

BEFORE THE
SURFACE TRANSPORTATION BOARD
Docket No. EP 664 (Sub No. 2)

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PETITION OF THE WESTERN COAL TRAFFIC LEAGUE TO INSTITUTE A
RULEMAKING PROCEEDING TO ABOLISH THE USE OF THE MULTI-STAGE
DISCOUNTED CASH FLOW MODEL IN DETERMINING THE RAILROAD
INDUSTRY'S COST OF EQUITY CAPITAL

REPLY OF THE ASSOCIATION OF AMERICAN RAILROADS
TO PETITION FOR RECONSIDERATION OF THE
WESTERN COAL TRAFFIC LEAGUE

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Pursuant to 49 C.F.R. § 1115.3(d), the Association of American Railroads ("AAR") hereby replies to the Petition for Reconsideration ("Pet.") filed by the Western Coal Traffic League ("WCTL"). For the reasons stated herein, the Petition should be denied.

PREFACE AND SUMMARY

WCTL has provided no basis for the Board to reconsider its October 31, 2016 Decision ("Decision"), which concluded the Board's third investigation in the past 10 years into how to estimate the illusive cost of equity for the railroad industry. The Board's decision to continue its "hybrid" approach for calculating the cost of equity, and its use of a 1926 base year for calculating the market risk premium ("MRP") in the Capital Asset Pricing Model ("CAPM"), was not the "arbitrary and capricious" action that WCTL alleges. *See* Pet. at 2, 12-13, 15-16. To the contrary, the Board continued to follow the mainstream approach used by other regulatory agencies and indeed repeatedly advocated by members of WCTL before their own state regulators. *See* AAR Reply Comments at 7 & n.12, 22-23 & n.37; Villadsen Opening V.S., App. A. For example, just this summer in rate proceedings before the Missouri Public Service Commission ("MPSC"), two

of WCTL's members argued that "no individual [cost of equity] model is more reliable than all others under all market conditions. Therefore, it is both prudent and appropriate to use multiple methodologies in order to mitigate the effects of assumptions and inputs associated with any single approach."¹

In essence, WCTL is arguing that the Board committed material error because it did not adopt a CAPM-only approach, and a 50-year period for computing the MRP. The Board, however, carefully considered the evidence and arguments of the parties, and decided, in its sound and informed discretion, to continue with its existing approach. That exercise of discretion does not constitute material error. Docket No. AB 290 (Sub-No. 311X), *Norfolk Southern Ry. Co. – Petition For Exemption – In Baltimore City and Baltimore County, MD*, 2012 STB LEXIS 35, at *26 (served Jan. 27, 2012).²

WCTL, plainly disappointed that its decade-long campaign to wear down the Board's patience has not borne fruit, contends that the Board "ignored," "minimized," or "evaded" its evidence. Petition at 2-3, 5-6, 9-13, 17-19, 21.

¹ MPSC File No. ER-2016-0179, Direct Testimony. of Robert B. Hevert on behalf of Union Electric Company (d/b/a Ameren Missouri), filed July 1, 2016, at 16; ("2016 Hevert Ameren test.") MPSC File No. ER-2016-0285, Direct Testimony of Robert B. Hevert on behalf of Kansas City Power & Light Co. ("KCP&L"), filed July 1, 2016, at 16. ("2016 Hevert KCP&L test.").

² WCTL does not argue that the Decision "will be affected materially because of new evidence or changed circumstances," which is the alternative grounds on which a petition for reconsideration can be granted. See 49 U.S.C., § 1115.3(b). Nonetheless, WCTL alleges certain facts without supplying any supporting testimony. See Pet. at 5 & Exh. A (impact of alleged difference of 275 basis points between CAPM and MSDCF); *id.* at 17 n.22 (arguing that "Duff & Phelps's recommendation for a normalized interest rate departs from standard practice"); *id.* at 8-9 n. 9 & Exh. B (excerpts from Morgan Stanley report of cost of capital of rail carriers). These allegations would be improper for the Board to consider, because to do so would constitute material error. See *Brown Transport o. v. McLean Trucking Co.*, 367 I.C.C. 943, 949 (1984) (reversing ALJ's denial of motion to dismiss complaint because complainant only made "mere assertion" that discrimination existed but failed to present any supporting evidence).

WCTL's disagreement with the Decision, however, "does not mean that the Commission failed to consider" its evidence.³ "The Board simply arrived at a result [WCTL] did not like." *AEP Texas North Co. v. STB*, 609 F.3d 432, 439 (D.C. Cir. 2010).

In its petition, WCTL describes the Decision as "defective," "bizarre," "makeweight," "contrived," "facile," "evasive," "irresponsible," "perverse," "lack[ing] any coherence," and an "abdication of the Board's role as guardian of the public interest." Pet. at 5-7, 12, 14, 16-19, 21. WCTL also asserts that the Decision rests on a "faulty grasp of the facts, finance theory, and the operation of its own model" *Id.* at 8.

Rhetoric and hyperbole, however, are not grounds for reconsideration. There is *overwhelming* evidence, including a report by the Staff of the Federal Communications Commission and two economists of the Federal Reserve, that (1) the modern practice in regulatory settings is to use the approaches adopted by the Board to calculate the cost of equity and the MRP, and (2) the MRP calculated by the Board is reasonable. By contrast, WCTL has provided no reliable evidence to the contrary. Therefore, WCTL's Petition should be denied.

I. WCTL'S CONTENTION THAT THE BOARD DID NOT "MEANINGFULLY RESPOND" TO ITS OBJECTIONS IS WRONG, BOTH LEGALLY AND FACTUALLY.

WCTL contends that the Decision is arbitrary and capricious because the Board did not "respond meaningfully" either to its objections to the use of the Multi-Stage Discounted Cash Flow model ("MSDCF") or to its proposed revision

³ See, e.g., *Minisink Residents For Envtl. Pres. & Safety v. FERC*, 762 F.3d 97, 112 (D.C. Cir. 2014); see also *United States v. Black*, 125 F.3d 454, 468 (7th Cir. 1997) ("That the district court disagreed with Davis' emancipation defense does not mean that it failed to consider it").

of the historical period for the calculation of the MRP. *See* Pet. at 2, 12; *see also* Pet. at 3, 13, 21. This argument is baseless and erroneous.

As a preliminary matter, WCTL's argument is internally inconsistent. Although it contends that the Board "ignored" its arguments, WCTL repeatedly argues throughout its Petition that the Board *did* respond to its argument, but that the response was inadequate.⁴ In essence, WCTL's real criticism is directed at *what* the Board said in response to its arguments, not *whether* the Board responded.

In any event, the Board's response to WCTL's arguments was more than adequate. An agency has an obligation to "respond meaningfully" to "objections that on their face seem legitimate." *See Canadian Ass'n of Petroleum Producers v. FERC*, 254 F.3d 289, 299 (D.C. Cir. 2001). However, the Board was only required to "weigh[] competing views, select[] a [methodology] with adequate support in the record, and intelligibly explain[] the reasons for making that choice." *FERC v. Elec. Power Supply Ass'n*, 136 S.Ct. 760, 784 (2016). Like the agency in *Electric Power Supply Ass'n*, the Board "satisfied that standard," as even a cursory review of its decision demonstrates. *Id.* As discussed below, the Board not only described in detail WCTL's arguments regarding the alleged shortcomings of the MSDCF and the Board's method of computing MRP (Pet. at 8-10, 17), but also responded to them at length, and its response was adequately supported in the record (*id.* at 11-14, 17-18).

⁴ *See, e.g.*, Pet. at 3 (Decision "minimized" WCTL's evidence concerning market's reliance on CAPM); *id.* at 4 (Decision "attempts to provide other reasons for retaining the MSDCF," but such reasons "only confirm the inaccuracy and unsuitability of the methodology"); *id.* at 21 (Decision "mischaracterizes what little of that evidence it does consider, and attempts to defend the existing methodology on grounds that lack support and coherence").

II. THE BOARD CORRECTLY FOUND THAT THERE IS NO BASIS IN THE RECORD FOR ABANDONING THE USE OF THE MORNINGSTAR/IBBOTSON MSDCF MODEL.

After carefully examining and analyzing the parties' arguments and evidence, the Board concluded that the record, yet again, demonstrated "that while there are a variety of methodologies available to estimate the cost of equity, no currently available model is more correct than any other." Decision at 6-15, 20. The Board further found that both the MSDCF and CAPM "have their own strengths and weaknesses, and both take different paths to estimate the same illusive figure." *Id.* Following the mainstream approach used by other regulatory agencies, the Board reasonably chose to continue to use both models to estimate the cost of equity, thereby "tak[ing] advantage of each model's strengths while simultaneously minimizing their weaknesses." *Id.* at 15; *see also id.* at 20; Villadsen Opening V.S. at 10-21. This approach followed the sage advice of Professor Myers: "Use more than one model when you can. Because estimating the opportunity cost of capital is difficult, only a fool throws away useful information."⁵

The Board's decision to use multiple models is supported by a mountain of evidence in the record. As the AAR demonstrated, many state regulators use multiple models, including single-stage and multi-stage DCF models. AAR Reply Comments at 6-7 & n.12; Villadsen Opening V.S., App. A; Villadsen Reply V.S. at 40. In the words of WCTL's own member, Minnesota Power, "[a]uthoritative financial literature strongly supports the use of multiple methods."⁶ A

⁵ AAR Opening at 3 (citing Stewart C. Myers, "On the Use of Modern Portfolio Theory in Public Utility Rate Cases: Comment," *Financial Management*, Autumn 1978, at 67). *See also* Villadsen Opening V.S. at 4-5, 9-10.

⁶ AAR Reply Comments at 32 (citing Direct Testimony of Roger A. Morin on behalf of Minnesota Power in Minnesota PUC Docket No. E-015/GR-08-415, *In the Matter of the*

report issued in 2013 by the Wireline Competition Bureau Staff of the Federal Communications Commission ("FCC")⁷ explains why using multiple models is preferred:

As the cost of capital reflects the uncertain expectations of investors, there is the potential for introducing significant errors into the estimates, and no single methodology can be counted on exclusively to provide a precise estimate of the cost of equity. Each methodology has conceptual shortcomings, requires the use of informed judgment, and involves measurement error.

The record made it clear that various federal regulatory agencies also use a single-stage or multi-stage DCF model in conjunction with other models. For example, the FCC Staff Report used both the DCF and the CAPM "because both models have different limitations." *Id.* at 7146, 7148.⁸ Similarly, FERC has used a DCF model in its rate determinations for the natural gas, electric, and oil pipeline industries, while using other models as a "check."⁹ FERC has found that other models, including CAPM, produced a median cost of equity *higher* than the

Application of ALLETE, Inc., d/b/a Minnesota Power, For Authority To Increase Rates for Electric Utility Service in Minnesota, dated May 2, 2008, at 22 (emphasis added) ("Minnesota Power Test.")). See also Villadsen Opening Test. at 4-8.

⁷ AAR Reply Comments at 3 (citing *In the Matter of Connect America Fund*, Wireline Competition Staff Report, 2013 WL 2146005, 28 Fcc Rcd. 7123, 7147 (2013) ("FCC Staff Report"), *application for review denied*, 29 FCC Rcd. 14092 (2014)).

⁸ The FCC Report was prepared to assist the FCC in prescribing a new rate of return for incumbent local exchange carriers on specified investment in plant that is used and useful in the efficient provision of telecommunications services.

⁹ AAR Reply Comments at 6 (citing *Coakley v. Bangor Hydro-Electric Co.*, Opinion No. 531, 147 FERC ¶ 61,234, at PP 8, 13-42 (2014); *Distrigas of Mass. Corp.*, 41 FERC ¶ 61,205, at 61,550 (1987) (stating that DCF "is but one analytical tool," and weight to be given each methodology rests on accuracy and sensibleness of judgmental inputs and factors used by witnesses)).

midpoint of the DCF analysis. *Coakley v. Bangor Hydro-Electric Co.*, 147 FERC ¶ 61,234, at PP 145-147.

WTCL's own members caution that it is dangerous to rely on only one generic methodology to estimate equity costs. For example, in 2012 on behalf of KCP&L, expert witness Samuel Hadaway stated that he did not use CAPM in his cost of equity estimates because it would understate the cost of equity's true value. Specifically, he states that "the government's continuing intervention in the debt markets has created artificially low long-term interest rates and the recent sharp decline in interest rates has created risk premium ROE estimates that are not consistent with observed equity market turmoil."¹⁰ KCP&L later criticized the CAPM model as producing unreasonably low results:

The risk-free rate, R_f , is understated because, due to governmental credit market policies and investors' increased risk aversion, the U.S. Treasury rates used for R_f are artificially low. The second input, the expected market risk premium [$E(R_m) - R_f$], when based on historical data, may also be understated because such data cannot reflect the heightened investor risk aversion that has resulted from the financial crisis.¹¹

Entergy, another of WCTL's members, similarly asserted that "in the equity risk premium models, like the CAPM, artificially lower interest rates directly reduce COE estimates."¹²

¹⁰ AAR Reply Comments at 11 (citing Direct Testimony of Samuel Hadaway on behalf of KCP&L Greater Missouri Operations Company, in Missouri PSC Case No. ER-2012-0175, at 5, dated February 27, 2012).

¹¹ *Id.*

¹² Direct Testimony of Samuel Hadaway on behalf of Entergy before the Council of the City of New Orleans, March 2013 (Docket No. UD-13-01), at 16.

WCTL's own members have therefore endorsed using multiple models, and use of a DCF model specifically. *See* AAR Reply Comments at 8-10 (quoting testimony by witnesses for Wisconsin Public Service Corporation, CLECO Corporation, Ameren, Minnesota Power, and Kansas City Power & Light in state regulatory proceedings); Villadsen Opening V.S. at 8 & App. A. The following are examples of statements made by WCTL's own members *this year*, cautioning against the dangers of relying on a single model to estimate the cost of equity:

- *Ameren and Kansas City Power & Light*: In testimony filed on July 1, 2016, in two Missouri PSC rate proceedings on behalf of Ameren and KCP&L, their expert witness, Robert Hevert, cautioned that "[P]ractitioners and academics recognize that financial models are simply tools to be used in the ROE estimation process, and that strict adherence to any single approach, or to the specific results of any single approach, can lead to flawed or misleading conclusions." 2016 Hevert Ameren Test. at 10; 2016 Hevert KP&L Test. at 11.
- *Minnesota Power*: In testimony filed in November 2016 on behalf of Minnesota Power in a Minnesota PUC rate proceeding, Mr. Hevert testified that "in light of recent market conditions, and given the fact that equity analysts and investors tend to use multiple methodologies in developing their return requirements, it is extremely important to consider the results of several analytical approaches in determining the Company's ROE."¹³

Despite the flatly contradictory statements of its own members, WCTL continues to insist that "the recognized consensus in the financial and investment community is to rely solely on the CAPM," and that Dr. Villadsen, the AAR's expert witness, "fully agreed." Pet. at 4. WCTL's choice of Dr. Villadsen's testimony, however, is highly selective and misleading. Although Dr. Villadsen

¹³ Direct Testimony of Robert Hevert on behalf of MPL&L in Minnesota PUC Docket No. E015/GR-16-664, filed Nov. 2, 2016, at 4.

stated that she did not disagree “that if you ask businesses what model do you estimate, they will say the [CAPM], by far, most frequently,” she proceeded to state that businesses do not use a “pure” CAPM and do not actually use the CAPM to calculate the cost of equity. Instead, they estimate the cost of equity by adjusting the CAPM to reflect their business environment:

I work with a lot [of] businesses, and what they do is *they make adjustments to the capital asset pricing model*, especially during the most recent period of time when they don’t think it actually fits what they call that hurdle [rate], at which [rate] would they invest. If they come up with a number that's too low, *they will subjectively adjust it to fit something they need*. ... [V]ery few companies go out and estimate the discounted cash flow, or any version of that, to make specific investment decisions. ... [M]ost companies estimate the capital asset pricing model and then most companies look to other factors, whatever that might be.¹⁴

7/23/15 Tr. at 129-130 (emphasis added).

In addition to ignoring the context of Dr. Villadsen’s statements, WCTL bases its attack on the MSDCF on the assumption that the MSDCF’s alleged flaws overstate the cost of equity and therefore account for the difference in the cost of equity computed by the MSDCF and CAPM. Pet. at 3, 8, 10. That assumption, however, is highly questionable. The difference in the cost of equity from the two models may well be due to flaws in CAPM that result in an *understated* cost of equity. That is because, as described *supra*, CAPM’s key weakness is its sensitivity to interest rates.¹⁵ AAR showed in its opening comments that the cost

¹⁴ Although the hearing transcript describes Dr. Villadsen as using the word “weight” twice in this testimony, that was a transcription error.

¹⁵ See Villadsen Opening V.S. at 21-25; Federal Reserve System, *Federal Reserve Bank Service Private Sector Adjustment Factor*, 70 Fed. Reg. 29512, 29516 (2005) (“Table 2 highlights the CAPM’s sensitivity to interest rates ... As rates fell from 2001 to 2005, the

of equity as estimated by the CAPM has been downward biased due to extremely low interest rates. Villadsen Opening V.S. at 21-25.¹⁶

Thus, the evidence fully supports the Board's finding that CAPM could be producing low figures in this environment of low interest rates. *See* Decision at 12. WCTL nonetheless disagrees, claiming that this finding is wrong both factually and conceptually, even going so far as to make the remarkable claim that the Board's explanation "rests on a faulty grasp of the facts, finance theory, and the operations of its own model" Pet. at 7-8. The Board, however, is in good company. Professor Myers, Dr. Villadsen, WCTL's members, and finance experts all share this "faulty grasp" of the facts and finance theory and caution against undue reliance on CAPM in an environment of extremely low current interest rates, which yield low cost of equity estimates when combined with a "normal" equity risk premium.¹⁷

CAPM produced an ROE that is much lower than the ROEs produced by the CAE or DCF models").

¹⁶ As Professor Myers has explained: "Costs of equity derived from multi-stage dividend discount models are particularly useful now. With extremely low current interest rates, routine applications of the CAPM, which use "normal" equity risk premiums, can now yield cost of equity estimates that seem unreasonably low." *See* Villadsen Opening V.S. at 22 (quoting Myers AER Report at 8)

¹⁷ Apparently recognizing the lack of merit in its attacks on the use of the MSDCF, WCTL argues (in a footnote) that if the Board uses MSDCF values, it should "use a less contrived model, such as that utilized by Brattle," and adopt a "trailing adjustment to correct for the excessive values of the MSDCF relative to the CAPM." WCTL's argument is too little and too late, because WCTL did not raise it until the filing of its petition for reconsideration. The D.C. Circuit has ruled that in such circumstances, the argument is forfeited, because it "was not raised before the agency at the time appropriate under its practice." *BNSF Ry. Co. v. STB*, 453 F.3d 473, 479 (D.C. Cir. 2006) ("*Xcel*"). That time would have been no later than the Board's Decision, as "the criteria for granting reconsideration are limited by statute." *Id.* (citing 49 U.S.C. § 722). The Board has similarly held that it "generally does not consider new issues raised for the first time on reconsideration where those issues could have and should have been presented in the earlier stages of the proceeding." *Tex. Mun. Power Agency v. BNSF Ry.*, Docket No. 42056, 2004 WL 2619767, at *3 (served Sept. 27, 2004). As the D.C. Circuit stated in *Xcel* ,

In any event, WCTL's allegation of a "substantial gap" between the results of CAPM and MSDCF is without merit. As the Board found, the "gap" has narrowed in the last two years and, because different models produce different estimates based on different assumptions, it would not be surprising if, over time, the MSDCF produces lower outcomes for some years. Decision at 12 & n.13. That conclusion was supported by evidence in the record. *See* 7/23/15 Tr. at 95-96, 360.¹⁸

Finally, the Board was correct in rejecting WCTL's argument that cash flows in the MSDCF are overstated because of "significant share buybacks." Pet. at 12-13. The STB correctly found "a lack of evidence in the record supporting the position that the analyst's growth rates are distorted by stock buybacks." Decision at 14. The Board's analysis of this issue is neither "facile" nor "evasive" as claimed by WCTL. Rather, the Board's reasoning is clearly discernible, and its finding is overwhelmingly supported by the record in this proceeding.

"Assuming [that WCTL's] relegation of the argument to a footnote was not itself fatal, ... the timing certainly was." 453 F.3d 479.

¹⁸ Contrary to WCTL's assertion, the Board's reliance on a chart in the *AEP Texas* proceeding was not "bizarre" (Pet. at 6), because the D.C. Circuit's decision did not bar the use of the chart for all purposes. In *AEP Texas*, the Board relied on the chart to support its conclusion that the DCF calculations were reasonable, because the results fell within the range produced by other models. *See AEP Texas North Co. v. STB*, 609 F.3d 432, 437 (D.C. Cir. 2010). The court found the Board's reliance on the chart to be arbitrary and capricious because the Board was relying on models and estimates not in the record and had not explained why those methods were chosen, thereby foreclosing any opportunity for AEP to challenge the estimates. Moreover, the Board's analysis in that case consisted of nothing more than a "cursory glance at the graph." *Id.* at 442-443. By contrast, the Decision cited the chart only to support its conclusion that the gap between the CAPM and MSDCF did not show that the latter was inherently unreliable. Furthermore, that conclusion was supported by the record, and WCTL had the opportunity to challenge the conclusions reflected in the chart, which was submitted as part of the record at the hearing by the AAR to support the uncontroversial proposition that "All financial techniques used to estimate the cost of equity are inherently imprecise and produce a range of estimates." Tr. at 69.

The AAR submitted unchallenged evidence demonstrating that – if anything – modifying the MSDCF model to account for stock repurchases (which pulls distributions to shareholders forward in time) would increase (not decrease) the cost of equity estimate. Villadsen Opening V.S. at 14-18. In essence, WCTL’s challenge boils down to an allegation that the cash flow forecasts in the MSDCF model are too high. This is demonstrably false. Dr. Villadsen showed that the cash flow forecasts in the Board’s MSDCF model were conservative, falling well below actual available cash flows, and that the WCTL’s proposed one-sided growth rate adjustments based on actual shares repurchased ignored the value to investors of the higher actual cash flows that were distributed via those repurchases.

As Dr. Villadsen explained, “Because the expected cash flow is discounted, cash flow that occurs early contributes more to the current stock price than cash flow that occurs later. This is important because the cash that accrues to shareholders from share buybacks occurs immediately rather than later and therefore makes a substantial contribution to the stock price and hence the cost of equity (*i.e.*, cash flow to shareholders is pulled forward in time).” *Id.* at 17. This evidence refuted WCTL’s unsupported claims that the cash flow forecasts and resulting cost of equity estimates were systematically optimistic due to the presence of stock repurchases. *See* Villadsen Hearing Exhibits; Tr. at 103-105; and Villadsen Opening V.S. at 17-18. WCTL offered no meaningful rejoinder to these undisputed facts. *See* WCTL Supp. Comments at 2-3 (filed Aug. 6, 2015). In sum, there was ample evidence in this record to support the STB’s finding.

III. THE BOARD'S DECISION TO REJECT WCTL'S PROPOSAL FOR A 50-YEAR MRP WAS REASONABLE.

WCTL also renews its argument that the Board's use of all available data going back to 1926 to calculate the MRP in CAPM does not "reflect current investor expectations" and overstates the MRP. Decision at 18. WCTL argues, yet again, that the Board should instead use data going back only 50 years, and that the MRP should not exceed the "current norm" of 5.0 percent. *Id.* at 14, 16, 18-19. The Board, however, was correct in again rejecting WCTL's arguments.

The Board found that the record "does not show that the use of a 1926 base year is any less precise than using a shorter period of time for calculating MRP." Decision at 17-18. Noting that it had found in Ex Parte No. 664 that developing the MRP from a 1926 base year "is a standard practice in the industry," the Board found that "[t]he evidence in this record does not demonstrate that another MRP methodology has supplanted the use of a 1926 base year as the norm within the industry." *Id.* WCTL's challenge to these determinations is baseless.

First, the Board's conclusion that "there is ... no single correct method for determining MRP" (Decision at 17) finds abundant support in the academic and economic literature. Villadsen Reply V.S. at 12-13.¹⁹ The survey submitted by WCTL makes the same point:

¹⁹ See AAR Opening Comments at 18-19 (citing P. Fernandez, *The Equity Premium in 150 Textbooks*, Working Paper WP-829 (IESE Business School, University of Nevada, October 2009), at 9 ("There is no generally accepted equity premium point estimate ... nor is there a common method to estimate it, even for the" historical equity premium); M. Zenner, S. Hill, J. Clark, & N. Mago, *The Most Important Number in Finance: The Quest for the Market Risk Premium*, at 2 (Report, J.P. Morgan Capital Structure Advisory & Solutions, May 2008) ("No single method to estimate the MRP is used universally ... [E]ach have strengths and weaknesses. They also generate a wide range of results..."); F. Duarte & C. Rosa, *Are Stocks Cheap? A Review of the Evidence*, Liberty Street Economics, May 08, 2013, <http://libertystreeteconomics.newyorkfed.org/2013/05/are-stocks-cheap-a-review-of-the-evidence.html> (analysis of "twenty-nine of the most popular and

The choice of the appropriate level of the market risk premium to use is, at present, the subject of considerable discussion and controversy. There is significant variation in the premium used by organizations, and that variation is not surprising considering the lack of agreement on how market risk is calculated.²⁰

Second, the record supports the Board's finding that the use of a 1926 base year is "the norm within the industry." Decision at 18. As Dr. Villadsen testified, "It is also common among regulatory cost of capital experts in the U.S. to base the MRP on the historical average MRP back to 1926; often using the Morningstar/Ibbotson data." Villadsen Reply V.S. at 23.²¹ Professor Morin emphasizes in his textbook that "to avoid data mining, a reasonable solution is to use the entire period for which reliable data is available."²² This approach is echoed by many practitioners who estimate the cost of equity for regulated entities.²³ Dr. Villadsen's position that "the use [of] historical data back to 1926

widely used models to compute the equity risk premium for the last fifty years"); F. Duarte & C. Rosa, *The Equity Risk Premium: A Consensus of Models*, at 1). (2015)("Duarte/Rosa"), located at https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr714.pdf.

²⁰ 2013 AFP: *Estimating and Applying Cost of Capital: Report of Survey Results*, at 11 (Exhibit 4 to WCTL Opening Comments).

²¹ The paper cited by WCTL and co-authored by Dr. Villadsen does not support WCTL's assertion that "History may help to identify a range of values that is reasonable or sustainable but current values ultimately prevail." Pet. at 15 & n.19. citing Harris, Villadsen, & Lo Passo. The quotation by WCTL emphasized that the MRP will be based on historical data, and cautioned that was important to check forecasted MRPs (which are higher). See Harris, Villadsen, and Lo Passo, *Calculating the Equity Risk Premium & the Risk-Free Rate* (Brattle Group, Nov. 26, 202), at 15. Moreover, the paper stated that "we do not recommend the use of survey data in estimating the ERP" – like the survey data that WCTL presents here. *Id.* at 33; Pet. at 14, 16-18.

²² AAR Opening Comments at 22 (citing Roger A. Morin, "New Regulatory Finance," Public Utilities Report, Inc., 2006, p. 156).

²³ See, e.g., Direct Testimony of Roger A. Morin on behalf of Minnesota Power in Minnesota PUC Docket No. E-015/GR-08-415, dated May 2, 2008, at 40 (Minnesota Power Test.); Direct Testimony of James H. Vander Weide on behalf of MidAmerican

continues to be the norm in many settings” (Villadsen Reply V.S. at 24) is confirmed by the FCC Staff Report finding that “[i]t is common to rely on as long a time series as possible when calculating the average historical market premium.” FCC Staff Report at 7152. As Giacchino and Lesser state in their treatise on the principles of utility corporate finance, “[S]ince history tends to repeat itself, for good or ill, arbitrary exclusions of certain historic years ‘because they can never occur again’ strikes us as either naïve, or an exercise in wishful thinking.”²⁴

Third, the 6.90 percent estimate currently used by the Board (as determined in Ex Parte No. 558 (Sub-No. 19)) based on historical returns from 1926 is entirely reasonable and supported by substantial evidence. *See* Decision at 17. As the AAR observed, Duarte and Rosa (economists at the Federal Reserve Bank of New York) found in a recent study that the historical mean is simple to calculate and “quite difficult to improve upon when considering out-of-sample performance measures.” Duarte/Rosa, *supra*, at 5. This sentiment is echoed by Professors Ross, Westerfield and Jaffe, who “are comfortable with an estimate based on the historical U.S. equity risk premium”²⁵ Moreover, in

Energy Company in Illinois C.C. Case No. 14-0066, *Proposed General Increase in Electric Rates*, June 25, 2014 (“Vander Weide MidAmerican Test.”), at 36-37. Many of these experts also relied on a forward-looking MRP. Direct Testimony of Paul R. Moul on behalf of CLECO Power LLC in Louisiana PSC Docket No. U-30689, Vol. 2, *Application of CLECO Power LLC*, dated July 14, 2008, (“Moul CLECO Test.”), at 57-58. *See also* Testimony of James H. Vander Weide on behalf of MidAmerican Energy Co. in Iowa State Utilities Board Docket No. RPU-2016-001, at 37 (using average returns from 1926 to calculate historical MRP); 2016 Hevert KCP&L Test. at 36 (verifying reasonableness of “ex-ante” MRP by considering range of MRPs between 1926 and 2015); *see generally* AAR Opening Comments at 23-24.

²⁴ *See* Villadsen Reply V.S. at 22-23 (quoting Leonardo R. Giacchino and Jonathan A. Lesser, “*Principles of Utility Corporate Finance*,” Public Utilities Report, Inc., 2011, p. 236).

²⁵ AAR Opening Comments at 21 (citing Stephen A. Ross, Randolph W. Westerfield, and Jeffrey F. Jaffe, *Corporate Finance*, (10th ed. 2013) p. 326). Although WCTL asserts that

proceedings before their state commissions, several of WCTL's members have advocated a MRP that equals or exceeds not only the 5% proposed by WCTL, but also the Board-determined figure of 6.90%. AAR Reply Comments at 23-24 (Table 2). For example, in testimony filed in July 2016, expert witness Robert Hevert performed a CAPM analysis for Ameren, in which he used a DCF-derived *ex-ante* MRP using growth rates from Value Line and Bloomberg. This yielded market risk premiums ranging from 9.11% to 11.63%. 2016 Hevert Ameren Test. at 26-62.²⁶

Fourth, the Board was eminently correct in finding that WCTL has still offered no basis for its proposed 50-year measurement period. *See* Decision at 18. As the Board stated, "while WCTL proposes a 50-year period, it provides no valid justification for why that period is better than 40 years or 60 years." *Id.* Although WCTL argues that the 50-year period better reflects "current conditions" and the current market than the period beginning in 1926, its position is unsupported by any reliable empirical evidence. Pet. at 16-17, 20; WCTL Opening Comments at 32-35; Levine V.S. at 24. For example, two of the three "surveys" cited by WCTL found an average MRP of 5.7 percent in the

Duff & Phelps support an MRP that does not exceed 5 percent, Duff & Phelps currently recommend an MRP of 5.5 percent, with a normalized risk-free rate of 4 percent. Duff & Phelps, *2016 Valuation Handbook*, at 3-41.

²⁶ WCTL contends that the Board's reliance on the positions taken by its members in state regulatory proceedings "ignores WCTL's explanations regarding how utilities differ from railroads and how methods that may be appropriate for unregulated or lightly regulated firms may still be appropriate for firms subject to pervasive rate-of-return regulation." Pet. at 19 n.25. The Board, however, had no need to reply, because WCTL's explanation consisted of bare allegations without supporting evidence. *See* July 23, 2015 Tr. at 18-21; WCTL Supplemental Comments (Aug. 15, 2015) at 13-14. WCTL has not even attempted to explain why the methods used by its members to calculate MRP and COE in states with "pervasive" rate-of-return regulation are inappropriate for use in Board proceedings, and vice versa.

United States – which is higher than the 5 percent cap proposed by WCTL. Decision at 17-18. Moreover, WCTL failed to describe the methodology used to compute the figures in the surveys – a fact that WCTL does not deny but simply characterizes as “makeweight and contrived.” *Id.* at 18; Pet. at 14. WCTL also does not dispute the AAR’s “compelling evidence” that the Board’s historic average was within the ranges of WCTL’s “surveys,” even when a period from 1947 is used. *See* Decision at 18.

In sum, the evidence demonstrates that there are at least 20 different models to calculate MRP, each producing a different result. Reputable sources such as the Duarte & Ross paper confirm that the MRP is at a historic high. And WCTL’s own members take positions that unequivocally reject the low MRP advocated here by WCTL. Given this record, there was ample basis for the Board to reject WCTL’s outcome-oriented approach to estimating the MRP.

CONCLUSION

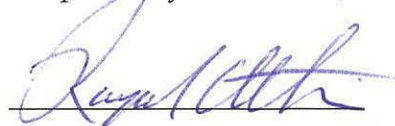
The Board’s Decision marks the third time in 10 years that the Board has examined its cost-of-capital methodology, with WCTL urging the Board each time to adopt a methodology that produce a lower cost of equity more to its liking. Decision at 2, 20. WCTL has also attempted to challenge the methodology in numerous annual cost-of-capital determination proceedings (including the 2015 determination this year), despite the Board’s admonition against raising such a challenge within the annual Ex Parte No. 558 sub-numbered proceeding.²⁷ Despite ample opportunity to present evidence in the Ex Parte No. 664 proceedings, however, WCTL has not made the “compelling showing” that the

²⁷ *See* Decision at 3-4, 6 n.9; Ex Parte No. 558 (Sub-No. 19), *Railroad Cost of Capital – 2015*, Decision served Aug. 3, 2016, at 2-3 & n.4, 9-10.

Board's hybrid methodology "is flawed" that it must make before the Board will change its methodology.²⁸ Quite simply, enough is enough.

WCTL's petition for reconsideration should be denied.

Respectfully submitted,



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²⁸ "2007 XP 558 (Sub-No. 5) Decision at 2; Ex Parte No. 558 (Sub-No. 5), Decision served Sept. 15, 2006, at 7.