. Many of these new rules departed significantly from the standards that the Board had employed for many years, standards on which the evidence submitted in this case had been based. Nevertheless, the Board applied its new rules in its *September Decision*, relying on its earlier announcement in *Major Issues* that the new rules would apply to

pending cases,¹¹ and implicitly on the fact that the parties had been given an opportunity to address and submit evidence under the new rules. See *Major Issues* at 75 (“we have decided to apply the other changes regarding the proper application of the SAC test to all pending cases”).

The application of CAPM to determine the TNR’s cost of equity is no different than the application of the new procedures established in *Major Issues*, except that the impact of the application of the *Major Issues* rule is more significant in this context. As with *Major Issues*, the Board already had begun *Ex Parte No. 664* nearly a year before issuing its *September Decision*.¹² The 2005 cost of capital proceeding already had placed the use of single-stage DCF in doubt, and AEP Texas specifically had raised the issue of the inflated cost of equity proposed in that proceeding in this case.¹³ The parties clearly were on notice that the single-stage DCF method could be replaced at any

¹¹ AEP Texas notes that this case is still “pending.” The Board’s *September Decision* does not represent a final decision in this case because the Board has specifically granted reconsideration with respect to the proper calculation of the cost of capital applicable to the TNR. See *United Transp. Union v. ICC*, 871 F.2d 1114, 1116 (D.C. Cir. 1989).

¹² The *ANOPR Decision* was served September 20, 2006 and the *September Decision* was served September 10, 2007.

¹³ AEP Texas addressed the issue of the 2005 cost of capital in its July 14, 2006 filing in this proceeding, and the matter of the 1998-2004 time period in its Petition for Reconsideration. BNSF had opportunities to address these issues, which it exploited, and has been given yet another opportunity at this stage to make its arguments regarding the proper cost of capital that should be used for all relevant years. Under the circumstances, no procedural prejudice can be said to result from the Board’s restating the TNR’s cost of capital from 1998 forward.

time, and the Board has held that when parties are on notice that a methodological issue is in dispute, the Board does not disturb any “any settled expectations by applying these final changes to the pending cases.” *Major Issues* at 75, *aff’d sum nom BNSF Ry Co v STB*, 526 F.3d 770, 784 (D C. Cir. 2008) (“[a] new rule may be applied retroactively to the parties in an ongoing adjudication, so long as the parties before the agency are given notice and an opportunity to offer evidence bearing on the new standard, and the affected parties have not detrimentally relied on the established legal regime”) (citing *Consol Edison Co v FERC*, 315 F 3d 316, 323 (D C Cir. 2003))

5. The Application of CAPM to All Years is Consistent With the Board’s Action in Other Cases

In addition to applying the newly promulgated *Major Issues* rules in this case, the Board frequently has applied new or changed standards and methodologies in pending matters. For example, in *Simplified Standards for Rail Rate Cases*, the Board revised its method for calculating revenue-to-variable cost ratios, noting a “flaw” in its then-current procedure used in small rate cases. *Simplified Standards for Rail Rate Cases*, STB Ex Parte No. 646 (Sub-No. 1) (STB served Sept. 5, 2007) at 19. The Board then directed the parties to three pending small rates cases to use the revised calculations.¹⁴

¹⁴ *E I Dupont De Nemours & Co v CSX Transp Inc*, Docket No 42099, 42100, and 42101 (STB served Sept. 7, 2007)

Likewise, in *Arkansas Power & Light Co v Burlington N R R Co*, 3 I.C.C 2d 757, 765 (1987), the ICC applied a revised methodology for determining revenue adequacy that it had developed in a separate rulemaking decided during the pendency of that rate case, in order to determine whether the defendant railroad was revenue adequate. The application of CAPM here is not materially different from these other circumstances, particularly in light of that fact that BNSF has been on notice for several years that the continued legitimacy of the single-stage DCF approach was in doubt.

The Board also has made many other changes to its rules and procedures that have impacted pending cases. For example, the Board shifted from MMP to MSP during the Eastern Coal Rate cases, and the Board acted *sua sponte* to extend the due dates for opening evidence in the *Wisconsin Power* case so that the parties could incorporate and take notice of the Board's findings in *FMC. Wisconsin Power and Light Co v Union Pacific R R Co*, Docket No. 42051 (STB served Apr. 24, 2000).¹⁵

**6. Restating the Cost of Capital Using CAPM
Can be Limited to This Proceeding**

It bears noting that correcting the cost of capital findings for the TNR in each of the historic years at issue in this case (*i.e.*, 1998-2005) would neither equate to

¹⁵ The Board's order came just four (4) days before opening evidence was due in the *Wisconsin Power* proceeding, and about two weeks before the Board issued its decision in *FMC*.

nor require a restatement of the railroad industry cost of capital generally. While the Board typically uses its annual industry cost of capital determinations in establishing the cost of capital for a SARR (*Final COC Decision* at 1), the Board is not bound to do so, and the Board's previous decisions in this area are not off-limits to review ¹⁶ *ANOPR Decision* at 1 ("The annual determination of the railroad industry's cost of capital is used in evaluating the adequacy of railroad revenues each year. It *may* also be utilized in other Board proceedings, including, but not necessarily limited to, those involving the prescription of maximum reasonable rates ") (emphasis added), *West Texas Util Co v The Burlington N & S F Ry Co* , Docket No. 41191 (STB served May 29, 2003) at 3. In any individual adjudication, the Board can and should base its decision on the best evidence in the record. *FMC* at 731 ("We base our SAC analysis on the best projections that are available on the record we remain available to revisit and adjust, as necessary, our findings and actions here.") To be sure, use of the Board's annual industry cost of capital determinations simplifies the process, but such evidence can be supplanted at any time by superior or more accurate data *Major Issues* at 75. The use of CAPM to determine the cost of equity for the TNR is plainly warranted due to its acknowledged superiority and the fact that the cost of capital has been and remains an open issue in this case Such an outcome would not disturb previous industry-wide cost of capital

¹⁶ As the D.C. Circuit noted, the 2005 cost of capital determination is subject to reopening *WCTL v STB*, No 07-1064, slip op at 3 (D.C. Cir Feb 1, 2008).

determinations for revenue adequacy or other purposes, a point which the Board already has acknowledged with respect to 2005. *See* Transcript of Oral Argument in *WCTL v STB*, No 07-1064 (D.C. Cir) at 14-15, *STB Brief* at 45-46.

**7. At a Minimum, the Board Should Restate the
TNR's 2005 Cost of Capital Using CAPM**

As discussed *supra*, the proper course for the Board to follow here is to use CAPM to calculate the cost of equity for the TNR for each of the historic years at issue (1998-2005) ¹⁷ Should the Board decline to do so, however, then at a minimum the Board should restate the 2005 cost of capital using CAPM.

The record clearly establishes that AEP Texas timely raised the issue of the proper method for calculating the 2005 cost of capital, and argued against inclusion of a single-stage DCF derived cost of equity figure in the determination of SAC in this case. *See* AEP Texas' Rebuttal Second Supplemental Evidence, July 14, 2006 at 19-20. The record also is clear that before the Court of Appeals, the Board defended its inclusion of that 2005 figure in the *September Decision* by emphasizing AEP Texas' right to seek a redetermination if – as in fact occurred – the Board changed its methodology in a manner that would have made a material difference in the outcome.

[N]othing in the Board's AEP decision deprives the shipper there of its statutory right to seek reopening of its individual rate case (as opposed to the broader 2005 cost-of-capital

¹⁷ For 2006, of course, equity costs already have been determined using CAPM. *See Cost of Capital – 2006*

proceeding) if applying the new methodology would materially affects its claim. . . . In the meantime, the Board has not prejudged any future request to reopen that case, or any other individual adjudicatory proceeding.

STB Brief at 46-47.

As shown below in Table 6, substituting a cost of capital derived using a CAPM cost of equity for the 2005 figure used by the Board in the *September Decision* has a significant effect on the SAC result, and the resulting maximum reasonable rates for the Oklahoma movement. Consistent with its assurances to the Court of Appeals, on reconsideration the Board at a minimum must correct the 2005 cost of capital through application of the CAPM formula.

8. Mixing CAPM and Single-Stage DCF Methodologies for Future Cost of Capital Estimates is Not Appropriate

The Board typically averages the cost of capital for a SARR's historical period (beginning of construction through the most recent cost of capital determination) to set the cost of capital for the future periods of the DCF. *September Decision* at 107-108. In this case, the full historic period is 1998 through 2006. While AEP Texas proposed a modification to the averaging approach in earlier rounds of evidence,¹⁸ the Board rejected AEP Texas' adjustment (*id.* at 107). The Board's averaging mechanism therefore is left as the means to develop an estimate of the cost of capital for future

¹⁸ AEP Texas proposed that the TNR should be able to refinance certain debts incurred during the construction and early operation of the railroad, to reflect lower, later-prevailing interest rates that the TNR could have obtained.

periods. In the event that the Board does not use CAPM to restate the cost of equity for all periods (1998-2006), the Board has asked the parties to address the issue whether it should calculate the average for future periods using (i) just the 2006 CAPM, or (ii) an average of the single-stage DCF (1998-2005) and CAPM (2006)

As AEP Texas has explained *supra*, the most sound approach to follow is to use CAPM for all periods. However, in the event the Board does not use CAPM for all years, it should use an average of the 2005 and 2006 cost of capital derived using CAPM for the cost of equity. As the Board noted in *Ex Parte No. 664*, the single-stage DCF's perpetual growth rate is unsustainable. *Final COC Decision* at 6. Including eight (8) years of single-stage DCF cost of equity against one year of a CAPM-based cost of equity in an average cost of equity for the TNR would perpetuate an untenable growth rate and overstate capital costs for the TNR – a result that is plainly at odds with the expected rate of revenue growth for the TNR. See electronic workpaper “Average Growth Rates.xls”. The following table illustrates the problem:

Table 1		
Comparisons of Assumed Annual Growth Rates in Single-Stage DCF Costs of Equity and Annual Growth Rate in TNR Revenues		
	<u>Year</u>	<u>Assumed Perpetual Annual Growth Rates in Single-Stage DCF Costs of Equity</u>
1	1998	11.18%
2	1999	10.89%
3	2000	10.66%
4	2001	11.00%
5	2002	11.13%
6	2003	11.00%
7	2004	11.39%
8	2005	13.66%
9	2006 <u>1/</u>	9.81%
10	Average Growth Rate <u>2/</u>	11.19%
11	Average Annual Growth Rate in TNR Revenues	2.44%
<u>1/</u>	Implicit growth rate in 2006 CAPM cost of equity assuming it was calculated using a single-stage DCF approach	
<u>2/</u>	Simple average of lines 1-9	
Source: Average Growth Rates.xls		

If the average of the 2005 and 2006 CAPM-derived cost of equity is used as the basis for determining the TNR's capital costs going forward, the expected growth rate of 9.45%,¹⁹ while still high, is at least closer to the 6% or 7% that financial experts believe is sustainable over the long-term. See S.P. Pratt, *Cost of Capital: Estimations and Applications* (2d ed. 2002) at 113 ("It is theoretically impossible for the sustainable

¹⁹ See electronic workpaper "Average Growth Rate.xls."

perpetual growth rate for a company to significantly exceed the growth rate in the economy. Anything over 6-7% perpetual growth rate should be questioned carefully.”)

In sum, the adoption of the CAPM methodology is just one of many changes that the Board has made through the life of this case. The Board’s reasons for adopting CAPM were compelling, and so too are the reasons to utilize it fully here

IV. Revised Maximum Rate Calculations

Pursuant to the Board’s *Reconsideration Decision*, AEP Texas has performed the alternative calculations using the CAPM and single-stage DCF methodologies that were directed by the Board. AEP Texas also executed the relevant calculations based on 2005 and 2006 CAPM-derived capital costs, with an average of those years projected forward. The methods and results are summarized below

1. Revisions to the Cost of Capital using CAPM

AEP Texas calculated the cost of equity for 1998-2005 using the Board’s CAPM methodology as adopted in *Ex Parte No. 664*. The resulting calculations were applied to the TNR along with the Board’s 2006 cost of capital, and then averaged together to derive a cost of equity for the balance of the DCF period.

a. Revised Calculations for 1998-2005

In its annual rail industry cost of capital determinations for the years 1998 through 2005, the Board calculated the cost of equity using the single-stage DCF

approach *Final COC Decision* at 6. Pursuant to the *Reconsideration Decision*, AEP Texas restates these calculations using CAPM.

AEP Texas utilized the procedures detailed by the Board in *Cost of Capital – 2006* to determine the CAPM-based cost of equity for each of the years 1998-2005.²⁰ AEP Texas first developed railroad industry-specific common equity beta estimates for 1998 through 2005. Beta estimates were developed using 260 period ordinary least squares regression models employing publicly available weekly merger-adjusted railroad stock price data and S&P 500 Price Return data obtained from Yahoo Finance and the Center for Research on Security Prices (“CRSP”), common shares outstanding data from the railroads’ SEC Form 10-K, Form 10-Q reports and CRSP, and Three-Month T-Bill data obtained from the Federal Reserve.²¹

AEP Texas then calculated railroad industry CAPM costs of equity using each year’s calculated beta estimate along with the historic market equity risk premium from 1926 through each study year as developed by Morningstar, Inc.,²² and the annual

²⁰ Where applicable, AEP Texas revised the railroads included in the industry-wide cost of capital to reflect the railroads that the Board actually included in each year of the relevant period. So, for example, KCS was part of the industry cost of capital determination for 1998 and 1999, and AEP Texas therefore included it in the revised calculations. AEP Texas also accounted for rail mergers that occurred during the historical periods in which data was used to calculate the CAPM cost of equity.

²¹ Adjustments also were made to reflect the closing of the New York Stock Exchange trading activities following the attacks on September 11, 2001

²² Morningstar, Inc has developed the market equity risk premium for each period
(continued...)

average 20-Year T-Bond data obtained from the Federal Reserve. The CAPM-based cost of equity for the railroad industry is shown in Table 2 below:

Table 2 CAPM Railroad Industry Cost of Equity v. SSDCF		
<u>Year</u>	<u>CAPM Cost of Equity</u>	<u>Single-Stage DCF Cost of Equity</u>
1998	12.34%	13.11%
1999	11.98%	12.90%
2000	11.06%	13.90%
2001	10.67%	12.80%
2002	10.01%	12.60%
2003	9.92%	12.70%
2004	10.35%	13.16%
2005	10.57%	15.18%
Source: Cost of Capital Summary.xls		

Next, AEP Texas used the CAPM cost of equity estimates to restate the railroad cost of capital for the years 1998 to 2005. Railroad industry costs of debt, costs of preferred equity and debt, and preferred equity market capitalization values were obtained from the Board's railroad industry cost of capital decisions for each year in the relevant period. These figures then were combined with the CAPM cost of equity and

²²(...continued)

between 1926 and 2007. AEP Texas used Morningstar, Inc.'s market risk premium on a cumulative basis for each year. For example, for its CAPM calculation of the 1998 railroad cost of equity, AEP Texas used Morningstar, Inc.'s calculation of the market risk premium from 1926 through 1998. For its 2003 railroad cost of equity calculation, it used the 1926 to 2003 historic market risk premium. In this manner, the cost of equity estimate reflects the historic risk premium applicable through that particular year.

common equity market capitalization rates to restate the railroad industry cost of capital.²³

Table 3 shows the restated railroad costs of capital:

Table 3 Restated Railroad Industry Cost of Capital Using CAPM v. SSDCF		
<u>Year</u>	<u>CAPM</u> <u>Cost of Capital</u>	<u>Single-stage DCF</u> <u>Cost of Capital</u>
1998	10.2%	10.7%
1998	10.2%	10.8%
2000	9.6%	11.0%
2001	9.0%	10.2%
2002	8.3%	9.8%
2003	7.8%	9.4%
2004	8.4%	10.1%
2005	9.0%	12.2%
Source: Cost of Capital Summary.xls		

b. Application of the Restated Cost of Capital Figures to the TNR

AEP Texas applied the revised CAPM-based industry cost of capital figures for 1998-2006 to the TNR DCF e-workpapers. See "DCF WITH CAPM COST OF CAPITAL.xls."²⁴ A simple average of the CAPM cost of equity also was used for the

²³ The equity market caps developed for the Board's 1998 through 2005 single-stage DCF cost of capital decisions were derived using average monthly equity market caps for the subject railroads. In *Railroad Cost of Capital – 2006*, equity market caps were recalculated using average weekly market caps for each railroad. AEP Texas utilized the weekly procedure for its restatement of the cost of capital for the 1998-2005 period.

²⁴ For consistency, AEP Texas also modified the TNR's revenues to reflect the use
(continued)

period 2007-2020 As shown in Table 4. for each time period the TNR's revenues exceed its costs.

<u>Year</u>	<u>Annual Stand-Alone Requirement</u>	<u>Stand-Alone Revenues</u>	<u>Overpayments Or Shortfalls In Revenues</u>	<u>PV Difference</u>	<u>Cumulative PV Difference</u>
2000	\$343,276,374	\$383,578,120	\$40,301,746	\$39,962,511	\$39,962,511
2001	624,632,883	709,759,415	85,126,532	78,778,033	118,740,544
2002	623,195,944	719,687,819	96,491,875	82,296,036	201,036,580
2003	636,687,739	693,839,789	57,152,050	44,860,026	245,896,606
2004	677,602,685	730,778,510	53,175,824	36,724,766	282,621,372
2005	711,969,986	738,630,584	26,660,598	16,715,294	299,336,667
2006	742,485,996	765,299,973	22,813,977	12,864,267	312,200,933
2007	760,684,594	790,566,921	29,882,327	15,476,119	327,677,052
2008	770,912,907	798,728,042	27,815,134	13,155,722	340,832,773
2009	786,101,131	824,074,035	37,972,904	16,401,864	357,234,638
2010	795,796,311	836,283,440	40,487,129	15,970,638	373,205,275
2011	814,675,367	862,619,868	47,944,501	17,271,496	390,476,772
2012	832,640,280	907,076,907	74,436,627	24,488,587	414,965,358
2013	851,339,054	931,484,927	80,145,873	24,079,312	439,044,671
2014	869,104,097	951,654,971	82,550,874	22,650,118	461,694,789
2015	883,911,763	964,012,292	80,100,529	20,071,049	481,765,838
2016	903,968,583	989,944,245	85,975,662	19,674,155	501,439,993
2017	926,842,984	1,022,701,791	95,858,807	20,032,653	521,472,646
2018	949,851,685	1,055,733,783	105,882,099	20,207,606	541,680,252
2019	972,681,080	1,089,826,904	117,145,824	20,417,615	562,097,867
2020	1,004,133,381	1,140,110,293	135,976,912	21,643,588	583,741,456

²⁴(.. continued)
of CAPM in the URCS Phase III variable cost component utilized under the ATC revenue division methodology See electronic workpaper "TNR COAL TRAF and REV 0100-0603 REB_ATC_021607_STB ATC_1.xls" In addition, AEP Texas included the corrected revenue figures for the Big Cajun movement, which is explained in Section V-2, below

c. Calculations Using an Average of Single-Stage DCF and 2006 CAPM for Future Periods

In compliance with the Board's directive, AEP Texas compared the TNR's SAC revenues to SAC costs if the single-stage DCF cost of capital was used for the period 1998-2005, the CAPM cost of capital was used for 2006, and a simple average of the 1998-2006 costs of capital was used for the period 2007-2020. As demonstrated *supra*, this approach is neither sound nor logical, and overstates applicable capital costs. Under this scenario, the TNR's revenues marginally exceed stand-alone costs over the life of the DCF period. See DCF WITH 2006 CAPM AND AVERAGE OF EQUITY.xls

d. Calculations Using the 2006 Cost of Capital for Future Periods

AEP Texas also compared the TNR's revenues and costs using the 2006 CAPM-based cost of capital for the period 2006-2020, and the single-stage DCF-based cost of capital for the period 1998-2005. As shown in Table 5 below, under this approach the TNR's revenues exceed its costs over the life of the DCF period

Table 5
Summary of DCF Results - 1998 - 2005 Based on SSDCF, 2006 - 2020 Based on 2006 CAPM

<u>Year</u>	<u>Annual Stand-Alone Requirement</u>	<u>Stand-Alone Revenues</u>	<u>Overpayments Or Shortfalls In Revenues</u>	<u>PV Difference</u>	<u>Cumulative PV Difference</u>
2000	\$359,721,205	\$383,578,120	\$23,856,915	\$23,632,464	\$23,632,464
2001	655,891,508	709,759,415	53,867,906	49,353,827	72,986,291
2002	655,043,380	719,687,819	64,644,439	53,665,338	126,651,628
2003	669,244,070	693,839,789	24,595,718	18,563,691	145,215,320
2004	711,676,491	730,778,510	19,102,018	12,306,093	157,521,412
2005	747,206,560	738,630,584	(8,575,976)	(4,708,191)	152,813,221
2006	779,429,281	765,299,973	(14,129,308)	(7,967,185)	144,846,036
2007	798,438,711	790,566,921	(7,871,790)	(4,049,925)	140,796,111
2008	809,297,634	798,728,042	(10,569,593)	(4,961,593)	135,834,517
2009	825,113,453	824,074,035	(1,039,418)	(445,187)	135,389,330
2010	835,424,911	836,283,440	858,529	335,503	135,724,833
2011	854,939,572	862,619,868	7,680,295	2,738,478	138,463,311
2012	873,773,732	907,076,907	33,303,175	10,834,437	149,297,748
2013	893,574,071	931,484,927	37,910,856	11,253,141	160,550,889
2014	912,491,415	951,654,971	39,163,555	10,606,735	171,157,624
2015	928,476,365	964,012,292	35,535,927	8,781,257	179,938,881
2016	949,733,851	989,944,245	40,210,394	9,066,023	189,004,904
2017	973,835,030	1,022,701,791	48,866,761	10,052,672	199,057,576
2018	998,109,440	1,055,733,783	57,624,343	10,815,918	209,873,494
2019	1,022,244,777	1,089,826,904	67,582,127	11,573,872	221,447,366
2020	1,055,044,596	1,140,110,293	85,065,697	13,292,013	234,739,378

e. Calculations Using the 2005 and 2006 CAPM-based Cost of Capital for Future Periods

Finally, AEP Texas compared the TNR's revenues and costs using the average of the 2005 and 2006 CAPM-based cost of capital for the period 2007-2020, and the single-stage DCF-based cost of capital for the period 1998-2004. As discussed *supra*, if the Board does not adopt the preferred course and apply CAPM to all relevant years, its

prior assurances to AEP Texas and the Court of Appeals require this alternative. Table 6 shows that under this approach, the TNR's revenues exceed its costs over the life of the DCF period.

Table 6 Summary of DCF Results - 1998 - 2004 Based on SSDCF, 2005 & 2006 Based on CAPM 2007 through 2020 Based on Average of 2005 and 2006 CAPM					
<u>Year</u>	<u>Annual Stand-Alone Requirement</u>	<u>Stand-Alone Revenues</u>	<u>Overpayments Or Shortfalls In Revenues</u>	<u>PV Difference</u>	<u>Cumulative PV Difference</u>
2000	\$355,446,932	\$383,578,120	\$28,131,188	\$27,864,208	\$27,864,208
2001	647,766,895	709,759,415	61,992,520	56,792,755	84,656,963
2002	646,765,725	719,687,819	72,922,094	60,533,593	145,190,556
2003	660,782,162	693,839,789	33,057,626	24,897,360	170,087,915
2004	702,820,167	730,778,510	27,958,342	18,011,602	188,099,517
2005	738,048,014	738,630,584	582,569	365,251	188,464,769
2006	769,827,134	765,299,973	(4,527,161)	(2,552,760)	185,912,009
2007	788,625,816	790,566,921	1,941,105	1,005,302	186,917,311
2008	799,320,833	798,728,042	(592,792)	(280,373)	186,636,938
2009	814,973,530	824,074,035	9,100,505	3,930,836	190,567,774
2010	825,124,808	836,283,440	11,158,632	4,401,657	194,969,432
2011	844,474,265	862,619,868	18,145,602	6,536,760	201,506,192
2012	863,082,494	907,076,907	43,994,413	14,473,534	215,979,725
2013	882,596,519	931,484,927	48,888,408	14,688,208	230,667,933
2014	901,214,361	951,654,971	50,440,609	13,839,778	244,507,711
2015	916,893,316	964,012,292	47,118,976	11,806,754	256,314,466
2016	937,838,730	989,944,245	52,105,515	11,923,514	268,237,979
2017	961,621,050	1,022,701,791	61,080,741	12,764,704	281,002,683
2018	985,566,482	1,055,733,783	70,167,301	13,391,434	294,394,117
2019	1,009,362,384	1,089,826,904	80,464,520	14,024,346	308,418,464
2020	1,041,811,962	1,140,110,293	98,298,331	15,646,249	324,064,712

2. Application of the MMM Methodology

With the appropriate application of CAPM, the TNR's revenues exceed its costs. In accordance with the Board's *Reconsideration Decision*, therefore, AEP Texas has calculated the applicable maximum SAC rates using the MMM methodology adopted in *Major Issues*. AEP Texas presents the most pertinent result, wherein CAPM is applied for all periods (including an average of the historical period applied to the period 2007-2020), in Table 7 below.

Table 7		
MMM Rate For TNR Traffic		
Using CAPM for All Periods		
	Time Period (1)	MMM Rate (2)
1	2Q 2000	\$12.62
2	3Q 2000	\$12.44
3	4Q 2000	\$12.65
4	1Q 2001	\$12.20
5	2Q 2001	\$12.16
6	3Q 2001	\$12.28
7	4Q 2001	\$12.26
8	1Q 2002	\$11.59
9	2Q 2002	\$11.35
10	3Q 2002	\$11.29
11	4Q 2002	\$11.88
12	1Q 2003	\$12.18
13	2Q 2003	\$13.56
14	3Q 2003	\$13.64
15	4Q 2003	\$13.64
16	2004	\$14.32
17	2005	\$18.47
18	2006	\$19.55
19	2007	\$18.94
20	2008	\$19.49
21	2009	\$18.67
22	2010	\$18.75
23	2011	\$18.35
24	2012	\$16.33
25	2013	\$16.47
26	2014	\$16.82
27	2015	\$17.48
28	2016	\$17.62
29	2017	\$17.55
30	2018	\$17.51
31	2019	\$17.44
32	2020	\$16.98

See "AEP Texas MMM Model - All CAPM xls." The MMM calculations for the other scenarios where the TNR's revenues exceed its costs are detailed in electronic

workpapers “AEP Texas MMM - 2006 CAPM.xls” and “AEP Texas Model - 2005 and 2006 CAPM.xls.”

V. Other Modifications and Corrections

1. Updating of URCS Phase III Variable Costs for the AEP Texas Traffic

In order to provide a consistent basis on which to determine the applicable maximum rates for AEP Texas’ coal traffic, AEP Texas has recalculated the URCS Phase III variable costs in accordance with Board’s procedures in *Major Issues*, with modifications to reflect the CAPM-derived cost of capital for the period in which URCS data is available (2000-2005).²⁵ The results of this revised analysis are shown in electronic workpaper “AEPTX PHASE III WEIGHTED CAR TYPE xls ”

2. Technical Correction to the Revenue Formula for Big Cajun

As a part of the process of updating the TNR revenue calculations for this fourth supplemental round of evidence, AEP Texas conducted an in depth review of the detailed worksheets and calculations that are used to develop the TNR revenues. As a result of this review, AEP Texas identified a technical error in the workpapers relied on by the Board in its *September Decision*. In particular, a formula error was found in the rate forecast module for the Big Cajun coal shipments. The effect of this formula error was an understatement of the Big Cajun coal rates (and revenues) for the years 2004

²⁵ The URCS data for 2006 is available, but it did not require modification to reflect the CAPM-based COC

through 2020. AEP Texas has corrected the technical error that resulted in incorrect Big Cajun coal rates (and resulting revenues) in its restatement. See electronic workpaper “TNR COAL REVENUE FORECAST 2-16-2007_ATC_STB_1_(TECH CORR CAJUN) xls.” tab “Rate Forecasts,” cells AF127 to AI127.

3. Technical Correction to Equity Flotation Cost

As mentioned *supra*, AEP Texas proposed that the TNR could take advantage of declines in the average cost of capital after 2000 to refinance higher price debt incurred during the construction phase²⁶ Under this approach, the TNR also included as part of its cost of refinancing activities flotation costs for equity placement. The STB rejected the TNR’s refinancing of its financial instruments in its *September Decision*, and continued to rely upon the weighted average cost of debt for the 1998 to 2000 TNR construction period.

While the STB updated the DCF model to include the 1998 to 2002 costs of debt based on its rejection of AEP Texas’ refinancing activities, the STB did not correct for the equity flotation costs that AEP Texas added specifically on account of its refinancing efforts. Since the STB rejected AEP Texas’ refinancing activities, it should have backed-out all refinancing related costs, including the equity flotation costs that AEP Texas included in its SAC presentation.²⁷ To correct for this error, AEP Texas has

²⁶ See AEP Texas Opening at III-G-4 and AEP Texas Rebuttal at III-G-1.

²⁷ The STB has previously rejected equity flotation costs in SAC presentations.

(continued)

removed the equity flotation costs mistakenly included in the STB's *September Decision* DCF model. See electronic workpapers "DCF WITH 2006 CAPM COST CAPITAL.xls." and "DCF with 2005 2006 CAPM and 2005 2006 average of equity.xls "

VI. Maximum Rate Results

Table 8, below, summarizes the maximum reasonable rates for coal service to Oklaunion based upon the evidence summarized herein, including the application of CAPM to all relevant years and to the establishment of the applicable jurisdictional threshold. In accordance with the Board's directive, maximum rate results under the other scenarios where TNR revenues exceed costs are shown in electronic workpapers "AEP Texas MMM Model - 2006 CAPM.xls" and "AEP Texas MMM Model - 2005 and 2006 CAPM.xls."

²⁷(...continued)

See *Wisconsin Power* at 1040, *Texas Mun Power Agency v Burlington N and Santa Fe Ry*, 6 S.T.B. 573, 751 (2003), *Pub Serv Co of Colo d/b/a Xcel Energy v Burlington N and Santa Fe Ry*, STB Docket No. 42057 (STB served June 8, 2004) at 76.

Table 8
Summary of Maximum Rate Calculations for Issue Traffic

	<u>Time Period</u> (1)	<u>Paid Rate</u> (2)	<u>Phase III Variable Cost 1/</u> (3)	<u>Jurisdictional Threshold 2/</u> (4)	<u>MMM Rate 3/</u> (5)	<u>Maximum Rate 4/</u> (6)
1	2Q 2000	\$15 33	\$8 04	\$14 47	\$12 62	\$14 47
2	3Q 2000	\$15 33	\$8 41	\$15 14	\$12 44	\$15 14
3	4Q 2000	\$15 33	\$8 69	\$15 63	\$12 65	\$15 63
4	1Q 2001	\$15 59	\$8 75	\$15 75	\$12 20	\$15 75
5	2Q 2001	\$15 59	\$8 86	\$15 95	\$12 16	\$15 59 5/
6	3Q 2001	\$15 59	\$8 84	\$15 92	\$12 28	\$15 59 5/
7	4Q 2001	\$15 59	\$8 68	\$15 62	\$12 26	\$15 59 5/
8	1Q 2002	\$15 36	\$8 34	\$15 01	\$11 59	\$15 01
9	2Q 2002	\$15 36	\$8 63	\$15 54	\$11 35	\$15 36 5/
10	3Q 2002	\$15 36	\$8 62	\$15 52	\$11 29	\$15 36 5/
11	4Q 2002	\$15 36	\$9 05	\$16 29	\$11 88	\$15 36 5/
12	1Q 2003	\$16 78	\$9 04	\$16 28	\$12 18	\$16 28
13	2Q 2003	\$16 78	\$8 85	\$15 92	\$13 56	\$15 92
14	3Q 2003	\$16 78	\$8 79	\$15 82	\$13 64	\$15 82
15	4Q 2003	\$16 78	\$8 90	\$16 03	\$13 64	\$16 03
16	2004	\$18 83	\$9 32	\$16 77	\$14 32	\$16 77
17	2005	\$19 68	\$8 94	\$16 09	\$18 47	\$18 47
18	2006	\$20 10	\$10 79	\$19 42	\$19 55	\$19 55
19	2007	\$20 26	\$10 82	\$19 48	\$18 94	\$19 48
20	2008	\$20 42	\$10 94	\$19 69	\$19 49	\$19 69
21	2009	\$21 11	\$11 10	\$19 99	\$18 67	\$19 99
22	2010	\$21 62	\$11 26	\$20 27	\$18 75	\$20 27
23	2011	\$21 90	\$11 42	\$20 55	\$18 35	\$20 55
24	2012	\$22 29	\$11 50	\$20 69	\$16 33	\$20 69
25	2013	\$22 82	\$11 70	\$21 06	\$16 47	\$21 06
26	2014	\$23 36	\$11 91	\$21 43	\$16 82	\$21 43
27	2015	\$23 90	\$12 11	\$21 79	\$17 48	\$21 79
28	2016	\$24 49	\$12 31	\$22 16	\$17 62	\$22 16
29	2017	\$25 07	\$12 52	\$22 53	\$17 55	\$22 53
30	2018	\$25 73	\$12 72	\$22 90	\$17 51	\$22 90
31	2019	\$26 43	\$12 92	\$23 26	\$17 44	\$23 26
32	2020	\$27 13	\$13 12	\$23 61	\$16 98	\$23 61

1/ Based on BNSF URCS Phase III Unit Costs including CAPM Cost of Capital for each year 2000 through 2006 and applied to the nine inputs for each time period

2/ Column (3) x 1 80

3/ Table 7

4/ Greater of Column (4) or (5)

5/ Column (2)

VII. Conclusion

In accordance with the *Reconsideration Decision*, AEP Texas has addressed the appropriate course the Board should take with respect to the calculation of the cost of equity for the TNR. As the record demonstrates, the CAPM methodology is superior to the single-stage DCF methodology and the Board should use it in determining the cost of equity for the TNR for all relevant periods. Thereupon, the Board should grant prescriptive relief and reparations as indicated by AEP Texas' MMM calculations

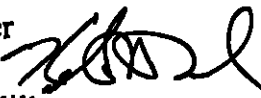
Respectfully submitted,

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Dated August 8, 2008

Attorneys & Practitioners

CERTIFICATE OF SERVICE

I hereby certify that on this 8th day of August 2008, I caused a copy of the foregoing Fourth Opening Supplemental Evidence of Complainant AEP Texas North Company to be served by hand delivery on counsel for BNSF, as follows:

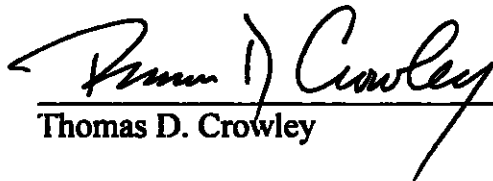
Samuel M. Sipe, Jr
Anthony J. LaRocca
Steptoe & Johnson, L.L.P
1330 Connecticut Avenue, N.W
Washington, D C. 20036-1795



Daniel M. Jaffe

VERIFICATION

I, Thomas D. Crowley, verify under penalty of perjury that I am the same Thomas D Crowley whose Statement of Qualifications appears in Part V of the Narrative portion of the Opening Evidence of Complainant AEP Texas North Company ("AEP Texas") filed in this proceeding on March 1, 2004; that I am responsible along with Daniel L Fapp for the portions of the foregoing Opening Fourth Supplemental Evidence of AEP Texas set forth in Sections IV, V and VI, as well as Table 1; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Thomas D. Crowley

Executed on August 7, 2008

STATEMENT OF QUALIFICATIONS

My name is Daniel L. Fapp. I am 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, VA 22314, and 10445 N. Oracle Road, Suite 151, Tucson, AZ 85737.

I received a Bachelor of Science degree in Business Administration with an option in Marketing (cum laude) from the California State University, Northridge in 1987, and a Master of Business Administration degree from the University of Arizona's Eller School of Management in 1993, specializing in finance and operations management. I am also a member of Beta Gamma Sigma, the national honor society for collegiate schools of business.

I have been employed by L. E. Peabody & Associates, Inc. since December 1997. Prior to joining L. E. Peabody & Associates, Inc., I was employed by BHP Copper Inc. in the role of Transportation Manager - Finance and Administration, and where I also served as an officer of the three BHP Copper Inc. subsidiary railroads, The San Manuel Arizona Railroad, the Magma Arizona Railroad (also known as the BIIP Arizona Railroad) and the BHP Nevada Railroad. I have also held operations management positions with Arizona Lithographers in Tucson, AZ and MCA-Universal Studios in Universal City, CA.

While at BHP Copper Inc., I was responsible for all financial and administrative functions of the company's transportation group. I also directed the BIIP Copper Inc. subsidiary railroads' cost and revenue accounting staff, and managed the San Manuel Arizona Railroad's and BIIP Arizona Railroad's dispatchers and the railroad dispatching functions. I served on the company's Commercial and Transportation Management Team and the company's Railroad Acquisition Team where I was responsible for evaluating the acquisition of new railroads, including developing financial and economic assessment models. While with MCA-Universal Studios, I

STATEMENT OF QUALIFICATIONS

held several operations management positions, including Tour Operations Manager, where my duties included vehicle routing and scheduling, personnel scheduling, forecasting facilities utilization, and designing and performing queuing analyses

As part of my work for L E Peabody & Associates, Inc , I have directed numerous projects and analyses undertaken on behalf of utility companies, short line railroads, bulk shippers, and industry and trade associations Examples of studies which I have participated in organizing and directing include. traffic, operational and cost analyses in connection with the rail movement of coal, metallic ores, pulp and paper products, and other commodities I have also analyzed multiple car movements, unit train operations, divisions of through rail rates and switching operations throughout the United States The nature of these studies enabled me to become familiar with the operating procedures utilized by railroads in the normal course of business

Since 1997, I have participated in the development of cost of service analyses for the movement of coal over the major eastern and western coal-hauling railroads I have conducted on-site studies of switching, detention and line-haul activities relating to the handling of coal I have also participated in and managed several projects assisting short-line railroads. In these engagements, I assisted short-line railroads in their negotiations with connecting Class I carriers, performed railroad property and business evaluations, and worked on rail line abandonment projects

I have been frequently called upon to perform financial analyses and assessments of Class I, Class II and Class III railroad companies In addition, I have developed various financial models exploring alternative methods of transportation contracting and cost assessment,

STATEMENT OF QUALIFICATIONS

developed corporate profitability and cost studies, and evaluated capital expenditure requirements. I have determined the Going Concern Value of privately held freight and passenger railroads, including developing company specific costs of debt and equity for use in discounting future company cash flows. My consulting assignments regularly involve working with and determining various facets of railroad financial issues, including cost of capital determinations. In these assignments, I have calculated railroad capital structures, market values, cost of railroad debt, cost of preferred railroad equity and common railroad equity. I am also well acquainted with and have used the commonly accepted models for determining a firm's cost of equity, including the Discounted Cash Flow Model ("DCF"), Capital Asset Pricing Model ("CAPM"), Farma-French Three Factor Model and Arbitrage Pricing Model.

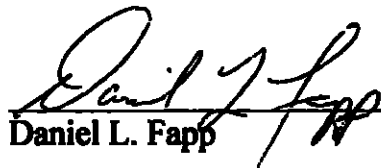
In my tenure with L. E. Peabody & Associates, Inc., I have assisted in the development and presentation of traffic and revenue forecasts, operating expense forecasts, and discounted cash-flow models which were presented in numerous proceedings before the STB. I presented evidence applying the STB's stand-alone cost procedures in Docket Number 42057, *Public Service Company of Colorado d/b/a Xcel Energy v. The Burlington Northern and Santa Fe Railway Company*, and in Docket Number 42071, *Otter Tail Power Company v. BNSF Railway Company*. I have also presented evidence before the STB in Ex Parte No. 661, *Rail Fuel Surcharges*, Ex Parte No. 558 (Sub-No. 10), *Railroad Cost Of Capital – 2006*, Ex Parte No. 664, *Methodology To Be Employed In Determining The Railroad Industry's Cost Of Capital*, Ex Parte No. 664 (Sub-No. 1), *Use Of Multi-Stage Discounted Cash Flow Model In Determining The Railroad Industry's Cost Of Capital*, and Ex Parte No. 558 (Sub-No. 11), *Railroad Cost Of*

STATEMENT OF QUALIFICATIONS

Capital – 2007 In addition, my reports have been used as evidence before the Nevada State Tax Commission

VERIFICATION

I, Daniel L. Fapp, verify under penalty of perjury that I am responsible along with Thomas D Crowley for the portions of the foregoing Opening Fourth Supplemental Evidence of AEP Texas set forth in Sections IV, V and VI, as well as Table 1, that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.


Daniel L. Fapp

Executed on August 7, 2008