

BEFORE THE
SURFACE TRANSPORTATION BOARD

TOTAL PETROCHEMICALS &
REFINING USA, INC.

Complainant,

v.

CSX TRANSPORTATION, INC.

Defendant.

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Docket No. NOR 42121

FINAL BRIEF OF
TOTAL PETROCHEMICALS & REFINING USA, INC.

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ACRONYMS

This table defines the acronyms used in this Brief.

ATC	Average Total Cost
BN	Burlington Northern Railroad
BNSF	BNSF Railway Company
CAGR	Compound Annual Growth Rate
CN	Canadian National Railway
CP	Canadian Pacific Railroad
CSXT	CSX Transportation, Inc.
CTC	Central Traffic Control
DCF	Discounted Cash Flow
G&A	General and Administrative
KCS	Kansas City Southern Railway Company
MMM	Maximum Markup Methodology
MOW	Maintenance of Way
NS	Norfolk Southern Railway Company
PAF	Productivity Adjustment Factor
PTC	Positive Train Control
RCAF	Rail Cost Adjustment Factor
RSIA	Rail Safety Improvement Act of 2008
RTC	Rail Traffic Controller Model
SAC	Stand-Alone Cost
SARR	Stand-Alone Railroad
STB	Surface Transportation Board
T&E	Train and Engine

TPI	Total Petrochemicals & Refining USA, Inc.
TPIRR	TPI Stand-Alone Railroad
UP	Union Pacific Railroad

CASE GLOSSARY

This table defines the abbreviated case names found in this Brief.

<i>AEP Texas</i>	<i>AEP Tex. N. Co. v. BNSF Ry.</i> , STB Docket No. 41191 (Sub-No. 1), slip op. (served Sept. 10, 2007).
<i>AEPCO</i>	<i>Ariz. Elec. Power Coop. v. BNSF Ry.</i> , STB Docket No. NOR 2113, slip op. (served Nov. 22, 2011).
<i>Coal Rate Guidelines</i>	<i>Coal Rate Guidelines, Nationwide</i> , 1 I.C.C. 2d 520 (1985).
<i>Coal Trading</i>	<i>Coal Trading Corp. v. Baltimore & Ohio R.R.</i> , 6 I.C.C.2d 361, 413 (1990).
<i>CP&L</i>	<i>Carolina Power & Light Co. v. Norfolk S. Ry.</i> , 7 S.T.B. 235 (2003).
<i>Duke/CSXT</i>	<i>Duke Energy Corp. v. CSX Transp. Inc.</i> , 7 S.T.B. 402 (2004).
<i>Duke/NS</i>	<i>Duke Energy Corp. v. Norfolk S. Ry.</i> , 7 S.T.B. 89 (2003).
<i>DuPont</i>	<i>E.I. du Pont de Nemours and Company v. Norfolk Southern Ry. Co.</i> , Docket No. NOR 42125, slip op. (served March 24, 2014).
<i>FMC</i>	<i>FMC Wyo. Corp. v. Union Pac. R.R.</i> , 4 S.T.B. 699 (2000).
<i>Major Issues</i>	<i>Major Issues in Rail Rate Cases</i> , STB Ex Parte No. 657 (Sub-No. 1), slip op. (Oct. 30, 2006).
<i>McCarty Farms</i>	<i>McCarty Farms, Inc. v. Burlington N., Inc.</i> , 2 S.T.B. 460 (1997).
<i>Nevada Power II</i>	<i>Bituminous Coal – Hiawatha, Utah to Moapa, Nevada</i> , 10 I.C.C.2d 259 (1994).
<i>Otter Tail</i>	<i>Otter Tail Power Co. v. BNSF Ry.</i> , STB Docket No. 42071, slip op. (served Jan. 27, 2006).
<i>PSCo/Xcel I</i>	<i>Pub. Serv. Co. of Colo. v. Burlington N. & Santa Fe Ry.</i> , 7 S.T.B. 589 (2004).
<i>PSCo/Xcel II</i>	<i>Pub. Serv. Co. of Colo. v. Burlington N. & Santa Fe Ry.</i> , STB Docket No. 42057, slip op. (served Jan 19, 2005).
<i>SunBelt</i>	<i>SunBelt Chlor Alkali Partnership v. Norfolk Southern Ry. Co.</i> , Docket No. NOR 42130, slip op. (served June 20, 2014).
<i>TMPA</i>	<i>Tex. Mun. Power Agency v. Burlington N. & Santa Fe Ry.</i> , 6 S.T.B. 573 (2003).

West Texas *W. Tex. Utils. Co. v. Burlington N. R.R.*, 1 S.T.B 638 (1996).

Western Fuels I *W. Fuels Ass'n v. BNSF Ry.*, STB Docket No. 42088, slip op. (served Sept. 10, 2007).

Wisconsin P&L *Wis. Power & Light Co. v. Union Pac. R.R. Co.*, 5 S.T.B. 955 (2001).

I. INTRODUCTION AND SUMMARY OF ARGUMENT

Pursuant to the procedural schedule served by the Surface Transportation Board (“Board” or “STB”) in this docket on September 15, 2015, Complainant, Total Petrochemicals & Refining USA, Inc. (“TPI”), hereby submits this Final Brief in support of its Complaint, as amended, against Defendant, CSX Transportation, Inc. (“CSXT”).¹ As summarized herein, and detailed in TPI’s Opening, Rebuttal, and Supplemental Evidence, all of the challenged rates exceed a maximum reasonable level under the Stand-Alone Cost (“SAC”) constraint of rate reasonableness. Therefore, TPI is entitled to a prescription of reasonable rates, under 49 U.S.C. § 10704, and an award of reparations (including fully compensatory interest), pursuant to 49 U.S.C. § 11704, for amounts charged by CSXT since July 1, 2010 in excess of the lawful maximum rates for each of the 88 case lanes. TPI has organized this Brief in seven parts, including this introduction and summary in Part I.

Part II addresses the core dispute in this case over the operating plan for the stand-alone railroad, which is called the TPI Railroad (“TPIRR”). Subpart A explains that TPI’s operating plan is realistic, feasible, and supported because it includes all of the facilities that are essential to provide complete service to the TPIRR’s traffic group. Subpart B challenges CSXT’s creation of an entirely new operating plan, instead of correcting alleged flaws in TPI’s plan, as a violation of Board precedent. In addition, CSXT has not demonstrated that its MultiRail operating plan is feasible by modeling it in the RTC simulation, despite having two opportunities to do so. Subpart C explains how the Board can overcome the disconnects created by CSXT’s creation of a new operating plan that it has not shown to be feasible.

¹ In a decision served in this docket on Sept. 26, 2013, the Board imposed a 60-page limit, including exhibits, upon the length of Final Briefs.

Part III challenges CSXT's contention that internal (so-called "leapfrog") cross-over traffic is "a radical expansion" of the cross-over traffic device that should be prohibited. TPI demonstrates that internal cross-over traffic is the mirror image of the accepted form of traditional overhead cross-over traffic, with the only difference being that the residual incumbent, instead of the SARR, is the bridge carrier. TPI also demonstrates that internal cross-over traffic is consistent with SAC principles.

Part IV addresses the differences between the parties' evidence on traffic volumes and revenues. With respect to traffic volumes, TPI rejects CSXT's exclusion of certain high-priority intermodal traffic, CSXT's determination of coal forecast volumes, and CSXT's proposed alternative to TPI's compound annual growth rate ("CAGR") for non-coal forecast volumes. With respect to revenue, TPI rejects CSXT's alternative for resolving deficiencies in its own data which should have been addressed during discovery, CSXT's assumption that legacy contracts will be renewed with the same fuel surcharges rather than CSXT's tariff fuel surcharge program, and CSXT's proposed alternatives to the Average Total Cost ("ATC") methodology for internal cross-over traffic.

Part V addresses differences over operating expenses that are attributable to factors other than the parties' dueling operating plans. First, CSXT makes inappropriate adjustments to the lease rates, yard dwell times, and peaking factors used to determine freight rail car costs. Second, CSXT overstates the TPIRR's train & engine personnel by limiting road crews to 251 shift starts per year, determining the crew rebalancing percent based upon the locomotive rebalancing percent, and basing the recrew rate upon CSXT's actual experience instead of the RTC model. Third, CSXT's top-down approach produces General and Administrative ("G&A") costs that are higher than every other Class I railroad, whereas TPI's bottom-up approach produces costs that

are comparable to the rest of the industry. Fourth, CSXT's development of maintenance-of-way ("MOW") costs violates SAC principles by imposing costs associated with older infrastructure instead of the brand new infrastructure investment made by the TPIRR and by requiring the TPIRR's MOW employees to cover far fewer miles than their real-world CSXT counterparts. Finally, CSXT employs a flawed approach to calculating ad-valorem taxes.

In Part VI, TPI addresses the more significant road-property-investment disputes. These include reliance upon the Trestle Hollow Project to determine common earthwork unit costs; land-valuation errors; inflated roadbed-preparation costs for waste excavation, swell, and slag; the cost of ballast and sub-ballast; bridge expenses; and Positive Train Control ("PTC"). TPI also shows that CSXT's RTC model overbuilds the TPIRR to inflate unit quantities.

Part VII addresses five disputes over how the Board should perform the Discounted Cash Flow ("DCF") and Maximum Markup Methodology ("MMM") analyses: equity flotation costs; the SARR's debt structure; the terminal value correction; bonus depreciation; and the indexing of SARR operating expenses.

II. TPI HAS DEVELOPED THE ONLY FEASIBLE OPERATING PLAN FOR THE TPIRR THAT IS CONSISTENT WITH BOARD PRECEDENT.

The operating plan is the heart of the SAC analysis, because it is "a crucial factor in determining both the total investment that would be needed and the annual operating costs that would be incurred by the SARR."² For the third time in as many SAC cases involving carload operations, the parties have submitted very different operating plans. TPI has developed its operating plan based upon historical car and train movements and car-blocking plans, consistent

² *Duke/NS*, 7 S.T.B. at 99. *See also, DuPont*, slip op. at 36 ("How a SARR would operate influences both its configuration and annual operating expenses."), *citing AEP Texas*, slip op. at 16.

with past SAC presentations, whereas CSXT has developed a brand new—albeit incomplete—operating plan based upon the MultiRail software. The Board ordinarily “require[s] the defendant in a SAC case to make any necessary corrections to the complainant’s opening evidence rather than submitting something entirely new on reply, to avoid having operating plans so different as to impede comparison.”³ CSXT has flouted that precedent in its reply evidence, thereby creating the very problems this rule is designed to avoid.

Despite CSXT’s hyperbole-laden critique of TPI’s operating plan, most of those criticisms are inaccurate and/or have been replicated by CSXT in its own operating plan. Although TPI rejects the vast majority of CSXT’s criticisms, it conservatively has accepted some claims—for which CSXT provided scarce support—and modified its operating plan accordingly in rebuttal and supplemental evidence to erase any doubt regarding its feasibility. When the Board is presented with two feasible operating plans, it will accept the complainant’s plan, even if the defendant’s operating plan, on balance, is more realistic or more persuasively presented.⁴ The Board, therefore, should adopt TPI’s operating plan because it is feasible and supported.

A. TPI has developed a feasible, realistic, and supported operating plan.

TPI’s operating plan for the TPIRR is feasible, realistic, and supported. TPI designed its operating plan around CSXT’s own historical train operations. TPI has identified every road, local, and industrial yard train that handled the TPIRR’s traffic in the Base Year of the SAC analysis, thus ensuring that every customer received the same complete service for every shipment from origin to destination. Because TPI adopted the same historical trains that CSXT operated, it also employed the same blocking plans. In addition, TPI developed car classification

³ *DuPont*, slip. op. at 41. *See also*, *SunBelt*, slip op. at 13.

⁴ *SunBelt*, slip op. at 13, *citing Duke/NS*, 7 S.T.B. at 100.

counts for all of the TPIRR's intermediate yards to ensure adequate yard facilities and staffing.

CSXT lobs multiple criticisms at TPI's operating plan. The triumvirate of criticisms that form the foundation of CSXT's attack are tens of thousands of allegedly missing trains, the absence of a car classification and blocking plan, and an inadequate yard service plan. CSXT's most strident criticisms closely resemble those levied by NS in the *DuPont* and *SunBelt* cases in a thinly-veiled attempt to tar TPI with the same brush. But those criticisms do not stand up to scrutiny in this case. It is particularly revealing that CSXT was forced to retreat from many of its inflated reply evidence claims in its supplemental evidence.

1. CSXT has not proven that TPI omitted any historical local trains or industrial yard trains required to serve the TPIRR's traffic group.

CSXT charged that TPI omitted 44,694 local and industrial yard trains that are needed to provide complete service for the TPIRR's traffic. In rebuttal, TPI conservatively added 11,373 local trains. TPI also has presented supplemental evidence that adds all of the remaining trains in dispute, although TPI continues to vigorously contest the need for those trains. Thus, even if the Board agrees with CSXT that the disputed trains should be included, it need not reject TPI's operating plan on that basis. In the following subsections, TPI separately addresses the disputed local trains and industrial yard trains.

As a threshold matter, relevant to both local and industrial yard trains, CSXT's own MultiRail analysis proves that CSXT has grossly overstated the necessary trains because MultiRail does not assign any traffic to thousands of the trains that CSXT otherwise insists are essential to serve the TPIRR traffic. CSXT misleadingly claims that this is due to deficiencies in its event data that fail to report work performed by trains within the boundaries of a single station. CSXT Supp. Op. at 8. This is a red-herring, however, because MultiRail does not assign cars to trains based upon historical event data. TPI Supp. Reply at 13-14, 28-29. Furthermore,

TPI has demonstrated that the alleged data deficiency is not prevalent. *Id.* at 14, 27-28. Finally, elsewhere in its evidence, CSXT claims that “MultiRail accounts for every step in the process of transporting each car,” CSXT Supp. Op. at 18 (emphasis added), which necessarily means that, if MultiRail has not assigned any cars to a train, that train is not required. TPI Supp. Reply at 13-14, 29-30. This last fact alone exposes CSXT’s overstatement of local and industrial yard trains.

a. CSXT’s local train argument turns TPI’s burden of proof on its head.

CSXT identified two groups of allegedly missing local trains: so-called “On/Off-SARR” and “Other” local trains. All of the local trains still in dispute are “Other” locals.⁵ Specifically, CSXT alleged that TPI omitted 9,894 “Other” local trains, but without offering much support for adding those trains. CSXT Reply at III-C-31 to -35. TPI has accepted 5,433 of these “other” local trains, leaving just 4,461 local trains still in dispute. TPI Reb. at III-C-74 to -82. TPI properly excluded those trains because CSXT’s own traffic data does not indicate that they were required to provide end-to-end service to TPIRR traffic. *Id.* at III-C-74 to -77; TPI Supp. Op. at III-C-18 to -23. CSXT does not deny this fact. Instead, it claims that TPI should have divined from other discovery materials that these trains are necessary. CSXT Reply at III-C-32 to -33. But all that CSXT itself did was tally all of the trains that appeared in any of the databases it provided, and then presume that all such trains are required to move the TPIRR’s traffic, without presenting evidence to support that presumption. TPI Supp. Op. at III-C-22. CSXT’s argument inappropriately imposes upon TPI the burden of proving the negative proposition that the disputed trains did not serve TPIRR’s traffic group.

⁵ Although TPI has accepted CSXT’s addition of “On/Off-SARR” local trains, TPI nevertheless urges the Board to address CSXT’s charge that TPI’s omission of those trains violated SAC principles so that future complainants do not have to risk their entire operating plan to obtain resolution of this issue of first impression in SAC cases. *See* TPI Reb. at III-C-44 to -56.

TPI has the burden of proof to present a feasible operating plan. The “burden of proof” concept encompasses two distinct burdens: “the ‘burden of persuasion,’ *i.e.*, which party loses if the evidence is closely balanced, and the ‘burden of production,’ *i.e.*, which party bears the obligation to come forward with the evidence at different points in the proceeding.” *Schaffer v. Weast*, 546 U.S. 49, 56 (2005). These two concepts are distinguished by the fact that, unlike the burden of persuasion, the burden of production can shift back and forth between parties throughout the proceeding. *Moore v. Kulicke & Soffa Indus.*, 318 F.3d 561 (3rd Cir. 2003).

To carry its burden of production, TPI designed its operating plan around the same historic trains that CSXT used to handle the TPIRR’s traffic group in the Base Year, which is how all prior SAC complainants have attempted to carry this burden. TPI identified the historic trains in CSXT’s Base Year operations from CSXT’s car and train event traffic data. That data does not indicate that the disputed local trains handled any TPIRR traffic. Therefore, the burden of production shifted to CSXT to present evidence that the disputed local trains are historic trains that handled TPIRR traffic. CSXT has not carried that burden.

CSXT has offered only two justifications for the disputed local trains. First, CSXT asserts that its traffic data “generally do not report car handlings by a train unless the train transports one or more cars between two discrete reporting ‘stations’ and that, “[b]ecause the work performed by switcher trains occurs within the boundaries of a single station, CSXT’s event data . . . do not report that the switched cars were handled by the train.” CSXT Supp. Op. at 8. TPI, however, has challenged this alleged data deficiency with evidence that CSXT’s car-event data did record car handlings by trains within a single reporting station. TPI Supp. Reply at 14. Furthermore, even if CSXT’s description of its event data were accurate, it still does not prove that any of the disputed local trains, much less all of them, handled TPIRR traffic in the base year.

Second, CSXT claims to corroborate historic Base Year operations of the disputed local trains based upon a single quarter of its payroll records. CSXT Supp. Op. at 9-10. But that claim misses the point. TPI has not disputed whether these trains operated in the Base Year; rather, TPI has disputed whether they handled TPIRR traffic. *See* TPI Supp. Reply at 12 n.41. CSXT's payroll data does not shed any light on that question.

TPI's rebuttal has included every train that CSXT's own traffic data indicates handled TPIRR traffic, plus thousands of "local switchers" even though CSXT has been unable to demonstrate their necessity except for two trains specifically identified in its reply.⁶ But there remain 4,461 local trains that do not fit within either category and for which CSXT has not offered any evidence that they handled TPIRR traffic. CSXT's insistence upon adding these trains is founded in the erroneous notion that TPI must include every historic train that operated over CSXT in the Base Year unless TPI can prove the negative proposition that the train did not handle TPIRR traffic. That notion turns the burden of proof on its head. TPI has identified every historic train that CSXT's own data shows handled TPIRR traffic, which shifted the burden of production to CSXT to demonstrate that additional trains also handled this traffic. CSXT's failure to do so means that TPI has carried the burden of persuasion and thus its burden of proof.

b. TPI included industrial yard trains in its rebuttal yard jobs evidence.

CSXT's allegation that TPI "missed" 28,860 industrial yard trains attempts to create the misimpression that TPI's operating plan is grossly deficient. From the outset, TPI has maintained that both parties accounted for industrial yard trains in their yard jobs evidence, as opposed to including them in their train lists, due to the difficulty of identifying historic "Y" trains in CSXT's traffic data, which is why TPI did not add any of the allegedly missing industrial yard

⁶ CSXT Reply at III-C-32 to -33 (referencing "Nissan Shuttle" and "Bowater Switcher").

trains to its train list until requested to do so through supplemental evidence.⁷ Indeed, the Board's request for supplemental "Y" train evidence has vindicated TPI's claims by forcing CSXT to acknowledge that it too included industrial yard trains in its reply yard-jobs evidence and to concede that its reply evidence overstated historic industrial yard trains by 21%.⁸ In an ironic twist, TPI's supplemental evidence identified more industrial yard trains than CSXT.⁹ Thus, with the filing of supplemental evidence, both parties have included industrial yard trains in their train lists and RTC models, although TPI contends that it was unnecessary and inappropriate to do so, and that the Board instead should decide which party's yard jobs evidence is superior. TPI Supp. Op. at III-C-4 to -13.

In fact, the supplemental evidence exercise has confirmed that the actual dispute between the parties is whether TPI's rebuttal yard-jobs evidence is sufficient to include both industrial yard train and in-yard switching activities, and thus, whether TPI properly removed industrial yard trains from its supplemental yard jobs evidence to avoid double-counting those trains. Both CSXT and TPI claim that their reply and rebuttal evidence, respectively, included industrial yard trains in their total yard-jobs, and therefore both have removed industrial yard trains from their supplemental yard jobs to avoid double-counting them.¹⁰ CSXT, however, asserts that TPI's total yard jobs are inadequate even to perform in-yard switching, much less to also provide industrial yard train service. CSXT Supp. Reply at 5-19. Thus, CSXT contends that TPI should not have

⁷ See, TPI Supp. Op. at III-C-5 to -8; TPI Reb. at III-C-61 to -62.

⁸ See, TPI Supp. Reply at 21, 24; CSXT Supp. Op. at 13-14; CSXT Recon. Reply at 8.

⁹ Compare TPI Supp. Op. at III-C-13 (identifying 25,119 trains) with CSXT Supp. Op. at 13-14 (identifying 23,868 trains). CSXT claims that, after correcting TPI's evidence to remove trains that operate entirely off-SARR, TPI's methodology actually identified 23,333 trains. CSXT Supp. Reply at 29.

¹⁰ Compare TPI Supp. Op. at III-C-15 to -18 with CSXT Supp. Op. at 17, 39-40, 42.

removed industrial yard trains from its supplemental yard-jobs evidence. *Id.* at 30-31. TPI contends that its rebuttal yard jobs are sufficient to encompass both in-yard and industrial yard trains, but that, even if the Board disagrees, CSXT’s own evidence proves that TPI’s rebuttal yard jobs at least are sufficient to provide in-yard switching despite CSXT’s claims to contrary.

First, TPI’s rebuttal yard jobs are sufficient to encompass both in-yard and industrial yard trains because TPI has included sufficient yard-job assignments to maintain the same level of productivity as the real-world CSXT. TPI Reb. at III-C-130 to -136. TPI began with CSXT’s real-world yard jobs—which CSXT acknowledges includes industrial yard trains. TPI then scaled back the number of yard jobs, because the TPIRR will classify fewer cars on a daily basis than CSXT, to maintain the same level of yard productivity as the real-world CSXT, as measured by cars classified per hump job.¹¹ *Id.* at III-C-132. Because CSXT’s real-world car classification and job count includes industrial yard trains, this productivity measure necessarily also includes industrial yard trains. TPI Supp. Op. at III-C-9 to -10.

Second, even if the Board were to give credence to CSXT’s claim that TPI’s total yard jobs are insufficient to include both in-yard and industrial yard trains, it still should conclude that TPI’s total yard jobs at least are adequate to provide in-yard switching, because CSXT’s own evidence proves this to be true. According to Figure 2 at page 19 of CSXT’s supplemental reply, the difference between the parties’ “Total Yard Jobs” is 85 trains.¹² However, after CSXT

¹¹ CSXT has attempted to rebut TPI’s evidence with new arguments and analyses in its supplemental reply that exceed the permissible scope of that evidence. CSXT Supp. Reply at 5-18. Because that evidence is the subject of TPI’s pending “Motion to Strike, or in the Alternative, for Leave to Reply,” filed November 25, 2015, TPI is not in a position to fully address CSXT’s arguments in this Brief.

¹² Although Figure 2 shows a difference of 97 trains, that is based upon CSXT’s inaccurate claim that TPI’s rebuttal included just 409 total yard jobs when it actually included 421 yard

subtracted the 65 daily “Industrial Y Trains” that are included within its “Total Yard Jobs,” to avoid double-counting those trains, the difference shrinks to just 19 daily trains (440 CSXT trains less 421 TPI trains), or a difference of just 4%, making TPI’s “Total Yard Jobs” nearly the same as CSXT’s evidence of “Y Trains Performing In-Yard Switching.” In other words, if CSXT’s 440 trains performing “In-Yard Switching” are sufficient for that task, then TPI’s 421 “Total Yard Jobs” also must be sufficient for the same task because then the parties’ evidence would be nearly identical.

2. TPI has provided a car classification and blocking analysis.

In *DuPont*, slip op. at 41-42, the Board rejected the complainant’s operating plan in favor of the defendant’s brand new MultiRail-based plan because the Board concluded that the complainant had failed to present a blocking and classification analysis at intermediate yards. CSXT has employed that same argument in this case, but without the same facts. Specifically, TPI has developed car classification counts in this proceeding, which is the central distinguishing factor from *DuPont*. TPI Op. Ex. III-C-1 at 21-22. CSXT, however, still criticizes TPI for not developing a blocking plan. But TPI clearly stated that it operates the same trains with the same blocks through the same yards as the real world CSXT did in the Base Year, thereby adopting CSXT’s actual blocking and train service plans. TPI Op. at III-C-12. Because CSXT’s Base Year blocking and train service plans provided complete service for all of CSXT’s historical traffic that the TPIRR handles, that plan must provide complete service for the TPIRR’s Base Year traffic, which is a subset of the same traffic that the TPIRR moves in the same blocks, on the same trains, and through the same yards as the real world CSXT. TPI Reb. at III-C-106.

jobs. See TPI Reb. Workpaper “TPIRR Yard Operations_Rebuttal.xlsx”, sum of column “AA.” In the main text above, TPI has restated the numbers in Figure 2 to reflect 421 total yard jobs.

CSXT does not contest this fact, but instead alleges that the Base Year blocking plan must be modified for Peak Year volumes. CSXT Reply at III-C-57. That assertion is not credible. TPI Witness John Orrison has testified that railroads do not change blocking plans solely because traffic volumes change. TPI Reb. at III-C-105. In fact, he recognizes CSXT's current blocking plans from when he worked for CSXT 10 and 20 years ago. *Id.* at III-C-107. Rather, blocking plans often are tweaked for temporary phenomena, such as storms and track maintenance, and may be modified on a more permanent basis to accommodate major infrastructure modifications or major shifts in traffic patterns. *Id.* In the SAC analysis, the Peak Year and Base Year traffic patterns are the same; only the traffic volumes have changed. *Id.* at III-C-106 to -107. The SAC analysis also sizes the SARR's infrastructure to handle the Peak Year volume in the same blocks and trains, which means that, unlike the real world of sunk infrastructure where the blocking plans must be designed to fit the infrastructure, the SARR designs its infrastructure to fit its blocking plan. *Id.* at III-C-108 to -109.

Thus, the two principle reasons for modifying blocking plans are not present. The increased volume in the Peak Year would not require modifications to the TPIRR's blocking plan because the traffic patterns are identical to the Base Year and the TPIRR's infrastructure has been designed for the higher volume in the Peak Year. As a result, TPI's classification and blocking plan is feasible and realistic, and CSXT's excuse for creating a new operating plan using MultiRail, rather than correct alleged deficiencies in TPI's opening evidence, is invalid.

3. TPI's yard service plan is feasible.

In *SunBelt*, slip op. at 16, the Board held that "the classification and blocking plan of the incumbent railroad, sufficiently adjusted for volume differences, is one way to show that the proper classification and blocking is occurring at yards on a SARR." According to the Board, the critical factor is that "the complainant shows in some manner that it includes the costs of all

necessary facilities and services, and provides evidentiary support for these costs,” not that the complainant have a blocking plan. *Id.* at 16 n.66. But if the complainant adopts the defendant’s classification and blocking plan, and modifies the defendant’s facilities or reduces the defendant’s staffing, the complainant must establish that the SARR still could adequately serve its traffic group. *Id.* at 16. TPI has made this showing.

First, TPI has accepted CSXT’s reply evidence as to the amount of classification track that the TPIRR would need at each classification yard. TPI notes, however, that its acceptance of CSXT’s reply evidence is conservative because CSXT has gold-plated its analysis in several respects. TPI Reb. at III-C-111 to -115.

Second, TPI has provided sufficient yard receiving and departure tracks for its Peak Week traffic. TPI’s rebuttal and supplemental RTC simulations demonstrate the sufficiency of those tracks. *Id.* at III-C-117 to -120. In rebuttal, TPI accepted CSXT’s reply RTC dwell times to more accurately capture the time that arriving and departing trains would occupy the yard receiving and departure tracks. *Id.* at III-C-116.

Third, TPI has included sufficient yard classification job assignments to maintain the same level of productivity as the real-world CSXT. TPI Reb. at III-C-130 to -136. TPI already has addressed this issue in Part II.A.1.b above. TPI also maintains comparable productivity levels for yard support jobs. TPI Reb. at at III-C-135 to -136.

Finally, TPI has provided sufficient locomotive power at the TPIRR’s yards. *Id.* at III-C-136 to -137. Although CSXT criticizes TPI for not providing a locomotive at every TPIRR yard, neither has CSXT in its reply evidence and neither does the real-world CSXT. The difference between the parties’ locomotive counts is attributable solely to their difference in yard job assignments and CSXT’s double-count of locomotives for pushing cars over the hump.

B. CSXT’s operating plan is impermissible, infeasible, and inefficient.

The Board will adopt TPI’s operating plan so long as it is feasible, even if “[CSXT’s] operating plan were, on balance, more realistic or more persuasively presented.” *SunBelt* slip op. at 13. Therefore, because TPI has presented a feasible operating plan, there is no need for the Board even to consider CSXT’s creation of a new MultiRail-based plan. Nevertheless, the Board should reject CSXT’s operating scheme because it is procedurally improper and prejudicial to TPI, CSXT’s evidence fails to demonstrate the feasibility of its operating plan, and CSXT has baked a multitude of inefficiencies into its operating plan.

1. CSXT impermissibly created an entirely new operating plan, instead of attempting to “correct” alleged flaws in TPI’s plan.

“In most circumstances, the Board would . . . require the defendant in a SAC case to make any necessary corrections to the complainant’s opening evidence rather than submitting something entirely new on reply, to avoid having operating plans so different as to impede comparison.”¹³ In a tacit acknowledgement of this fact, CSXT attempted to portray its reply evidence as “a series of corrections and adjustments to TPI’s operating plan.”¹⁴ But CSXT’s operating plan is a different plan from TPI’s plan down to its most core element, the trains that transport the TPIRR’s traffic. The only thing most of the trains in the TPI and CSXT operating plans have in common is their train symbol (and even then the overlap is only partial).¹⁵ In most instances involving local and industrial yard trains, there is little to no commonality of consists,

¹³ *DuPont*, slip op. at 41; *SunBelt*, slip op. at 13.

¹⁴ CSXT Reply at I-23.

¹⁵ See CSXT “Reply to Complainant’s Motion for Leave to File Reply to Reply,” at 5 (filed Aug. 21, 2015) (admitting that the MultiRail trains are not the same trains in the historical data underlying TPI’s operating plan despite sharing the same symbols); “CSXT’s Reply to Complainant’s Petition for Reconsideration and Clarification,” at 12 (filed Aug. 12, 2015) (showing only a partial correlation between MultiRail and historic train symbols).

routes, or schedules between trains that share a common symbol in both operating plans.¹⁶ In other words, CSXT's operating plan handles much of the TPIRR's traffic in different blocks on different trains that operate on different schedules over different routes from those in TPI's operating plan. Thus, CSXT undeniably has created an entirely new operating plan in violation of Board precedent.¹⁷

The Board should reject CSXT's operating plan because CSXT created a new operating plan by choice, not necessity. The Board has accepted a defendant's entirely new operating plan only when the complainant has omitted an essential element of its operating plan, leaving nothing for the defendant to correct on reply.¹⁸ Although CSXT claims that TPI omitted a classification and blocking analysis (which was the predicate for the Board's prior acceptance of a new operating plan), as demonstrated in Part II.A.2 above, that is not accurate.¹⁹ CSXT has not identified any crucial missing information in TPI's operating plan that precluded it from correcting that plan rather than develop an entirely new plan. In fact, CSXT has argued at great length that TPI possessed all the information it needed to create its operating plan based upon historical trains and that most of TPI's mistakes were methodological.²⁰ If true for TPI, that

¹⁶ See TPI Reb. at III-C-15 to -18 (describing the differences between the train list in the TPI and CSXT operating plans); and 65-70 (demonstrating that there is no connection between historic industrial yard train operations and those in MultiRail). See also, TPI Supp. Reply at 6-10 (illustrating differences between MultiRail and historic trains with the same symbol); 16-18 (same); 30-32 (same); and 39-40 (explaining that MultiRail models "average" consists rather than actual consists).

¹⁷ This argument is not limited to MultiRail-based operating plans; it is equally applicable to any attempt by a defendant to submit a completely new operating plan.

¹⁸ *DuPont*, slip op. at 41-42; *SunBelt*, slip op. at 13.

¹⁹ See also, TPI Op. Ex. III-C-1 at 21-22; TPI Op. at III-C-12; TPI Reb. at III-C-106 to -109.

²⁰ See CSXT Reply at III-C-35 (TPI omitted trains due to methodological decisions); CSXT Supp. Reply at 25-28 (arguing that TPI had more than enough data sources from which to develop an accurate train list).

claim also must be true for CSXT.

CSXT's choice created numerous disconnects between the parties' operating plans that have unduly complicated this proceeding. The principal dispute between the parties has been over 44,000 local and industrial yard trains allegedly missing from TPI's Opening operating plan. If CSXT had followed the Board's admonition "to make any necessary corrections to the complainant's opening evidence rather than submitting something entirely new on reply," it would have added the allegedly missing trains to TPI's Opening train lists and corrected any other alleged errors as part of its reply evidence. On rebuttal, TPI then could have accepted some or all of those corrections or defended its Opening evidence. Upon the close of evidence, the Board would have two versions of the same operating plan from which to choose that would be alike in all respects except for the disputed elements. But that was not possible in this proceeding because CSXT chose to develop an entirely different operating plan in contravention of Board precedent.²¹

The creation of dueling operating plans is especially prejudicial to complainants. SAC proceedings are highly complicated in the best of circumstances and consequently complainants' operating plans are rarely without some flaws.²² But flaws in a complainant's operating plan

²¹ Critical disconnects continue to exist as a consequence of CSXT's decision to flout Board precedent, even after the additional cost and delay of preparing supplemental evidence designed to harmonize the parties' evidence. This is because CSXT has now conceded TPI's argument all along that there were not 28,860 historical yard trains, thereby creating a new disconnect between the parties' evidence. *Compare* CSXT Supp. Op. at 13-14 (conceding only 23,868 industrial yard trains in the Base Year based upon payroll records, but still unable to confirm that those trains handled TPIRR traffic) *with* TPI Supp. Op. at III-C-13 to -14 (identifying 25,119 industrial yard trains based upon traffic data, but noting certain data limits). TPI explains how the Board can work through this new problem in Part II.C.

²² *PSCo/Xcel II*, slip op. at 5 ("Were we to entertain only those rate complaints where the railroad could not poke holes in the operating plan devised by the shipper for its SARR, almost every rate challenge . . . would have had to have been dismissed.").

have greater consequences than flaws in a defendant's plan because the complainant bears the burden of proof. Those consequences are magnified if the defendant is allowed to create an entirely new operating plan because uncorrected flaws in the complainant's plan can leave the Board with no alternative but the defendant's plan, even though that plan also may have significant flaws. Moreover, the defendant has no incentive to design its operating plan to maximize efficiencies, which is true of CSXT's operating plan,²³ thereby defeating a central objective of the SAC analysis. *Coal Rate Guidelines*, 1 I.C.C. 2d at 542. The resulting consequences to complainants provide a perverse tactical incentive for defendants to create new operating plans, if they are given a choice, to make the complainant's task even more difficult.

The requirement that defendants correct the complainant's operating plan rather than create a new plan ensures that a single error in the complainant's plan is not fatal to the rest of its case because the Board will have the evidence it needs to make that correction and still accept other elements of the operating plan that are realistic and feasible. It also ensures a more efficient litigation process by avoiding the need to solicit supplemental evidence. If the Board abandons that requirement, its only other options will be to accept the defendant's operating plan or increase the time, expense, and complexity of SAC cases by routinely requesting supplemental evidence. This will allow defendants to sit back and take pot shots at the complainant's evidence while presenting alternative plans that also may suffer from serious flaws and contain substantial inefficiencies.²⁴ For all of the foregoing reasons, it would be fundamentally unfair for the Board

²³ See TPI Reb. at III-C-23 to -30 (describing the inefficiencies CSXT built into its operating plan); TPI Supp. Reply at 24-26 (showing how CSXT padded its industrial yard train list). See also, CSXT Supp. Op. at 13-14 (conceding a 21% overstatement of industrial yard trains in its Reply only after the STB required the parties to identify historic trains).

²⁴ TPI has shown that CSXT included excessive track infrastructure in its evidence through two different analyses: (1) by modeling CSXT's operating plan in TPI's leaner Rebuttal RTC

to accept CSXT's entirely new operating plan in violation of established precedent. Regardless of how the Board resolves the problem that CSXT has created in this case, it should confirm for all future SAC litigants that it is not permissible for a defendant to create a new operating plan when the alleged flaws in the complainant's operating plan are correctible.

Furthermore, CSXT has unfairly constrained TPI's review and analysis of CSXT's evidence by only providing TPI with a read-only version of the MultiRail software that CSXT used to create its operating plan. The read-only version lacks many of the features and capabilities of the fully-functional version that CSXT used to develop its evidence. For example, TPI cannot verify that CSXT constructed its MultiRail model in the manner that CSXT claims; TPI cannot export data to Excel for efficient review and analysis; and TPI cannot "correct" or "restate" CSXT's MultiRail evidence to demonstrate the impact of CSXT's errors and inefficiencies. TPI Reb. at III-C-35 to -38. The Board's ability to review and evaluate both CSXT's MultiRail evidence and TPI's critique is further constrained by not having access to MultiRail at all. Indeed, without access to MultiRail, the Board cannot truly comprehend the limitations under which TPI has labored to evaluate CSXT's evidence.

CSXT's presentation of its MultiRail evidence, without also providing the software itself to both the Board and TPI, calls into question the validity of CSXT's evidence and is fundamentally at odds with due process. It also exacerbates the problem caused by having two operating plans that are so different as to impede comparison, which is why the Board requires the defendant to make corrections to the complainant's operating plan rather than submit something entirely new on reply.

network and still achieving the same level of service as CSXT's Supplemental RTC simulation, and (2) by running CSXT's Supplemental RTC simulation with 415 fewer miles of track and generating identical cycle times. TPI Supp. Reply at 47-48.

2. Because CSXT has not modeled its MultiRail operating plan in the RTC simulation, even after granted a second opportunity to do so, CSXT has not demonstrated its feasibility.

The RTC model is used in SAC cases “to determine the feasibility of the [SARR’s] operating plan and develop key operating characteristics of the SARR.” *AEPSCO*, slip op. at 28. The RTC model permits the proponent of each operating plan “to both test the adequacy of the configuration (to make sure the [SARR] will have sufficient capacity to handle the peak forecast demand), and then to derive the segment-by-segment cycle times (which it then use[s] to develop the operating costs of the [SARR] in the base year).” *Western Fuels I*, slip op. at 15. Therefore, a defendant “cannot protest that an input into the RTC model is flawed without showing the consequence of changing that input on the output of the model.” *Otter Tail*, slip op. at 19. The Board requested supplemental evidence from CSXT in this proceeding because CSXT had not submitted an RTC model that reflected the MultiRail-based operating plan in its reply narrative and spreadsheet evidence, including all of the trains that CSXT claimed are necessary to provide complete service. *Supp. Evid. Order*, slip op. at 7-8. Despite this second chance, CSXT still has not presented an RTC model that reflects its narrative and spreadsheet evidence. Nor does CSXT’s MultiRail operating plan provide complete service to the TPIRR traffic, including some of TPI’s traffic. Thus, there is no evidence to support the feasibility of CSXT’s operating plan.

CSXT took multiple shortcuts in its supplemental evidence that created critical disconnects between its MultiRail operating plan and RTC simulation. First, CSXT has not even modeled its reply MultiRail train list in the RTC simulation as directed by the Board. TPI Supp. Reply at 32-34. CSXT revised its hypothetical MultiRail trains in its supplemental RTC simulation based upon historical consists, schedules, and routes that are different from those in its MultiRail operating plan. *Id.* at 18-20, 30-32, 34-36, 39-41. For intermodal traffic, CSXT’s inability to identify individual shipments moving on individual trains prevents it from proving

that its operating plan provides complete service to all intermodal customers. *Id.* at 6-9. Moreover, CSXT's MultiRail SuperSim analysis identifies TPIRR traffic, including issue traffic, that does not receive complete service under CSXT's operating plan. *Id.* at 36-38. CSXT's failure to model train-specific consists in the RTC simulation causes other service problems and the supplemental RTC model itself reveals a distinct lack of train activity at many locations that were served by CSXT's reply RTC model. *Id.* at 41-43, 44-47.

CSXT's supplemental RTC model replicates many of the same errors that TPI identified in CSXT's reply RTC model. For example, CSXT has not modeled the yard receiving and departure tracks developed by its operating witness, Jeremiah Dirnberger.²⁵ But CSXT cannot propose changes to its yard receiving and departure tracks without tracing the effect through the entire network. *Otter Tail*, slip op. at 19 ("A defendant cannot protest that an input into the RTC model is flawed without showing the consequence of changing that input on the output of the model."). Indeed, CSXT's supplemental RTC simulation demonstrates that CSXT overbuilt some yard receiving and departure tracks and underbuilt others. TPI Supp. Reply at 48-49. The overbuilt tracks are examples of excessive infrastructure, whereas the underbuilt tracks demonstrate the outright failure of CSXT's operating plan. Cumulatively, CSXT's supplemental RTC simulation uses 100 fewer miles of receiving and departure tracks than Mr. Dirnberger has proposed for CSXT's operating plan. Supp. Reply Ex. TPI-5.

CSXT may not rely upon its MultiRail analysis to demonstrate the feasibility of its operating plan. In *SunBelt*, slip op. at 17, the Board expressly declared that MultiRail "does not replace the RTC simulation . . . , which must still be run to confirm the feasibility of the operating plan." *See also, DuPont*, slip op. at 43 ("The output from MultiRail is used as the input

²⁵ Compare TPI Reb. at III-C-125 to -130 with TPI Supp. Reply at 48-49.

for the RTC”). Consequently, because CSXT did not model its MultiRail operating plan in its RTC simulation, it has not demonstrated the feasibility of that plan.

3. CSXT’s MultiRail evidence has baked substantial inefficiencies into its operating plan.

CSXT touts its operating plan as “least cost, most efficient” and feasible because it developed the operating plan using MultiRail. But MultiRail does not by itself automatically generate an optimal or efficient operating plan. Instead, the efficiency of CSXT’s MultiRail operating plan depends primarily upon CSXT’s inputs to the program. Many of CSXT’s inputs have created substantial inefficiencies. TPI Reb. at III-C-21 to -30.

The most significant of CSXT’s inputs are the trains that CSXT has included in its MultiRail analysis. MultiRail did not determine how many trains were necessary; CSXT did. MultiRail merely assigned traffic to whatever trains CSXT input. In this case, CSXT input nearly every local train into MultiRail that existed in CSXT’s train profile sheets, regardless of whether they actually are necessary to handle the TPIRR’s traffic. Consequently, CSXT’s MultiRail analysis generally assumes that every local train runs every day it is scheduled, even if MultiRail has not assigned a single carload of traffic to that train. *Id.* at III-C-24 to -25. The most basic illustration of the excessive number of local trains in MultiRail is that the local trains in CSXT’s “corrected TPI Opening” train list, which is based on CSXT’s historical operations, operate with an average 23.2 cars per train, whereas CSXT’s MultiRail local trains operate with an average 10.7 cars per train. *Id.* at III-C-30. This is because thousands of local trains in MultiRail operate with only fractions of a single car or no traffic at all. *Id.* at III-C-25 to -27. In addition, CSXT modeled duplicative trains that carry the same traffic on the same day, multiple trains that can be consolidated to provide more efficient service, trains that run empty on significant portions of their routes, and circuitous routes that are up to 992% longer than the optimal route. *Id.* at III-C-

27 to -30. Furthermore, many of the criticisms that CSXT has levied against TPI's operating plan are replicated in CSXT's MultiRail analysis. *Id.* at III-C-34.

CSXT's MultiRail analysis eschews the proven, real world operations that underlie TPI's operating plan, resulting in blocking and train service plans of unproven and questionable feasibility. Although CSXT claims that its MultiRail model is tied to its real world operations because CSXT began modeling with the same blocks and same train symbols it uses in the real world, CSXT does not assign cars to the same blocks or blocks to the same trains as it does in the real world—it assigns them based on its MultiRail criteria and adjustments made by the user. This results in a blocking and train service plan that moves TPIRR's traffic differently from the proven feasibility of CSXT's historical service that is the foundation of TPI's operating plan.

C. The Board has sufficient evidence to adopt TPI's operating plan regardless of how it resolves the missing train disputes.

The Board has attempted to redress the detrimental effects of allowing CSXT to present a new operating plan in this case by requesting supplemental evidence from TPI that includes the disputed local and industrial yard trains. Although this supplemental evidence has reconciled the parties' local train differences, it created a new disconnect for industrial yard trains. Specifically, CSXT admitted that its reply evidence overstated industrial yard trains by 21% and consequently modeled fewer trains than either its reply or TPI's supplemental evidence.²⁶ Furthermore, both parties used different methods to identify historical industrial yard trains that produced different industrial yard train counts. Finally, as discussed in Part II.A.1.b above, the parties disagree over whether it was appropriate for TPI to remove industrial yard trains from its supplemental yard jobs evidence to avoid double-counting those trains. Despite these new problems caused by

²⁶ CSXT Supp. Op. at 13-4 (conceding that only 23,868 trains even operated in the Base Year, much less handled TPIRR traffic, out of 28,860 trains that CSXT initially alleged TPI omitted).

CSXT's creation of an entirely new operating plan, the Board still can and should adopt TPI's operating plan regardless of how it resolves the foregoing issues with industrial yard trains.

As an initial matter, TPI urges the Board to adopt its rebuttal local train list (as reflected in TPI Supp. Scenario #1) and to address industrial yard trains by selecting either CSXT's or TPI's yard jobs evidence. This is appropriate because both parties have declared that they have included industrial yard trains in their yard jobs evidence. This option also does not require any double-count adjustments to either parties' yard jobs evidence

However, if the Board accepts CSXT's local train list and TPI's industrial yard trains, it should adopt TPI's supplemental evidence (Scenario #2 or #3). The Board then can separately decide whether TPI's double-count adjustment to its supplemental yard jobs evidence is appropriate. For example, if the Board were to conclude that TPI's yard jobs evidence is sufficient only for in-yard switching (i.e., omits industrial yard trains), the Board could apply TPI's supplemental yard jobs without the double-count adjustment.

Lastly, even if the Board were to accept CSXT's local trains and yard jobs evidence, it still should reject CSXT's operating plan for the reasons presented in Part II.B above and adopt a hybrid version of TPI's supplemental evidence (Scenario #2 or #3) with CSXT's supplemental yard jobs. Specifically, because TPI's supplemental evidence includes the same local trains as CSXT's supplemental evidence and more industrial yard trains, TPI's evidence is more conservative than CSXT's. To combine that with CSXT's yard-jobs evidence, however, the following adjustments are necessary:²⁷

1. Remove 128,546 yard jobs from TPI's yard jobs matrix. Remove 25,119 industrial yard trains from TPI's train list.

²⁷ If the Board takes this approach and has any questions as to where and how to make these adjustments, it can request a technical conference.

2. Remove 224 locomotives, 7,520,749 locomotive unit miles, and 634 crew personnel.
3. Add 160,696 yard jobs from CSXT's yard-jobs matrix, which are the total yard jobs after CSXT removed 23,829 industrial yard trains to avoid double-counting them. Next, increase these yard jobs by TPI's 25,119 industrial yard trains.
4. Add 245 locomotives, 8,125,998 locomotive unit miles, and 818 crew personnel.

The net result of these adjustments is an increase of 32,150 yard jobs, 21 locomotives, 605,249 locomotive unit miles, and 184 crew personnel. This increases operating expenses for locomotives and crew personnel (including training) with minor impacts to operating materials and supplies, G&A, and insurance.

III. INTERNAL CROSS-OVER TRAFFIC IS CONSISTENT WITH SAC PRINCIPLES AND ESSENTIAL TO KEEPING THE SAC ANALYSIS MANAGEABLE.

CSXT objects to TPI's use of internal (so-called "leapfrog") cross-over traffic, which it has mischaracterized as "a radical expansion" of cross-over traffic. CSXT Reply at III-A-30. But internal cross-over traffic is the mirror image of so-called "traditional" overhead crossover traffic, which the Board has long accepted. Internal cross-over traffic serves the same objectives as cross-over traffic in general by keeping the SAC analysis focused on the portion of the CSXT system that is needed to transport TPI's traffic, while permitting the TPIRR to achieve the same economies of scale and density as the real-world CSXT without expanding the SARR to an ever larger and more complex system.²⁸ The Board, therefore, should reject CSXT's attempt to carve out an internal cross-over exception to cross-over traffic. Internal cross-over traffic is consistent with SAC principles and Board precedent; it is a part of real-world railroading; and it is essential to a manageable and cost-effective SAC analysis for carload traffic. TPI Reb. at III-C-82 to -105.

The only difference between internal and so-called "traditional" overhead cross-over

²⁸ *E.g., Nevada Power II* at 265-66; *PSCo/Xcel I* at 601-03; *Western Fuels I*, slip op. at 11.

traffic is that the residual incumbent is the bridge carrier in the former, whereas the SARR is the bridge carrier in the latter. Therefore, condemnation of one constitutes condemnation of both. Indeed, rail industry attacks upon traditional overhead cross-over traffic have alleged that it is biased in favor of the SARR, which operates as the bridge carrier. But if that were true, CSXT should have no objection to internal cross-over traffic because the bias would favor the residual CSXT, which operates as the bridge carrier for internal cross-over movements on the TPIRR. TPI Op. at III-A-17 to -21.

Each of CSXT's attacks upon internal cross-over traffic is without merit:

- *First*, CSXT wrongly contends that internal cross-over traffic violates SAC principles by allowing the SARR to achieve *greater* economies of scale, scope and density than the incumbent enjoys. CSXT Reply at III-C-48 to -49. The use of internal cross-over traffic ensures that the traffic follows the historical route of movement over On-SARR and Off-SARR segments, thereby allowing the SARR's economies of scale to equal the residual incumbent's. If the traffic were rerouted off the residual incumbent line and onto alternate SARR routes, only then would the SARR's economies of scale differ from the incumbent's. But that is precisely what SAC both permits and encourages through tools such as rerouting traffic to increase density. TPI Reb. at III-C-90 to -93.
- *Second*, CSXT inaccurately claims that internal cross-over traffic is different from traditional cross-over traffic because it does not reduce the geographic scope of the SARR, even though CSXT concedes that the internal cross-over segments on the TPIRR add up to 4,500 miles. *Id.* at III-C-93 to -94.
- *Third*, CSXT inexplicably alleges that internal cross-over traffic complicates the SAC analysis by creating interchanges between the TPIRR and CSXT at points that do not exist in the real world, even though that also is true of traditional cross-over traffic, which adds interchanges at the *exact same* locations. Moreover, the addition of 4,500 route miles of additional track would complicate the SAC analysis far more than a few interchanges. *Id.* at III-C-94 to -95.
- *Fourth*, CSXT's claim that internal cross-over traffic violates the Board's rules for re-routing is baseless, because internal cross-over traffic does not require any rerouting. Furthermore, The Board's re-routing rules are aimed at cost shifting that does not occur with internal cross-over movements. *Id.* at III-C-95 to -98.
- *Finally*, the facts do not support CSXT's claim that TPI is using internal cross-over traffic to "game" the SAC analysis. *Id.* at III-C-99 to -101.

Any restrictions upon the use of cross-over traffic in SAC cases would deprive carload shippers of a practical means by which to present rate complaints because the SAC process will have become so impracticable, complex, and expensive that the pursuit of regulatory rate remedies would be futile. TPI Op. at III-A-24 to -25. Large-scale SARRs designed to serve scores of origin-destination pairs, which already are extremely complex and costly to present, inevitably will create internal cross-over segments because many of the incumbent's lines will not be needed to serve the issue traffic. A ban on internal cross-over traffic would force complainants to choose between increasing the cost and complexity of SAC cases by drastically expanding their SARRs to include the internal cross-over segments or accepting much lower traffic densities that would preclude a SARR from achieving the same economies of scale and density as the defendant, with the consequence of reducing the level of rate relief or even eliminating relief altogether. TPI Reb. at III-C-103 to -105.

IV. CSXT UNDERSTATES THE TPIRR'S VOLUME AND REVENUE.

The parties disagree over the inclusion of high-priority intermodal traffic volumes in the TPIRR traffic group (historical and projected) and the proper method of forecasting the TPIRR's traffic volumes from 2014 through 2020. They also have three broad areas of disagreement in the calculation of the TPIRR traffic revenues (historical and projected).

A. TPI's volume calculations are correct and are based on past Board precedent and procedures.

1. TPI has justified the inclusion of high-priority intermodal traffic.

The parties disagree on the inclusion of high-priority intermodal traffic volumes in the TPIRR traffic group and the Board has required the parties to model their operating plans both with and without this disputed traffic. TPI has demonstrated in both its rebuttal and supplemental evidence that CSXT's reasons for excluding this traffic are without merit and that the TPIRR's

transit times are comparable to, if not better than, CSXT's historic transit times.²⁹ Although CSXT criticized TPI's transit time analysis in its supplemental reply and restated that analysis after "correcting" the alleged flaws, TPI has not had an opportunity to present rebuttal evidence. CSXT Supp. Reply at 38-44. But such rebuttal is unnecessary because, even if the Board gave credence to CSXT's attempted restatement of TPI's transit-time analysis, *id.* at 44, the restated transit times would be insufficient to reject this traffic.

First, CSXT's restatement ignores TPI's argument that additional interchanges for this cross-over traffic could be coordinated with the need to stop for refueling, inspection, switching out cars, and other operating activities, resulting in fewer additional stops than CSXT's analysis presumes. TPI Reb. at III-A-5. Each interchange that can be coordinated with stops for other activities eliminates 30 minutes of transit time from CSXT's restatement of TPI's analysis. CSXT Supp. Reply at 43.

Second, CSXT's restatement shows that the full year average transit times for the disputed high-priority intermodal traffic exceed the actual CSXT full year average by just 1 hour. As noted in the preceding paragraph, these transit times can be reduced by half or eliminated entirely by coordinating just 1 or 2 interchanges with stops required to perform other activities. But even accepting that there would be a full 1 hour average transit time increase, that is insignificant in the context of a total average origin-to-destination transit time for this traffic of 26 hours. CSXT's only support for its charge that TPIRR would lose this business over a 1 hour difference is a news article about UPS pulling traffic from CSXT in 1999 during the service crisis that followed the Conrail split. *Id.* at 39 n.117. But this article demonstrates that CSXT lost that traffic over wildly inconsistent and unreliable service. Furthermore, CSXT has not presented

²⁹ See TPI Reb. at III-A-4 to -6; TPI Supp. Op. at III-C-24 to -27.

any evidence of a minimum transit time requirement for this high-priority traffic. TPI Reb. at III-A-5. The Board, therefore, should accept this traffic as part of the TPIRR traffic group.

2. TPI has presented the best evidence of traffic volume projections.

The parties agree on the methodology to develop the TPIRR's projected traffic volumes from 2014-2017 for all commodities except for coal. As to coal volumes from 2014-2017, TPI has accepted CSXT's criticism that TPI's opening methodology relied upon growth rates from CSXT's own internal forecast for coal movements that are not included in the TPIRR traffic group to develop an average growth rate for all coal movements included in the TPIRR traffic group. TPI agrees that this could skew its opening volume projections. TPI, however, has rejected CSXT's complicated alternative as similarly skewed and procedurally improper. The proper and straight-forward correction is to apply TPI's opening methodology but to exclude growth rates from CSXT's own internal forecast for those coal movements that are not part of the TPIRR's traffic group when developing an average growth rate for all coal movements included in the TPIRR traffic group. In contrast, CSXT employs an unnecessarily complicated methodology that required it to make numerous adjustments and assumptions and to selectively update its own internal coal forecasts. TPI's rebuttal approach is superior because it is consistent with recent Board decisions in *DuPont* and *SunBelt* and it maintains consistency with the forecast methodology also used by TPI (and accepted by CSXT) for merchandise and intermodal traffic volumes. TPI's approach addresses CSXT's criticism in a straightforward manner, whereas CSXT's methodology requires selective adjustments to the internal coal forecasts CSXT provided in discovery. Because CSXT did not update its forecasts for all commodities, its methodology creates a situation that is ripe for "gaming." TPI Reb. at III-A-6 to -11.

CSXT rejects TPI's utilization of a CAGR based on CSXT's own internal forecast to project TPIRR traffic volumes for 2018-2020. TPI's evidence is well-supported, accurate, and

consistent with Board precedent. TPI demonstrated in rebuttal that it has properly used a CAGR to forecast the TPIRR's traffic volumes. A CAGR also is consistent with the methodology approved by the Board in *DuPont* and *SunBelt* and also used in *FMC*, 4 S.T.B. at 730. Moreover, the two "distortions" associated with the use of a CAGR that CSXT cites actually have a very negligible impact on 2018-2020 volumes and can work in both directions with minimal net impact on total volumes. In contrast, CSXT's proposed EIA AEO methodology to forecast non-coal traffic is complicated, unprecedented and prone to distortions. TPI Reb. at III-A-11 to -14.

B. CSXT has made inappropriate adjustments to the TPIRR's revenue.

The parties disagree on certain adjustments that CSXT made to TPI's revenue calculations in the following three areas: (1) adjustments for movements with no shipment keys; (2) fuel-surcharge adjustments; and (3) adjustments to TPIRR cross-over traffic. All three adjustments are inappropriate.

First, the parties disagree on adjustments to the calculation of historical revenues for TPIRR traffic for a unique set of CSXT records. CSXT produced certain revenue waybill records to TPI without a vital field called a "shipment key" that is needed to link CSXT's historical car and container revenue data with its car-event data. This deficiency impeded TPI's ability to evaluate and assign \$660 million of revenue to the TPIRR. Although CSXT admits to this data deficiency, it criticizes TPI's resolution of the problem and offers its own alternative. The time for offering solutions, however, was during the discovery process, because TPI fully informed CSXT of the problem during discovery and CSXT declined TPI's repeated requests for clarification at that time. TPI Reb. at III-A-23 to -25.

Second, the parties disagree over the application of fuel surcharges upon the expiration of existing contracts. Whereas CSXT assumes that the current contract terms will extend beyond expiration, TPI assumes that CSXT's tariff fuel surcharge program will apply. TPI's position is

consistent with both CSXT and rail-industry practice of applying fuel surcharges to legacy contracts as those contracts expire. TPI Reb. at III-A-36 to -39.

Lastly, CSXT improperly proposes two alternative modifications to the ATC revenue-allocation methodology when applied to internal cross-over (so-called “leapfrog”) traffic. This is procedurally improper because the Board adopted ATC through a notice-and-comment rulemaking proceeding, which cannot be modified by adjudication. In addition to this fatal procedural flaw, CSXT’s first proposal undermines the very fabric of the ATC methodology by allocating cross-over revenues on the basis of the SARR’s costs rather than the incumbent’s cost and expanding the SAC analysis to off-SARR segments, which effectively destroys the objective of cross-over traffic in the first instance. *Id.* at III-A-25 to -28. CSXT’s second proposal attempts to resurrect the consistently rejected efficient component pricing concept. *Id.* at III-A-28 to -29.

V. TPI’s OPERATING EXPENSES ARE REASONABLE.

The vast majority of the difference in operating expenses between TPI and CSXT is attributable to their different operating plans, which TPI has addressed in Part II, above. As discussed in this Part V, significant differences also exist in other areas that are at least partially independent of the operating plan: railcar expenses, operating personnel, G&A costs, MOW costs, and ad valorem taxes.

A. CSXT has made inappropriate adjustments to freight rail car costs.

CSXT made inappropriate adjustments to freight rail car costs in three areas: lease rates, yard dwell times, and peaking factors.

Although 2010 is the beginning date for the TPIRR’s operations, CSXT used lease rates from 2008 for box cars, covered hoppers, and coal-service open-top hoppers. TPI’s 2010 lease rates are more appropriate than CSXT’s 2008 rates. Although TPI itself used a 2008 lease rate for box cars because it could not identify a 2010 rate, CSXT used a different 2008 source than

TPI. CSXT also criticized TPI for failing to account for different costs for 50-foot and 60-foot box cars, but then CSXT itself did not make that distinction. Therefore, in response to CSXT's criticism, TPI has used the average rate for 50-foot and 60-foot box cars from the same 2008 source it used in Opening, weighted by the number of TPIRR shipments in each car size.³⁰ TPI Reb. at III-D-17 to -18.

CSXT overstates the dwell times for freight cars in the TPIRR's yards. CSXT imposes its historical dwell-time experience upon the TPIRR even though the TPIRR handles significantly fewer cars. CSXT also rejects TPI's dwell times, which are based upon the experiences of KCS, CP, and CN, on grounds that those more efficient carriers are smaller than the TPIRR. But CN originated an average of 1.7 million carloads annually in the U.S. from 2010-2012, while TPIRR originates only 908,242 cars in its Base Year. Finally, CSXT unrealistically assumes that every car on the TPIRR will experience four yard-dwell events in its round trip cycle, including cars in unit trains, which by definition do not interchange their cars between the origin and destination. TPI has applied realistic measures of four yard-dwell events for local trains, two for interchange received and forwarded traffic, and none for unit trains.³¹ TPI Reb. at III-D-21 to -22.

CSXT also imposes unrealistic and excessive rail car peaking factors by individual car type ranging from 43 to 146 percent. CSXT has not provided evidence that any real-world rail carrier actually maintains car fleets with such astronomical peaking factors. CSXT's peaking factors would require the TPIRR to maintain a rail-car fleet where a vast number of cars would

³⁰ See *Duke/NS* at 101 (“Where the railroad has identified flaws in the shipper’s evidence but has not provided evidence that can be used in the Board’s SAC analysis . . . , the shipper may supply corrective evidence.”).

³¹ See *id.* (“Where the railroad has identified flaws in the shipper’s evidence but . . . the railroad’s evidence is itself unsupported, infeasible or unrealistic, the shipper may supply corrective evidence.”) (footnote omitted).

sit idle for much of the year. TPI Reb. at III-D-27 to -30. The common-carrier obligation does not impose such onerous car-service requirements:

[T]he common carrier obligation only requires a carrier to maintain a fleet sufficient to meet average demand. A requirement for a fleet sufficient to meet peak demand would result in a wasteful surplus of equipment detracting from the carrier's long term financial health.³²

Thus, it would violate SAC principles to impose a car-service requirement upon the TPIRR that is not required of CSXT. In contrast, TPI's 5.3-percent peaking factor is based upon the same methodology that the Board first prescribed in *PSCo/Xcel II*, slip op. at 13, and has used in every SAC proceeding since then. TPI Reb. at III-D-24 to -27. CSXT has not justified a deviation from this Board-approved methodology.

B. CSXT overstates the necessary operating personnel for the TPIRR.

CSXT overstates the TPIRR's train & engine personnel in multiple ways. First, contrary to all previous Board decisions dating back to *FMC*, CSXT restricts road crews to 251 shift starts per year.³³ CSXT Reply at III-D-58. TPI's assumption of 270 shift starts is reasonable based on road crews that work six days per week, 45 weeks per year. In most instances, the crew begins its week on duty at home, travels to the other end of the district in one shift, rests a minimum of ten hours, and travels back home on its next shift. Each crew member makes three such roundtrips per week, 45 weeks per year, thus leaving seven weeks per year for time off, vacations, holidays,

³² *Nat'l Grain & Feed Assoc. v. Burlington N. R.R. Co.*, 8 I.C.C.2d 421, 427 (1992), *aff'd in part and rev'd in part sub nom. Nat'l Grain & Feed Assoc. v. ICC*, 5 F.3d 306, 311 (8th Cir. 1993) (affirming the quoted text as to fleet size). *See also, Allied Corp. v. Union Pac. R.R. Co.*, 1 I.C.C.2d 480, 484 (1985) ("it would be a questionable use of limited railroad capital for the carriers to acquire all of the equipment needed to handle the periodic peak traffic when those cars would otherwise sit idle.").

³³ *See, e.g., FMC* at 833, *TMPA* at 667, *CP&L* at 291, *Duke/CSXT* at 456, *PSCo/Xcel I* at 644, *Western Fuels I*, slip op. at 40; *DuPont*, slip op. at 78; *SunBelt*, slip op. at 42.

personal leave, etc. Because 270 shift starts annually is feasible, realistic, and consistent with precedent, the Board should reject CSXT's proposed departure from precedent. TPI Reb. at III-D-30 to -31.

Second, CSXT's application of its locomotive rebalancing percent to determine the TPIRR's crew rebalancing percent is unsupported and unrealistic. CSXT Reply at III-D-48. Because trains have varying numbers of locomotives, depending on the weight of the train and the terrain over a particular route, the number of locomotives that must be rebalanced will always be greater than the number of crews that must be rebalanced. TPI Reb. at III-D-32.

Third, CSXT replaces TPI's re-crew rate with a rate allegedly based on CSXT's actual experience in the past three years. CSXT Reply at III-D-51. The TPIRR's re-crew rate, however, should not be based upon CSXT's actual experience, but instead should be determined by the RTC simulation, which reflects the TPIRR's operating plan and traffic volumes. TPI Reb. at III-D-32 to -33.

C. TPI's G&A expenses are appropriate for the TPIRR's size and traffic.

There is a \$67 million difference in the parties' G&A expenses for the TPIRR. This differential is attributable primarily to the different approaches employed by each. CSXT employed a "top-down" approach that utilizes the existing CSXT as a starting point, thereby incorporating the inefficiencies and characteristics of a very large Class I staff developed through years of consolidations and technology shifts to serve varied types of traffic and countless lower density rail lines and branch lines. In contrast, TPI has taken a "bottom-up" approach which reflects the fact that the TPIRR is a new, startup railroad that will not face many of the same costs and burdens as an existing railroad nor replicate many of the real-world CSXT's lower density rail lines.

CSXT engages in a deceptively flawed attempt to justify its G&A expenses for the

TPIRR by comparing them to those of other Class I carriers as a percent of revenues. CSXT Reply at III-D-78. As described in TPI Rebuttal Exhibit III-D-1, at pages 11-13, CSXT's comparison of other carriers' G&A expenses includes errors as well as expenses that are not in the TPIRR numbers—such as Casualties & Insurance, Write-downs of Uncollectible Accounts, Other Taxes Except on Corporate Income or Payrolls, Joint Facility–Debit, Joint Facility–Credit, and Other—thus creating an apples-to-oranges comparison with the TPIRR. Correcting these errors reveals that CSXT's 2010 through 2012 G&A expenses, as a percent of revenue, far exceed those of any other Class I carrier, and TPI's rebuttal G&A expenses (as a percent of revenue) are consistent with the more efficient carriers, especially considering that TPI developed its staffing for the TPIRR with a bottom up approach for a new, least-cost, most-efficient carrier. TPI Reb. at III-D-51. Indeed, TPI's more appropriate apples-to-apples comparison exposes the flaw in starting with CSXT's own G&A expenses in a “top-down” approach, because CSXT is the least efficient of all the Class I railroads and is more than five times less efficient than its closest rival, NS. In contrast, TPI's “bottom-up” approach produces G&A expenses that still are more than double that of NS by the same measure but comparable to both UP and BNSF. *Id.* Thus, TPI's evidence is a conservative picture of a least-cost SARR, which is the goal of the SAC analysis.

CSXT also attempts to compare its G&A evidence with prior SAC cases. CSXT Reply at III-D-80 to -81. But CSXT's comparison assumes that the support underlying the evidence accepted in previous cases applies in this case. The Board's reasoning for accepting evidence in previous cases varies and CSXT has not identified any similarities between the support accepted in previous cases and the support provided by TPI in this case. TPI Reb. Ex. III-D-1 at 13. Indeed, CSXT itself repeatedly has argued that it should not be bound by the evidentiary choices

litigants made in prior cases. That is especially important for G&A expenses when the only previous case involving a SARR of comparable size and traffic mix is *DuPont*. Because the TPIRR is more similar to existing Class I carriers than to prior SARRs, TPI's rebuttal comparison of G&A expenses as a percent of revenue is a superior indicator that TPI's G&A expenses are more realistic. TPI Reb. at III-D-51.

D. TPI's MOW plan is designed for a newly-constructed railroad, whereas CSXT assumes a legacy railroad constructed over many decades.

As with G&A expenses, CSXT employed a "top-down" approach to developing the TPIRR's MOW expenses, while TPI used a "bottom-up" approach. TPI Reb. Ex. III-D-2 at 15-17. Consequently, CSXT proposes MOW expenses that are nearly double that of TPI and a MOW staff that is 72 percent larger. *Id.* at 14-15. The employment of a "bottom-up" approach for MOW expenses is very important for a SARR that is newly-constructed because its maintenance requirements will not be nearly as great as CSXT's legacy system, portions of which were constructed over a century ago. *Id.* at 17-23. Contrary to CSXT's assertions, fewer maintenance requirements does not equate to deferred maintenance, but merely reflects the TPIRR's brand new infrastructure, just as a brand new car would have fewer maintenance needs than a 10-year old car. *Id.* at 23-24. Because the components used to construct the TPIRR all have useful lives that extend beyond ten years, the MOW benefits of the TPIRR's new infrastructure will encompass the entire SAC analysis period.³⁴ Imposing the cost of new infrastructure upon the TPIRR, but denying it the benefit of that investment by imposing the MOW costs associated with much older infrastructure, violates SAC principles.

³⁴ Although CSXT concedes this point with respect to bridges, it does not acknowledge any benefits from new track infrastructure. *See* CSXT Reply Workpaper "Note on Correction of TPI Estimates of CSXT MOW Workforce per Main Track Mile.docx," pp. 2-3.

TPI has demonstrated the reasonableness of its MOW staffing with evidence that its MOW employees for the TPIRR cover fewer miles than their real-world CSXT counterparts.³⁵ Specifically, TPI performed an apples-to-apples, position-by-position, comparison with CSXT's real-world staffing.³⁶ To generate that comparison, TPI removed from its calculations certain CSXT employees required for program maintenance, new construction, floating crews, system crews, and other positions not needed by the TPIRR. Although CSXT agrees that some adjustments to its real-world staffing levels are necessary to generate an apples-to-apples comparison, it disagrees with the propriety of most TPI adjustments. TPI, however, has demonstrated that its adjustments are proper. TPI Reb. Ex. III-D-2 at 10-14.

CSXT also attempted to discredit TPI's analysis by understating the number of CSXT track miles. In its reply analysis, CSXT omitted approximately 10,000 miles of yard, set-out, and helper track that its MOW employees also must maintain, which understated CSXT's real-world miles per MOW employee by 29 percent on average. TPI's analysis, in contrast, includes all of the track miles maintained by both CSXT and the TPIRR. *Id.* at 7-10, 22-23.

Finally, CSXT assails TPI's reliance on CSXT's own MOW staffing data produced during discovery to determine appropriate TPIRR staffing levels, claiming the data contained errors. CSXT Reply at III-D-183 to -184. But CSXT then uses this very same data it claims is too erroneous for TPI's use to justify its own proposed staffing at a higher level, ignoring the different job-level needs of the TPIRR. Even in reply, CSXT has not attempted to correct the acknowledged flaws in its own data. The Board should reject CSXT's criticism of TPI's use of

³⁵ TPI Op. Ex. III-D-3 at 4; TPI Reb. Ex. III-D-2 at 14.

³⁶ TPI Op. Ex. III-D-3 at 3-4, 34-37 and Tables 2 through 8.

CSXT data, because TPI reasonably relied on the data.³⁷ TPI Reb. Ex. III-D-2 at 5-6.

E. CSXT's method for calculating ad valorem taxes is fundamentally flawed.

CSXT's approach to calculating the TPIRR's ad-valorem taxes contains multiple flaws. First, CSXT compared its own 2011 Net Revenue calculation from its Annual Report Form R-1, which it prepared using accrual accounting methodologies, to an estimate of the alleged TPIRR Net Revenue using some undocumented hybrid of accrual-and tax-accounting methodologies. Because CSXT did not account for any accrued revenues or expenses in its TPIRR Net Revenue estimate, its comparison of that estimate to actual CSXT Net Revenues calculated under accrual accounting is invalid. TPI Reb. at III-D-63 to -65. Second, CSXT uses Net Revenues (revenues less operating expenses) to allocate taxes that are calculated based on Net Railway Operating Income (revenues less operating expenses and tax expenses). Third, CSXT's approach is intuitively suspect because CSXT claims that this proceeding should be dismissed since the TPIRR is not viable, but when ad-valorem taxes are calculated, CSXT claims that the TPIRR is a highly profitable entity that would necessarily pay higher ad-valorem taxes than does the real-world CSXT. *Id.* at III-D-66. Finally, the Board previously has rejected railroad attempts to use unit value and operating income approaches to calculate ad-valorem taxes because other factors also are taken into account during a tax assessment. *See, AEPCO*, slip op. at 79-80.

VI. TPI's ROAD PROPERTY INVESTMENT IS REALISTIC, FEASIBLE, AND CONSISTENT WITH PRECEDENT.

CSXT imposes road-property investment costs upon the TPIRR that are \$10.5 billion, or more than 60%, greater than TPI has determined to be necessary. TPI Reb. at III-F-2. Much of that difference exists because CSXT has overbuilt the TPIRR network far beyond what its own

³⁷ *See, e.g., AEPCO*, slip op. at 103; *AEP Texas*, slip op. at 81, 83; *PSCo/Xcel I* at 674, 683.

RTC model requires. In addition, the following six cost categories account for the lion's share of the difference: land valuations (\$1.6 billion); roadbed construction (\$2.36 billion); track construction (\$1.76 billion); bridges (\$1.35 billion); and signals & communications (\$976 million). The balance is spread across buildings & facilities, public improvements, and the derivative mobilization, engineering, and contingency costs. Part III.F of TPI's Rebuttal provides complete details. In this Brief, TPI focuses upon the major components in the six most consequential categories identified above.

A. CSXT has overbuilt the TPIRR to inflate unit quantities.

The Board should use the network infrastructure in TPI's rebuttal or supplemental RTC simulation regardless of which party's operating plan the Board selects because TPI has shown that CSXT's supplemental train list, dwell times, and consists successfully ran to completion in TPI's RTC network and achieved the same level of service as CSXT's supplemental RTC simulation. TPI Supp. Reply at 47. TPI also reran CSXT's supplemental RTC simulation after removing 415 miles of track and generated identical cycle times. *Id.* at 48. This is the clearest possible evidence of CSXT's overbuilt system. Because CSXT's operating plan provides the same level of service on TPI's RTC network, the Board should use TPI's rebuttal quantities to determine road-property investment costs regardless of which operating plan it adopts.

B. CSXT has used deeply flawed methodologies to inflate land values.

Most of the difference between the TPI and CSXT land values is attributable to a flawed appraisal by CSXT. While CSXT accepted much of TPI's appraisal, it focused criticism on eight urban areas: Chicago, Atlanta, Baltimore, Chattanooga, Jacksonville, Nashville, Pittsburgh, and Washington, DC. TPI's appraisers present a thorough critique of the CSXT methodology and a

full defense of their own methodology in TPI Rebuttal Exhibit III-F-2.³⁸ TPI discusses the most egregious CSXT appraisal errors below, along with CSXT's imposition of a barrier to entry in the form of real estate acquisition costs.

First, CSXT ignored the elementary fact that, as parcel size decreases, the per-unit price increases. TPI Reb. at III-F-14. In other words, all other things being equal, smaller parcels tend to have a higher per-acre price than larger parcels. In developing a per-acre price for each land classification, CSXT used a straight average of all sales in its data, regardless of parcel size. Thus, CSXT improperly gave equal weight to all sales.

Second, for the three urban areas that it physically inspected, CSXT created multiple wildly varying valuations for the same land classification within each urban area. CSXT did not explain how it developed these different valuations, nor did CSXT explain how it decided which valuation to apply to which property segment. Furthermore, CSXT based these valuations on a small number of actual land sales in proximity to the TPIRR corridor. With no explanation of its valuation technique, the CSXT evidence on land value is unsupported. TPI Reb. at III-F-8 to -9.

Third, CSXT erred in its treatment of water crossings. TPI Reb. at III-F-15. Appraisal principles do not require valuation of navigable river crossings.³⁹ Yet, CSXT required that the TPIRR spend \$94.5 million to acquire the "land" over 14 water crossings. The vast majority of this land involves the Potomac River crossing between Washington, DC and Virginia.

Fourth, CSXT unfairly and inaccurately has denigrated the TPI valuation as a "desktop" appraisal. TPI performed on-the-ground inspections in 16 urban areas, covering 452 miles of the

³⁸ TPI's appraisers have presented a summary of their review of the CSXT appraisal and a comparison against TPI's appraisal at pages 14-39 of Rebuttal Exhibit III-F-2, followed by a more in-depth analysis.

³⁹ The Uniform Appraisal Standards for Federal Land Acquisition, page 55, The Appraisal Institute in cooperation with the U.S. Department of Justice.

TPIRR's right-of-way. Over 1,700 geo-coded photographs documented these on-the-ground inspections.⁴⁰ TPI enhanced its on-the-ground inspections through the use of online aerial photography and online tools such as Federal flood maps and county online mapping (GIS) systems. The Board recently recognized the value of using both computer tools and on-the-ground inspections to create the most accurate land classifications.⁴¹ In contrast, CSXT provided no photographic evidence of its inspections or resulting land use designations. TPI's use of aerial imagery and other software tools makes its appraisal more accurate. TPI Reb. at III-F-4 to -6.

Finally, the Board should reject CSXT's imposition of over \$104 million in real estate acquisition costs. Although the Board recently accepted such costs for the very first time in its *DuPont* and *SunBelt* decisions, it should not do so here because TPI has demonstrated that they are an impermissible barrier to entry. TPI Reb. at III-F-12 to -13. A barrier to entry is "[a] cost of producing which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry."⁴² Board precedent similarly recognizes that "a defendant railroad is not entitled to earn a return on investments it did not incur, but it can earn a reasonable return on the current replacement costs of investments it made."⁴³ CSXT has not demonstrated that it incurred any such costs to acquire the same right-of-way that the TPIRR would occupy. Even if CSXT would incur real estate acquisition costs if it entered the market today, that is irrelevant to

⁴⁰ TPI Op. Ex. III-F-2 at 19-22. Photos are found in TPI's Opening Workpapers, in the Part III-F-1 folder titled "TPI photos".

⁴¹ *SunBelt*, slip op. at 99.

⁴² Stiegler, George J., *Barriers to Entry, Economics of Scale and Firm Size, in The Organization of Industry* 67-70 (Univ. of Chicago Press 1968).

⁴³ *Tex. Mun. Power Agency v. The Burlington Northern & Santa Fe Ry.*, STB Docket No. 42056, slip op. at 23 (served Sept. 27, 2004).

the question of whether entry barriers exist.⁴⁴ Consequently, if the Board were to include real estate acquisition costs in the SAC analysis in the absence of any evidence that CSXT incurred such costs to acquire the TPIRR land, that would be a barrier to entry.

C. CSXT’s roadbed preparation costs do not reflect a least-cost SARR and they are contrary to precedent.

1. The Trestle Hollow Project is superior to the Means Handbook for the earthwork unit costs of a least-cost, optimally-efficient new entrant.

Major differences impacting road-property investment costs in this case are construction unit costs, particularly those for common earthwork, clearing and grubbing, and fine grading. TPI has used actual costs from the real-world Trestle Hollow project in Tennessee for each of these components, which is more representative of the costs that the TPIRR would incur as a least-cost alternative. CSXT, instead, has relied upon the Means Handbook, which the Board has used in prior SAC cases in the absence of actual real-world construction costs. TPI recognizes that the Board recently expressed a preference for Means costs over Trestle Hollow costs in the *DuPont* and *SunBelt* decisions. But TPI contends that Means will always overstate the costs of a least-cost, optimally efficient new entrant because it reflects only average costs of many projects of much smaller size, scope, and scale.

Construction of the TPIRR would be a project that is many times larger than any rail construction project in history, with enormous economies of scope and scale. Because the TPIRR is new construction, it also would be less difficult than most current rail-construction projects, which occur under traffic and thus must accommodate existing train operations in the

⁴⁴ *Coal Trading*, 6 I.C.C.2d at 413. *See also, West Texas*, 1 S.T.B. at 671 (rejecting land assemblage factor except to the extent incurred by incumbent), 672 (rejecting grade crossing expense when not incurred by incumbent), 672-73 (“the costs of needed permits, licenses and environmental compliance also must be considered as a barrier when that cost was not incurred by the incumbent.”).

construction zone. In addition, Means costs are based on an average of costs for projects of all types and sizes from around the country and assume a unionized workforce, whereas the TPIRR would be larger than any project in Means and have a non-union workforce. Consequently, Means unit costs always will overstate the earthwork costs that would be incurred by a least-cost SARR. The Means Handbook confirms that “[t]he size, scope of work, and type of construction project will have a significant impact on cost. Economies of scale can reduce costs for large projects.”⁴⁵ Obviously, construction of the TPIRR would constitute a larger project than any project included in the Means Handbook, resulting in unit costs that are less than the lowest cost Means project and, without a doubt, lower than the average costs from the Means Handbook.⁴⁶

In lieu of Means costs for common earthwork, TPI relied upon real-world earthwork costs from the Trestle Hollow Project. TPI Op. at III-F-10 to -16. Unlike Means’s national average unit costs, the Trestle Hollow Project occurred in an area of the country that is in the midst of the TPIRR. Moreover, Trestle Hollow involved many difficult elements that ensure its earthwork costs are not too low for the TPIRR, including hilly terrain that was heavily wooded.⁴⁷ Also, the right-of-way not only involved curvature, but also elevation change. In other words, Trestle Hollow was not a prototypically simple rail construction project (flat, straight, with no vegetation). TPI Reb. at III-F-19 to -25. Although the Trestle Hollow project is smaller in size and scope than the TPIRR, that fact should reassure the Board that the Trestle Hollow earthwork costs are conservatively overstated because a larger project, like the TPIRR, could achieve more

⁴⁵ TPI Reb. workpaper “Means Handbook project size.pdf.”

⁴⁶ Breaking the construction of the TPIRR into 950 grading packages (TPI Op. at III-F-65) does not diminish the size and scope of the TPIRR’s construction. These are not 950 separate projects handled by 950 separate contractors; they are simply sections of a larger project handled by one or a few contractors.

⁴⁷ See, e.g., TPI Opening photographs in workpaper folder “Trestle Hollow Pictures.”

savings through its greater economies of scope and scale.

A SARR is entitled to utilize the lowest feasible costs, and the Trestle Hollow Project costs are, by definition, feasible because they represent a recent real-world construction project.⁴⁸ Therefore, Means cannot possibly be the best evidence when real-world projects, such as Trestle Hollow, demonstrate lower earthwork costs, even without the benefit of the SARR's economies of scale. Accordingly, the TPIRR's costs must be lower than those specified in Means, and also lower than even the Trestle Hollow Project costs because of the TPIRR's larger scale.

In *DuPont*, the Board imposed an impossible standard upon complainants such as TPI, which must develop enormous SARRs to achieve the scale economies needed to bring a SAC case, by requiring them to identify multiple real-world rail-construction projects at locations on or near the SARR to avoid the higher Means costs.⁴⁹ There are no real-world projects of comparable scope and most smaller real-world projects, such as those provided by CSXT in discovery, are not representative of the SARR because the construction is performed under traffic and is not remotely akin to new rail construction. TPI Op. at III-F-14; TPI Reb. at III-F-25 to -28. To the extent new construction projects like Trestle Hollow exist, they are few in number and information on them rarely is publically available. Thus, by relegating complainants solely to the use of Means, the Board has required them to use costs that undoubtedly will overstate the cost truly available to a least-cost, optimally efficient new entrant.

TPI's use of Trestle Hollow to determine the unit cost for common earthwork in adverse terrain also was reasonable. CSXT's claim that there was nothing adverse about the Trestle Hollow terrain miscomprehends TPI's evidence. TPI assumed that Trestle Hollow was standard

⁴⁸ See, e.g., *AEPCO*, slip op. at 46 (“AEPCO correctly asserts that it may choose the lowest feasible cost for each category of expense”); *FMC*, 4 S.T.B. at 800.

⁴⁹ *DuPont*, slip op. at 149.

(non-adverse) excavation, and then escalated the Trestle Hollow unit cost by the adverse terrain factor derived from Means. TPI Op. at III-F-16. In other words, TPI determined the inherent relationship in Means costs between common earthwork and common earthwork in adverse terrain, and applied that relationship to increase the Trestle Hollow unit costs to a level appropriate for adverse terrain. CSXT's opposition to TPI's adverse terrain unit cost thus is based on a flawed interpretation of what TPI did. TPI Reb. at III-F-35 to -36.

TPI also utilized the Trestle Hollow Project for clearing and grubbing costs, which was reasonable given the heavily wooded, uneven terrain involved in that construction project.⁵⁰ This was quite conservative because TPI applied its unit cost per acre for clearing and grubbing to all of the TPIRR acres of clearing despite the fact that nearly 70 percent of the TPIRR's acres would only require clearing, but not grubbing. TPI Reb. at III-F-29 to -30.

CSXT also rejects TPI's reliance upon Trestle Hollow for fine grading, claiming that it is unclear whether the Trestle Hollow Project entailed fine grading. Therefore, CSXT adds separate fine-grading costs to the TPIRR. CSXT Reply at III-F-49 n.92. But TPI's workpapers show that fine grading was included in the Trestle Hollow Project costs TPI used, and therefore, these additional costs are unnecessary and would result in a double-count.⁵¹ TPI Reb. at III-F-41.

TPI used the Trestle Hollow Project unit costs because they are a supportable, feasible, and superior real-world substitute for the Means Handbook costs for common earthwork. The Trestle Hollow unit costs reflect actual earthwork costs from a contractor's bid in the same way that actual costs were substituted for Means Handbook costs in *Western Fuels I* and *AEPCO*. As shown in both of those cases and this proceeding, actual bids from contractors for new rail

⁵⁰ See, e.g., TPI Opening photographs in workpaper folder "Trestle Hollow Pictures."

⁵¹ TPI Op. workpaper "Trestle Hollow Specifications.pdf," page 164, Sections 3.5.15 and 3.5.16.

construction are lower than Means Handbook average costs comprised mostly of projects that are different in multiple critical factors (e.g., union labor, under traffic, not new construction).

Because of this fact, the Board should use TPI's earthwork cost figures.

2. CSXT inflates costs by ignoring precedent on waste excavation, swell, and slag.

CSXT has inflated the TPIRR's roadbed preparation costs by ignoring Board precedent on waste excavation, swell and slag.

First, CSXT has deviated from precedent by calculating separate waste quantities for rural and non-rural areas and applying a much higher cost per acre to the non-rural waste quantities. But CSXT bases this deviation on the false assumption that CSXT can determine where waste quantities will occur. Because that assumption is unrealistic, prior SAC cases have used the rural cost per acre. Most recently, in *DuPont* and *SunBelt*, the Board rejected the defendant's attempt to apply an average of the SARR's rural and non-rural land cost, which the defendant based upon an assumption that waste quantities would be generated evenly along the SARR right-of-way.⁵² CSXT's evidence is a different spin on the same concept that should be rejected for the same reasons. TPI Reb. at III-F-37 to -41.

Second, CSXT insists upon including a swell factor for hauling earthwork excavation quantities, even though in the *DuPont* and *SunBelt* decisions, the Board rejected that approach.⁵³ Without a definitive showing of what the cubic yards reported in the ICC Engineering Reports represent, the need for any swell factor adjustment is purely speculative. CSXT has not given the Board any basis to reach a different conclusion in this case. TPI Reb. at III-F-42 to -43.

⁵² *DuPont*, slip op. at 170; *SunBelt*, slip op. at 119.

⁵³ *DuPont*, slip op. at 184-85; *SunBelt*, slip op. at 116. *See also*, *AEPCO*, slip op. at 92.

Third, CSXT attempts to designate slag as “other borrow,” in violation of precedent.⁵⁴ CSXT Reply at III-F-35-36. Moreover, CSXT’s rationale relies on a faulty understanding of history. TPI Reb. at III-F-30-32.

D. CSXT artificially inflates track construction costs.

Over half of the \$1.76 billion difference in track-construction costs is attributable to ballast and ties. The balance is spread across multiple other items, such as rail, field welds, switches, and rail lubricators, due to various departures from precedent, double-counts, and failures to examine TPI’s supporting documents. TPI Reb. at III-F-66 to -72.

CSXT has taken two steps that substantially inflate the TPIRR’s ballast costs. First, CSXT determined the cost of ballast based solely upon prices from seven of the fourteen quarries that it provided in discovery, whereas TPI averaged the price of all fourteen quarries because they are representative of the ballast market. Because the TPIRR must obtain its ballast from quarries that other railroads served, it would have access to many more suppliers than just the seven quarries that CSXT uses. The Board accepted TPI’s methodology in *DuPont*, slip op. at 191. TPI Reb. at III-F-56 to -57. Second, CSXT improperly weighted the various ballast suppliers by assigning far-off quarries to certain railheads, ignoring nearby or lower-cost quarries. *Id.* at III-F-58 to -59. The excessive amount of CSXT’s ballast unit cost is evident when compared against the unit costs in the recent *DuPont* case in which the SARR traversed sixteen of the same states as the TPIRR.⁵⁵ *Id.* For ballast transportation, CSXT provided inconsistent arguments such that it is impossible to determine exactly what it is proposing. CSXT Reply at III-F-80 to -82. CSXT also misreads the Board’s *AEPCO* precedent. TPI Reb. at III-F-60 to -62.

⁵⁴ *SunBelt*, slip op. at 111.

⁵⁵ See Reply Evidence of Norfolk Southern Railway Company, Docket 42125, at p. III-F-123 (filed Nov. 30, 2012) (Public Version). See also TPI Reb. workpaper “DuPont ballast cost.pdf.”

On the subject of sub-ballast, CSXT's vendor quotations are overstated compared to the real-world project costs TPI offered from the Trestle Hollow project. Even if the Board rejects TPI's Trestle Hollow evidence for common excavation, there is no rational basis to also reject those costs for sub-ballast, because the task of supplying and placing sub-ballast is not dependent upon the size and location of the project. *Id.* at III-F-62 to -64.

With respect to ties, TPI shows that its unit cost is accurate based on cost information CSXT provided in discovery. *Id.* at III-F- 64 to 65.

E. CSXT has overstated the TPIRR's bridge expenses.

CSXT has overstated bridge expenses for the TPIRR in multiple ways. For example, CSXT improperly applied a location factor adjustment to unit costs even though TPI developed unit costs from projects in the TPIRR region. TPI Reb. at III-F-74 to -75. CSXT also inaccurately claims that TPI's superstructure for Type II bridges is insufficient. *Id.* at III-F-75 to -76. In addition, CSXT improperly adjusts TPI's pier heights for moveable bridges based upon information that TPI requested in discovery, but that CSXT refused to provide on grounds that it would require a special study.⁵⁶ *Id.* at III-F-89. The most significant overstatement, however, is the result of CSXT's rejection of Truman-Hobbs Act funding for moveable bridges, which creates an impermissible barrier to entry. Although the Board rejected a similar argument in *DuPont*, TPI has presented additional grounds for the Board to revisit that conclusion.

In *DuPont*, slip op. at 223, the Board was too broad in its imposition of a blanket ban on the use of Truman-Hobbs funding in SAC cases for constructing new bridges on grounds that the funding is intended only to replace existing bridges. If CSXT received Truman-Hobbs funding to

⁵⁶ See *SunBelt*, slip op. at 125 (a defendant "cannot restrict the scope of its discovery responses and then use requested information for the first time on reply after failing to produce it in discovery.").

construct the bridge, and if the TPIRR must construct the same bridge without the benefit of the same funding source, then a barrier to entry has been created because “a SARR is not required to incur costs for construction activities that the defendant railroad has never incurred.”⁵⁷ TPI Reb. at III-F-81 to -83.

TPI has demonstrated that there are innumerable sources of public funding for bridges throughout the TPIRR’s service territory, for which Truman-Hobbs is merely a proxy. *Id.* at III-F-85 to -89. In several instances, TPI has been able to demonstrate that CSXT itself benefitted from these funds to construct the same bridges as the TPIRR. *Id.* at III-F-84 to -86. Therefore, to the extent that TPI has in fact demonstrated that CSXT received public funding for any of the TPIRR’s bridges, the Board should assume that the TPIRR also would receive such funding.

F. The TPIRR can and would install PTC in 2010.

Most of the difference in signals and communications costs between TPI and CSXT is in their treatment of PTC.⁵⁸ Whereas TPI has assumed that the TPIRR would construct a fully-functional and RSIA-compliant PTC system in 2010, CSXT assumes that the TPIRR must first construct a lesser, non-compliant PTC system and then upgrade that system by the end of 2015 to be RSIA-compliant.⁵⁹ Furthermore, although CSXT’s proposed non-compliant PTC system

⁵⁷ *PSCo/Xcel I*, 7 S.T.B. at 690.

⁵⁸ Recent legislative developments call into question whether PTC costs should be an issue at all in this proceeding. Congress recently extended the PTC implementation deadline until December 31, 2018, with a process for FRA to extend the deadline through the end of 2020. Moreover, a recent GAO report states that CSXT itself estimates a PTC completion date of December 2020, which is beyond the DCF period modeled in this case. U.S. Gov’t Accountability Office, GAO-15-739, Positive Train Control: Additional Oversight Needed as Most Railroads Do Not Expect to Meet 2015 Implementation Deadline 41 (2015). Although TPI is not seeking to restate its evidence to reflect these developments, the Board should take judicial notice of these facts in determining the propriety of imposing two sets of signaling costs upon the TPIRR.

⁵⁹ A similar situation would exist if the government mandated that CSXT replace an older and lower clearance bridge with a new elevated bridge during the DCF period in the SAC analysis.

for the TPIRR in 2010 would incur all of the same costs that CSXT itself will incur for an RSIA-compliant system in 2015, CSXT arbitrarily has imposed an additional 25-percent upgrade charge upon the TPIRR to obtain the same PTC system. CSXT's proposal constitutes a barrier to entry in violation of SAC principles.

Contestable-market theory requires that the advantage an incumbent obtains from having entered the market first and through a piecemeal process of expansion over an extended period of time cannot be used to create a barrier to entry.⁶⁰ As a result of its piecemeal entry, CSXT has had many decades to recover, in whole or in major part, the costs associated with its existing signaling system.⁶¹ The TPIRR, in contrast, would have less than 5 years to do so before that system would become obsolete, all the while incurring costs for a replacement PTC system. Since requiring the TPIRR to invest in two signaling systems over a very short 5-year period would impose a risk upon its investors that CSXT's investors did not face, that requirement would be an impermissible barrier to entry under contestable-market theory.⁶² Thus, the Board should permit TPI to implement a fully-interoperable PTC system in 2010 to eliminate the PTC mandate as a barrier to entry under contestable-market theory. TPI Reb. at III-F-100 to -104.

Under CSXT's logic, the SARR would be required to first build the older bridge and then replace it with the newer bridge.

⁶⁰ See *Coal Trading* at 413-14 (a market is not contestable when the costs faced by the incumbent and the SARR are different).

⁶¹ Cf. *West Texas Utilities* at 671-72. CTC systems were first introduced in the late 1920's and were in standard use by most railroads by the 1940s. By the 1970's and 1980's electromechanical control and display systems were replaced with computer operated displays.

⁶² See *PPL Montana, LLC v. Burlington N. & Santa Fe Ry.*, 5 S.T.B. 1105, 1111-12 (2001) (holding that "a SARR should not be assumed to bear costs that are not faced by the defendant railroad [including] . . . costs associated with risks not faced by the defendant railroad's investors."); *Wisconsin P&L*, at 984 ("As we stated in *FMC* (at 846), we do not allow an existing railroad to charge captive shippers a rate designed to compensate for risks that the incumbent carrier's investors do not face.").

The Board also should reject CSXT's misleading argument that it was not technologically feasible for the TPIRR to install PTC in 2010. The technology existed, but not the demand to deploy it on a large scale. The TPIRR would create that demand just as the RSIA-mandate has done so in the real world.

In *DuPont* and *SunBelt*, the Board permitted those SARRs to implement PTC at the start of operations but required them to upgrade their PTC systems by 2015 to be interoperable with other railroads. If the Board adheres to that approach in this case despite TPI's barrier to entry argument, it still should reject CSXT's 25-percent upgrade charge as a barrier to entry because it would impose upon the TPIRR a greater cost than CSXT itself will incur to implement an RSIA-compliant PTC system. TPI Reb. at III-F-105 to -106.

The Board should reject CSXT's inclusion of significant costs for the TPIRR to purchase locomotive equipment for other railroads. CSXT Reply at III-F-163. The predicate for this argument is the same "two PTC system" argument that creates the barrier to entry discussed above. Furthermore, CSXT's assumption that the TPIRR would pay to equip locomotives for other real-world railroads to meet RSIA standards would cause the TPIRR to subsidize its competitors. Such a result is unrealistic because those railroads also would need to purchase their own locomotive equipment to comply with the PTC mandate. TPI Reb. at III-F-112 to -115.

Finally, CSXT imposes multiple additional charges from its own PTC implementation costs that the TPIRR would not incur because it is implementing PTC through new construction as opposed to overlaying PTC on top of an existing CTC system. This includes PTC-specific back-office costs, PTC communications costs, and PTC testing costs that are separate and in addition to the TPIRR's overall back-office, communications, and testing costs already associated with the TPIRR as a new start-up. TPI Reb. at III-F-108 to -109, -117 to -118, -120.

VII. TPI HAS PERFORMED THE DCF AND MMM ANALYSES CONSISTENT WITH BOARD PRECEDENT AND REAL-WORLD PRACTICE.

This Part VII addresses five major areas of difference between CSXT and TPI in their performance of the DCF and MMM analyses: equity flotation costs, the TPIRR's debt structure, the terminal value adjustment, bonus depreciation, and inflation indices. Each of these matters has been the subject of intense debate in both the *DuPont* and *SunBelt* decisions, including pending petitions for reconsideration.

A. CSXT improperly adds equity flotation costs to the TPIRR's cost of capital.

Equity flotation costs are not an inevitable cost of raising large amounts of capital and CSXT has not demonstrated that such costs are essential to the TPIRR or carried its burden to demonstrate an appropriate flotation cost for the TPIRR. The Board's position on equity flotation costs is in a state of flux. At the time that TPI filed its Opening Evidence, the Board consistently had rejected equity flotation costs in every decision where it was in dispute. In the subsequent *DuPont* and *SunBelt* decisions, however, the Board held that equity flotation costs may be included in the SAC analysis but nevertheless concluded that the defendants had not carried their burden to demonstrate an appropriate flotation cost for those cases.⁶³ Thus, the Board has yet to determine what is an appropriate flotation cost for a SARR.

TPI urges the Board to reconsider its recent determinations that equity flotation costs may be included in the SAC analysis. Those railroads that have argued for equity flotation costs in recent cases have not demonstrated that they incurred such costs, which renders the imposition of equity flotation costs upon the SARR a barrier to entry.⁶⁴ But even if this was not a barrier to

⁶³ *DuPont*, slip op. at 273-75; *SunBelt*, slip op. at 183-85.

⁶⁴ Those railroads have argued, without any proof, that common sense dictates today's railroads and their predecessors must have incurred substantial expenses for lawyers and investment

entry, the Board still should not impose flotation costs in this case because CSXT has not carried its burden to demonstrate an appropriate flotation cost that warrants a deviation from Board precedent.⁶⁵ The contradictions in CSXT's evidence are so pervasive and incisive that they forcefully disprove not only the rationale behind the amount proposed, but also CSXT's critique of the Board's *DuPont* and *SunBelt* decisions.

As an initial matter, CSXT's flotation fee rests on the flawed assumption that the TPIRR must use a high-cost IPO to raise equity funds.⁶⁶ But the TPIRR could sell its equity through a private placement arrangement without incurring the substantial costs of an IPO. TPI Reb. at III-G-4 to -5. The process is less complex than that for a public sale like an IPO because, in many cases, registration statements and other regulatory actions are not required, which allows the issuing companies to avoid the associated time, expense, and disclosure requirements. Berkshire Hathaway's acquisition of BNSF shows that sophisticated investors are available to provide sufficient capital to build and operate a railroad as large as the TPIRR, without the need to raise

bankers in raising the large amounts of capital required to build their systems. *See* Docket No. NOR 42125, "Norfolk Southern Railway Company's Reply to E.I. Du Pont De Nemours and Company's Petition for Reconsideration," pp. 47-48 (filed Dec. 12, 2014). Such a claim defies historical facts. The predecessors to today's railroads were founded primarily in the 19th century before the enactment of state blue sky securities laws (which were first enacted in the early 20th century), and well before the establishment of the Securities and Exchange Commission in 1934. Prior to these laws, it was a simple matter for companies to issue common stock without the need for teams of lawyers and investment bankers.

⁶⁵ *See PSCO/Xcel I*, 7 S.T.B. at 619-20 (although the Board agreed with the complainant that the SAC analysis should include productivity in the DCF model, it nevertheless rejected the complainant's proposed methodology even though the defendant refused to offer its own methodology when expressly requested by the Board).

⁶⁶ CSXT Reply at III-G-2 (the flotation fee is "dependent on the size of the IPO gross proceeds raised").

equity capital through an IPO.⁶⁷

In an effort to counter the Board's reasoning in *DuPont* and *SunBelt*, CSXT asserts that the size of an equity flotation fee is "not reflective of either the risk profile . . . [or] the industry characteristics," but instead depends "on the size of the IPO gross proceeds raised," and the "gross spread is not dependent on industry or specific company characteristics but tends to follow the dollar amount of proceeds raised." CSXT Reply at III-G-2 to -3. CSXT is wrong on this point. Risk and the industry do matter, as various experts cited by TPI confirm. Moreover, CSXT's own evidence shows that factors other than size of the issuance affect the gross spread. TPI Reb. at III-G-6 to -13.

CSXT also relies upon the 1991 equity issuance of the Burlington Northern Railroad ("BN") in an attempt to justify its proposed 2.0 percent fee for the TPIRR. CSXT contends that the 3.9 percent fee BN incurred reflects the "middle of the range" of what the TPIRR would incur. CSXT Reply at III-G-6. The facts do not support such a contention. First, BN did not actually pay 3.9 percent as a fee for the issuance—BN only paid 3.0 percent because 0.9 percent represented the "cost" to BN of stock dilution. Even if the TPIRR used an IPO, there would be no pre-existing stock to dilute. Second, records of the Securities and Exchange Commission show that BN raised only \$345 million in its 1991 issuance. This figure is over 80 times less than the equity CSXT expects the TPIRR to raise. If, as CSXT asserts, "the larger the dollar amount of IPO proceeds raised, the lower the gross spread percentage,"⁶⁸ then 3.0 percent cannot be the "middle" of what the TPIRR would incur. Indeed, even 2.0 percent is far too high based on the BN experience. TPI Reb. at III-G-13 to -14.

⁶⁷ Another large railroad equity transaction was Fortress Investment Group's \$1.1 billion acquisition of RailAmerica in February 2007.

⁶⁸ CSXT Reply at III-G-3.

B. The TPIRR's debt capital structure is the same as real-world railroads.

TPI has set a target capital structure for the TPIRR and maintained it throughout the DCF model, as Board precedent requires. In contrast to prior SAC cases that structured the SARR's debt like a typical home mortgage, however, the TPIRR would behave more like a real-world railroad by making coupon payments on its debt consisting solely of fixed interest payments. The TPIRR would maintain a steady capital structure by reissuing debt as older debt is retired, just as real-world railroads do, which results in consistent interest payments as reflected in the DCF model. The Board and ICC have acknowledged that real-world railroads generally operate in this fashion.⁶⁹ Nevertheless, the Board recently rejected efforts to structure SARR debt in the manner of real-world railroad debt because a SARR is evaluated through a "regulatory lens" where scrutiny of the financial markets does not occur.⁷⁰ TPI has demonstrated, however, that the Board's rationale underlying those decisions is incorrect. TPI Reb. at III-H-2 to -8.

According to the Board in those recent decisions, because fixed coupon payments mean that a SARR is paying only interest on its debt and not repaying the principal, this would impede the object of the SAC test to determine a SARR's ability to pay the cost of constructing, maintaining, and operating its system.⁷¹ That is not correct, however, because the SARR's ability to repay the principal borrowed is accounted for in the levelized stream of capital recovery payments, not in the debt-amortization approach. This accounting occurs through the capital carrying charges included in the "Investment SAC" level of the DCF model, which ensure that a SARR is developing enough quarterly cash flows to pay back both the interest on the debt (as

⁶⁹ See, e.g., *DuPont*, slip op. at 281; *SunBelt*, slip op. at 191; *Nevada Power II* at 319.

⁷⁰ *DuPont*, slip op. at 279-282; *SunBelt*, slip op. at 189-191.

⁷¹ *DuPont*, slip op. at 281; *SunBelt*, slip op. at 191.

encompassed in the weighted-average cost of capital used as a discount factor) and the principal amount originally borrowed (as reflected in the investment costs and interest during construction costs). Thus, the repayment of principal is accounted for in the DCF model regardless of whether the Board uses a home-mortgage amortization approach or a coupon approach.

Moreover, there is no direct link between the 20-year mortgage-style payments and assets that make up the SARR initial investment. Because all SARR assets, except coal wharves, ties, and communications systems, have service lives longer than the assumed 20-year debt amortization, there is no correlation between asset lives and the principal payments in the debt amortization.⁷² Furthermore, the levelized capital carrying charges are, in part, a function of the interest charges included in the DCF analyses. Thus, there cannot be a mismatch between the interest charges and capital carrying charges because one is a function of the other.

CSXT also criticizes TPI's debt structure for ignoring future changes in interest rates because TPI uses the current interest rate during the analysis period. CSXT Reply at III-H-4. But this is not a flaw in TPI's approach because the Board's DCF model assumes the consistency of interest rates when calculating the interest tax shields associated with future asset replacements. Even CSXT used this assumption to calculate interest payments on future asset replacements.⁷³

In *DuPont*, slip op. at 281, the Board rejected a similar capital structure to TPI's based upon the belief that "it would erase the basic outlines of the SAC test," by impeding the determination of a SARR's ability to pay the cost of constructing, maintaining, and operating its system. Because TPI has demonstrated that the Board's belief is inaccurate, the Board should

⁷² The Board specifically rejected debt amortization over the life of the SARR assets in *AEP Texas*, slip op. at 107.

⁷³ See CSXT Reply workpaper "Exhibit III-H-1 Reply.xlsm," worksheet "Replacement Interest," cell D5.

accept TPI's debt structure for the TPIRR by adhering to its recognition of "the importance of allowing the SARR to use the same business strategies as the railroad industry to the maximum extent possible." *Id.* at 282.

C. The Board should correct a flaw in the terminal value calculation.

TPI has identified and corrected a flaw in the Board's terminal value calculation. TPI Op. at III-H-12 to -15. Specifically, the DCF model assumes that the SARR's capital structure will remain constant in perpetuity, but the model also assumes that after year 20, and until the first assets are replaced in the replacement level of the DCF model, the railroad has no debt and no tax-shielding interest payments. This creates an irreconcilable mismatch between the SARR's cost of capital and its cash flows, because the cost of capital assumes that the SARR is carrying debt, and its associated interest payments, but the cash flows reflect no benefits from the interest tax shields. After TPI filed its Opening Evidence but before CSXT's Reply, the Board acknowledged this flaw and corrected it, in the same manner advocated by TPI, in the *DuPont* and *SunBelt* decisions. CSXT nevertheless objects to this correction and urges the Board to reconsider these recent holdings.

CSXT invokes older precedent in an attempt to support its position, but CSXT's interpretation of *Coal Trading*, *McCarty Farms*, and *Major Issues* is incorrect. TPI Reb. at III-H-18 to -19. In *Coal Trading*, at 379-80, the ICC allowed the SARR's debt-equity mix to change over time as debt was paid off. Conversely, *McCarty Farms*, at 522 (n. 123), involved a constant capital structure. In *Major Issues*, the Board did not even address tax shielding interest payments or the SARR's debt-equity mix beyond year 20. Crucially, none of these decisions included a statement by the agency approving, let alone recognizing, the mismatch that TPI has identified. Moreover, the fact that an error has existed for several years is not a legitimate justification for

its continued existence.⁷⁴ An error is still an error, regardless of how long it has existed.

CSXT also asserts that the *DuPont* decision is erroneous for both conceptual and mathematical reasons. CSXT Reply at III-H-13 to -14. In support of its conceptual error claim, CSXT asserts that the terminal value correction creates inconsistent assumptions regarding amortization of debt incurred during the initial construction period and debt incurred in subsequent asset replacement. *Id.* at III-H-13. CSXT is wrong for two reasons. First, the different assumptions CSXT mentioned existed even prior to the terminal value correction the Board accepted in *DuPont*, not as a consequence of that correction. TPI Reb. at III-H-20. Second, CSXT ignores the fact that the debt the terminal value calculation reflects is there to perpetually replace future assets (as well as to account for other corporate needs as debt is used by real-world railroads). *Id.* at III-H-20 to -21. Therefore, CSXT is wrong to claim that there will be no amortization of debt for assets in subsequent asset replacement cycles.

CSXT's assertion of a mathematical error is similarly unfounded. CSXT asserts that the terminal value correction would result in overstating the interest the TPIRR would pay in the last ten years of the 20-year analysis period. CSXT Reply at III-H-14. In other words, the terminal value correction utilizes an average interest payment for all 20 years, and that average figure is higher than the actual interest payment in years 11 through 20. CSXT, however, ignores the fact that actual interest payments would be higher than the average in years 1 through 10. Hence, there is no mathematical error. TPI Reb. at III-H-21.

In lieu of TPI's terminal value correction, CSXT proposes that the Board recalculate the TPIRR's capital structure as debt is amortized. CSXT Reply at III-H-14. CSXT's position is

⁷⁴ See, e.g., *DuPont*, slip op. at 279 (“Even if . . . the Board and parties have consistently used 15-year asset lives for these accounts, we can and will change our practices if new and better evidence comes to light.”). See also *SunBelt*, slip op. at 189.

inconsistent with standard finance theory, which states that a firm's cost of equity should decrease as the debt percentage decreases. The inconsistency arises because CSXT's proposal does not involve changing the cost of equity and, consequently, the proposal cannot be adopted. TPI Reb. at III-H-22 to -23.

D. The TPIRR is entitled to bonus depreciation.

Consistent with Board precedent and contestable market theory, the Board must permit the TPIRR to take advantage of the "bonus" depreciation provisions Congress enacted in 2008 and 2009, and continued in 2010. TPI Reb. at III-H-9 to -16. CSXT invokes the same objections that the Board rejected in *DuPont* and *SunBelt*. Although CSXT acknowledges that the TPIRR is entitled to some bonus-depreciation benefit, it attempts to limit that benefit based upon the extent to which CSXT itself has benefited from those provisions. But that would impose an impermissible barrier to entry in violation of contestable-market theory.

CSXT attempts to turn contestable-market theory on its head by claiming the Board should restrict bonus depreciation because it places the TPIRR at an advantage relative to CSXT. The fact that the TPIRR might have an advantage relative to CSXT is a red-herring. By virtue of being a least-cost, optimally efficient new entrant, a SARR necessarily will have many advantages over the incumbent. If the objective of a SAC analysis were to establish parity between the defendant and the SARR, a SARR would be required to use the same production techniques that the defendant used to build the original rail lines a century ago, rather than more efficient modern techniques. TPI Reb. at III-H-15.

The Board accepted complainants' use of bonus depreciation in the *DuPont* and *SunBelt* decisions because, among other things, there are both disadvantages and advantages from the compressed construction schedule of the SARR, and it would be improper to bar the SARR from

the benefits while requiring it to endure the disadvantages.⁷⁵ Although CSXT questions what the disadvantages might be, CSXT Reply at III-H-7 to -8, TPI has identified many such disadvantages. TPI Reb. at III-H-11 to -12. In addition, CSXT and its predecessors have benefitted from a wide range of prior tax-benefit laws that are not available to the TPIRR. In other words, CSXT's argument cuts both ways.

E. CSXT impermissibly deviates from the Board's established indexing rule.

CSXT has improperly deviated from the Board's established rule regarding indexing of SARR operating expenses. CSXT Reply at III-G-8 to -10. In the *Major Issues* rulemaking, the Board determined that SARR operating expenses should be indexed using a hybrid RCAF index. *Major Issues*, slip op. at 39-47. CSXT's deviation from this prescribed hybrid RCAF index for projecting TPIRR operating expenses is improper because the index was adopted through notice-and-comment rulemaking and, therefore, the Board must abide by the rule it adopted.⁷⁶ The Board cannot deviate from the hybrid RCAF index without engaging in a further notice-and-comment rulemaking process.⁷⁷ TPI Reb. at III-G-18 to -19.

Beyond CSXT's improper deviation from *Major Issues*, there are several other problems with its approach. First, CSXT does not properly take into consideration productivity in the fuel costs of the TPIRR for years 2010 through 2013. TPI Reb. at III-G-19. The hybrid RCAF index includes a productivity component that takes into consideration railroad total factor productivity, including productivity associated with fuel consumption. CSXT disregards this productivity which leads to an overstatement in TPIRR fuel costs. Second, CSXT's attempt to develop a

⁷⁵ *DuPont* slip op. at 278; *SunBelt*, slip op. at 188.

⁷⁶ See, e.g., *U.S. International Trade Commission v. ASAT, Inc.*, 411 F.3d 245, 253 (D.C. Cir. 2005); *Steenholdt v. FAA*, 314 F.3d 633, 639 (D.C. Cir. 2003).

⁷⁷ See, e.g., *United States Telecom Association v. FCC*, 400 F.3d 29, 35 (D.C. Cir. 2005).

productivity-adjusted AII-LF is flawed because CSXT applies a productivity adjustment factor (“PAF”) with fuel to a cost index excluding fuel. One cannot simply combine the AII-LF with the RCAF PAF and expect to produce a meaningful index. *Id.* at III-G-20. Third, it would be unfair to allow CSXT to selectively update the record. *Id.* CSXT has chosen to update the fuel prices paid by the TPIRR because such a change is beneficial to CSXT, but CSXT has ignored other input prices that may have declined between 2010 and 2013. This sort of selective updating is improper and contrary to precedent.⁷⁸

VIII. CONCLUSION

For the foregoing reasons, the Board should order CSXT to establish and maintain rates for the issue movements that are no higher than those shown by TPI’s Rebuttal Evidence, or alternatively its Supplemental Evidence, for the period from July 1, 2010 through June 30, 2020, and to pay TPI reparations equal to the difference between the maximum prescribed rate levels and the freight charges TPI actually paid on all shipments from July 1, 2010 through the date of CSXT’s compliance with the Board’s order, together with compensatory interest.

Respectfully submitted,



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⁷⁸ See, e.g., *Western Fuels I*, slip op. at 6; *Western Fuels Assoc., Inc. v. BNSF Ry. Co.*, STB Docket No. 42088 (Sub-No.1), slip op. at 8 n.8 (served July 27, 2009); *FMC* at 729.

CERTIFICATE OF SERVICE

I hereby certify that this 14th day of December 2015, I served a copy of the Final Brief of Total Petrochemicals & Refining USA, Inc. upon Defendant via electronic mail and first class mail at the address below:

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