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TOTAL PETROCHEMICALS & REFINING USA, INC. **Complainant,**	)	
v.	)	**Docket No. NOR 42121**
CSX TRANSPORTATION, INC. **Defendant.**	)	

BRIEF OF CSX TRANSPORTATION, INC.

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SHORT FORMS FOR FREQUENTLY CITED CASES

The following short form case citations are used herein:

AEPCO 2011	*Arizona Electric Power Cooperative, Inc. v. Burlington Northern & Santa Fe Railroad Co. & Union Pacific Railroad Co.*, STB Docket No. 42113, (served Nov. 16, 2011)
AEP Texas	*AEP Texas North Co. v. BNSF Railway Co.*, STB Docket No. 41191, (Sub-No. 1) (served Sept. 10, 2007)
DuPont	*E.I. du Pont de Nemours & Co. v. Norfolk So. Ry. Co.*, STB Docket No. 42125 (decision with appendices served Mar. 24, 2014)
FMC	*FMC Wyoming Corp. v. Union Pacific Railroad Co.*, 4 S.T.B. 699 (2000)
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McCarty Farms	*McCarty Farms, Inc. v. Burlington Northern, Inc.*, 2 S.T.B. 460 (1997)
Otter Tail	*Otter Tail Power Co. v. BNSF Railway Co.*, STB Docket No. 42071 (served Jan. 27, 2006)
SunBelt	*SunBelt Chlor Alkali P'ship v. Norfolk So. Ry. Co.*, STB Docket No. 42130 (served June 18, 2014)
Supplemental Evidence	*Total Petrochemicals & Refining USA, Inc. v. CSX Transp., Inc., Order* STB Docket No. 42121 (served July 24, 2015)
Rate Regulation Reforms	*Rate Regulation Reforms*, STB Docket No. EP 715, (served July 25, 2012)
WFA I	*Western Fuels Ass'n & Basin Elec. Power Cooperative v. BNSF Railway Co.*, STB Docket No. 42088 (served Sept. 10, 2007)
WFA II	*Western Fuels Ass'n, Inc. v. BNSF Railway*, STB Docket No. 42088 (served Feb. 17, 2009)
Xcel	*Public Service Co. of Colorado d/b/a Xcel Energy v. Burlington Northern & Santa Fe Railway Co.*, 7 S.T.B. 589 (2004)

I. INTRODUCTION

The Board has developed a "well-defined set of rules and precedent to guide parties in developing Stand-Alone Cost evidence," rules that have been further clarified by the Board's recent decisions in *DuPont* and *SunBelt*. TPI Op. at I-5.[1] But Total Petrochemicals and Refining USA, Inc. ("TPI") has predicated its evidence on widespread disregard of these rules in an effort to lower the stand alone costs of its SARR to utterly unrealistic levels. Once again the Board is asked to accept an "operating plan" allegedly based on the defendant's operations that actually fails to replicate tens of thousands of trains used to transport the traffic whose revenues TPI claims for its SARR.[2] Once again the Board is asked to use "Trestle Hollow" earthwork costs in place of well-supported R.S. Means estimates; to allow a complainant to pay only 10% of the cost of constructing movable bridges; to accept maintenance of way and general and administrative staffing levels far below those accepted as necessary in prior cases; and to accept multiple other deviations from past decisions.[3] TPI has provided the Board with no good reason to reject any of these precedents, which flow from the basic economic principle that a complainant must account for all the operating and capital costs necessary to serve the traffic it

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[1] CSXT continues to contest the Board's adoption and application of the new Limit Price rule to determine its rate reasonableness jurisdiction in this case. CSXT incorporates by reference all the arguments it previously asserted regarding the market dominance test and the Limit Price rule, and it reserves all rights to assert those arguments and their consequences in any appeal of a Board decision in this matter. However, because those arguments previously have been addressed by the Board, CSXT will not repeat them here.

[2] *See E.I. du Pont de Nemours & Co. v. Norfolk So. Ry. Co.*, STB Docket No. 42125, at 38-39 (decision with appendices served Mar. 24, 2014) ("*DuPont*") (rejecting complainant's operating plan in part because of failure to include all necessary trains).

[3] *See DuPont* at 82-94, 102-20, 148-49, 223 (rejecting "Trestle Hollow" costs, 10% movable bridge cost share, and bulk of complainant's G&A and MOW staffing); *SunBelt Chlor Alkali P'ship v. Norfolk So. Ry. Co.*, STB Docket No. 42130, at 52-61, 72-87, 106-08, 142 (served June 18, 2014) ("*SunBelt*") (same).

selects for its SARR.[4] While this case presents many issues (and far too many to address in this brief),[5] the key to resolving nearly all of them is the fundamental rule that a SARR must account for all the costs that it reasonably would incur when serving its selected traffic. Applying that principle to the issues in this case leads to the unmistakable conclusion that the costs of constructing, operating, and maintaining the TPIRR far exceed its attributable revenues and that the challenged rates accordingly are reasonable under the SAC test.

II. THE BOARD SHOULD ADOPT CSXT'S OPERATING PLAN.

A. TPI'S "Scenario #1" Operating Plan Is Not Feasible.

TPI's "Scenario #1" operating plan does not account for all of the trains required to serve TPIRR's customers. TPI stubbornly refused to include in that plan more than 28,000 "industrial yard trains" and other local trains that, according to TPI's own evidence, operated on the TPIRR network during the Base Year. TPI's estimates of the TPIRR's locomotive and car fleet requirements are based on methodologies that CSXT has shown are fatally flawed. While TPI belatedly accepted the yard classification tracks posited by CSXT, it neither added receiving and departure ("R&D") tracks nor proffered any evidence (other than its RTC simulation) demonstrating that the TPIRR could handle 20% more Peak Year traffic than CSXT does today with far less R&D track capacity. Nor did TPI remedy its failure to account for the cost of building lead tracks and crossovers to connect the "working" tracks at TPIRR yards. These and other glaring deficiencies render TPI's operating plan incapable of meeting the needs of the TPIRR's selected traffic.

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[4] *See, e.g.*, *Public Service Co. of Colorado d/b/a Xcel Energy v. Burlington Northern & Santa Fe Railway Co.*, 7 S.T.B. 589, 610 (2004) ("*Xcel*") ("The operating plan must be able to meet the transportation needs of the traffic the SARR proposes to serve."); *Rate Regulation Reforms*, STB Docket No. EP 715, at 6 (served July 25, 2012) ("*Rate Regulation Reforms*") ("A Full-SAC analysis compares the total SAC costs incurred to serve the selected traffic against the total revenues the carrier is expected to earn from that traffic group.").

[5] Space does not permit CSXT to address here all of the new evidence and arguments TPI presented in Rebuttal. CSXT relies on its Reply Evidence for issues not addressed herein.

1. TPI's Scenario #1 Operating Plan Does Not Account For All Of The Train Service Required To Serve The Selected Traffic.

"An operating plan must provide full service to the selected traffic group, including the trains necessary to move local traffic between yards and shipment origins and destinations."[6] TPI's Opening Evidence failed to account for literally tens of thousands of "industrial yard trains" and other local trains that perform pick ups and set offs at customer facilities along the TPIRR network.[7] On Rebuttal, TPI added to its train list some (but not all) of the local trains identified by CSXT, but categorically rejected every one of the additional "industrial yard trains" that are necessary to provide complete service to TPIRR's selected traffic.[8] The *Supplemental Evidence Order* afforded TPI a third opportunity to properly account for "all historic trains that deliver and pick up SARR traffic at shipper locations."[9] Nevertheless, TPI takes the position that its so-called "Scenario #1"—which is based on the same incomplete train list as its Rebuttal Evidence—"provides a superior operating plan that includes all of the trains, including 'Y' trains and local trains that are necessary to provide complete transportation service to the customers of the TPIRR."[10] TPI's "Scenario #1" operating plan should be rejected for several reasons.

First, the central premise underlying TPI's operating evidence is that TPIRR's car classification and train service plans are the same as those utilized by CSXT in the Base Year:

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[6] *See Total Petrochemicals & Refining USA, Inc. v. CSX Transp., Inc.*, STB Docket No. 42121, at 6 (served July 24, 2015) ("*Supplemental Evidence Order*") (citing *DuPont* at 38).

[7] *See* CSXT Reply at III-C-15 to III-C-36.

[8] *See* TPI Reb. at III-C-38 to III-C-44, III-C-61 to III-C-74. *See also* TPI Supp. at III-C-4 ("in Rebuttal, TPI rejected CSXT's claim [regarding the need for additional industrial yard trains] in its entirety.")

[9] *Supplemental Evidence Order* at 7.

[10] TPI Supp. Op. at I-9.

> Because the TPIRR operates the same trains with the same consists as CSXT over the same routes and through the same yards in the same locations to serve the same customers as the real world CSXT, there is no need to create [a] new blocking plan[].[11]

Having made a methodological decision to "mirror" CSXT's real-world train and yard operations, TPI must include in its operating plan every CSXT Base Year train that participated in handling TPIRR's selected traffic, regardless of its nominal train symbol. TPI's failure to do so constitutes a failure to provide complete train service to TPIRR's selected traffic group.

In its "Scenario #2," TPI itself identified from the car event data 23,333 "industrial yard trains" that actually operated during the Base Year outside the yards replicated by TPIRR.[12] By definition, those trains— which provided service between yards on the TPIRR network and nearby customer facilities—are a necessary element of any train service plan based on CSXT's historical operations. CSXT's payroll data confirm that CSXT actually operated approximately 23,868 industrial yard trains to/from TPIRR yards during the Base Year.[13] Moreover, the number of industrial yard trains (23,333) identified by TPI in "Scenario #2" is nearly the same as the number of such trains (23,868) in CSXT's Supplemental train list.[14] The fact that the different methodologies employed by the parties identified approximately the same number of "industrial yard trains" is compelling evidence those trains are necessary to provide complete train service to TPIRR's selected traffic.

Nevertheless, TPI argues that its "Scenario #1" train list should be accepted because "[CSXT] cannot demonstrate that any of the historical trains that were dispatched handled any of

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[11] TPI Reb. at III-C-7 (emphasis added). *See also* TPI Op. at III-C-5 (TPIRR trains "essentially mirror the movement of the corresponding CSXT traffic").

[12] TPI Supp. Op. at III-C-13 to III-C-14. TPI identified 25,119 such industrial yard trains. However, TPI's train selection methodology mistakenly included 1,786 "Y" trains that did not, in fact, operate anywhere on-SARR. *See* CSXT Supp. Reply at 28-29.

[13] *See* CSXT Supp. Op. at 13-14.

[14] *See* CSXT Supp. Op. at 11-14.

the TPIRR traffic group."[15] As an initial matter, this assertion turns the burden of proof on its head—as the proponent of an operating plan based on CSXT's historical operations, it is TPI (not CSXT) that must demonstrate that its operating plan accounts for all of the trains that handled the selected traffic in the Base Year. Moreover, the notion that "industrial yard trains" that operated from TPIRR yards during the Base Year were not involved in transporting TPIRR traffic is nonsensical on its face, particularly where (as discussed below) TPI's selected traffic includes virtually 100% of the cars that moved to/from local industries on the TPIRR network.

Second, TPI's thesis that TPIRR would not need to operate as many "industrial yard trains" as CSXT because TPIRR (supposedly) would classify fewer cars than CSXT is conceptually invalid. As CSXT demonstrated, the number of required yard assignments—even for in-yard switching—is not directly proportional to the average number of cars that move through a yard. The workload of a yard crew consists of switching movements, and the number of switch movements that one crew can realistically perform each day is determined by a variety of operational factors that affect daily yard operations, not the number of cars in each block that is switched.[16] TPI itself posited that "because its operating plan runs the same trains with the same blocks through the same yards as the real world CSXT operated in the Base Year, TPI has adopted CSXT's actual blocking and train service plans during that time period."[17] In order to build the same blocks for the same trains as CSXT, TPIRR yard crews would have to perform the same number of yard switching movements as CSXT did in the Base Year.

In any event, the (supposed) difference between the number of cars classified by TPIRR and CSXT provides no support whatsoever for reducing the number of TPIRR "industrial yard

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[15] *See* TPI Supp. Reply at 25.

[16] *See* CSXT Supp. Reply at 4-6.

[17] *See* TPI Reb. at III-C-105 (emphasis added).

trains." Although the carload traffic selected by TPI represents, in the aggregate, 93% of CSXT's 2010 system-wide carload traffic, the vast majority of the traffic excluded by TPI consisted of cars that did not move on the TPIRR network. The traffic that TPI did select includes virtually 100% of the CSXT cars that moved to and from TPIRR-served customer facilities.[18] Therefore, TPIRR would be required to pick up and deliver the same number of merchandise cars as CSXT at almost every customer location. In order to do so, TPIRR would necessarily need to operate the same number of "industrial yard trains" as CSXT did during the Base Year.

Third, TPI's estimate of TPIRR's yard crew requirements is premised upon a level of productivity that TPIRR cannot achieve. Specifically, TPI based its yard assignment calculations on the assumption that TPIRR would enjoy the same level of productivity as CSXT did in 2013. However, the significant improvement in CSXT's yard productivity between 2010 and 2013 was made possible by a substantial investment in remote control locomotive technology at CSXT yards. As CSXT Opening Exhibit III-C-1 (Video at 2:00 to 2:10, 4:30 to 4:50, 6:22 to 7:30) illustrates, the ability to control yard locomotives remotely significantly enhances the productivity of yard crews by eliminating the need to step on and off locomotives frequently to align switches and to inspect hoses and connections while performing switch movements within the yard. TPI did not posit—much less account for the costs of—acquiring remote control technology and training TPIRR yard crews to perform remote control operations.[19] Absent such investment, TPIRR could not achieve the same level of yard productivity as CSXT did in 2013.[20]

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[18] See CSXT Supp. Reply at 6-8.

[19] Indeed, TPI did not even equip TPIRR flat switching yards or receiving and departure tracks at hump yards with power switches, which are necessary to conduct remote control operations. *See* TPI Op. at III-B-10.

[20] *See* CSXT Supp. Reply at 9-12.

Correction of this single flawed assumption alone increases TPIRR's yard crew requirements from the 409 per day posited by TPI to 487 per day (only 4% fewer than CSXT's real-world yard staffing of 506 crews per day).[21]

Fourth, TPI's yard staffing calculations are mathematically flawed. TPI's assertion that "TPIRR classifies 15 percent fewer cars at hump yards in 2010 than the real-world CSXT" (TPI Supp. Op. at III-C-9) is inconsistent with TPI's repeated statements elsewhere that TPIRR would classify 12,924 cars per day at its 11 hump yards.[22] Those 12,924 cars represent 94% of the 13,698 cars that CSXT classified at those yards during the Base Year. TPI does not explain (nor could it) how a 6% difference between the number of cars classified by CSXT and TPIRR at hump yards supports a 19.1% reduction in yard train assignments (from 506 to 409 per day) across all TPIRR yards.[23] Moreover, TPI's estimate of 12,924 car classifications per day at TPIRR hump yards is itself understated. As CSXT demonstrated, the computer program that TPI developed to count car events at TPIRR yards was not designed to count events involving cars forwarded in interchange, cars terminated, or cars handled for placement at industries.[24] Moreover, where the "Suffix" field in the CSXT car event data was missing or shown as "UNKNOWN," TPI's computer program simply disregarded the classification event altogether. TPI's failure to capture car events with an "UNKNOWN" Suffix alone resulted in an understatement of yard classification counts of at least ten percent.[25]

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[21] *See id.* at 12, Figure 1.

[22] *See* TPI Op. WP "TPIRR Yard Operations.xlsx," Column 15, Lines 2 through 12; TPI Reb. WP "TPIRR Yard Operations_Rebuttal.xlsx," Column 15, Lines 2 through 12; TPI Supp. WP "TPIRR Yard Operations_Rebuttal_Supplemental.xlsx," Column 15, Lines 2 through 12; TPI Reb. WP "Yard & Support Job Comparison_Supplemental.xlsx," Column 10, Lines 1 through 11.

[23] *See* CSXT Supp. Reply at 12-13.

[24] *See id.* at 13-14.

[25] *See* CSXT Supp. Reply at 14-16; CSXT Supp. Reply WP "Classification_Comparison.xlsx."

Finally, TPI's suggestion that the historical "industrial yard trains" that it identified in "Scenario #2" were already fully accounted for in its Rebuttal yard staffing evidence is not credible.[26] The 25,119 annual industrial "Y" trains identified in TPI's Supplemental Evidence represent an average of 69 industrial yard trains per day (25,119 ÷ 365 = 68.81). If the 409 daily yard assignments in TPI's Rebuttal Evidence included 69 "industrial yard trains," TPIRR would be left with only 340 in-yard assignments—100 fewer than CSXT employed in its real-world operations—to perform the required in-yard switching at all TPIRR yards.[27] TPI did not identify any inefficiencies in CSXT's real-world yard operations—to the contrary, TPI assumed that TPIRR would employ the very same car classification and blocking plan as CSXT. Nor did TPI proffer any evidence demonstrating how TPIRR could execute CSXT's real-world classification and blocking plan with 100 fewer crews every day.

TPI's "Scenario #1" also fails to account for 4,461 historical local trains that are needed to serve TPIRR's selected traffic. As CSXT's Supplemental Evidence demonstrates, the CSXT car event and train sheet data show that every one of those 4,461 trains operated on the TPIRR network during the Base Year.[28] TPI's assertion that CSXT did not prove that those trains actually handled TPIRR traffic is insufficient to satisfy TPI's evidentiary burden to show that its operating plan accounts for all required historical local trains.[29] Moreover, TPI's suggestion that local trains operating along the TPIRR network may have carried only non-selected traffic is ludicrous in light of TPI's selection of virtually 100% of the local traffic moving to and from TPIRR-served industries.

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[26] *See* TPI Supp. at III-C-17 to III-C-18.

[27] *See* CSXT Supp. Reply at 18-19 and Figure 2. As Figure 2 shows, the total number of yard assignments posited by TPI on Rebuttal is less than the number employed by CSXT to perform in-yard switching activities.

[28] *See* CSXT Supp. Reply at 19-24.

[29] *See* TPI Supp. Reply at 11-12.

In its *Supplemental Evidence Order*, the Board cautioned that "if we determine that the disputed local trains are necessary, we will not be able to accept TPI's operating plan regardless of whether it would otherwise be acceptable."[30] The record—including TPI's own "Scenario #2" evidence—demonstrates convincingly that the disputed "industrial yard trains" and other local trains that are missing from TPI's "Scenario #1" operating plan are needed for TPIRR to serve its customers with the "same trains" as CSXT. TPI's refusal to add those trains to its "Scenario #1" operating plan renders that plan infeasible.[31]

2. TPI's Operating Plan Does Not Account For The Yard Facilities And Staffing Required To Support The TPIRR's Train Service Plan.

In *SunBelt* (at 16), the Board cautioned that:

> [i]f a complainant adopts the incumbent railroad's car classification and blocking plan, and the complainant modifies or removes a facility, or reduces staffing from the incumbent's classification and blocking plan, it would need to establish that the SARR could still adequately serve the traffic group.

TPI has utterly failed to satisfy this requirement.

On Opening, TPI posited massive reductions in the classification tracks, R&D tracks, and other facilities at existing CSXT yards;—indeed, TPI excluded five CSXT yards altogether. CSXT Reply at III-C-55 to III-C-125. TPI also slashed the number of real world yard assignments and neglected to provide TPIRR with the support personnel that CSXT and other

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[30] *Id.* at 6.

[31] For the reasons discussed in this Final Brief, and in CST's evidentiary submissions, the Board should adopt CSXT's operating plan as the basis for decision in this case. If, however, the Board decides instead to adopt TPI's "Scenario #2," it should reject the adjustment made by TPI to its "Scenario #2" operating expenses to eliminate a supposed "double count" between the costs included in "Scenario #2" and in TPI's Rebuttal yard expense calculations. As CSXT demonstrated above, TPI's "Scenario #1" did not account for the cost of the 23,333 industrial yard trains that TPI added to its "Scenario #2" train list, so there was no "double count" in TPI's evidence.

railroads utilize to enhance the efficiency of their yard operations. *See* CSXT Reply at III-C-128 to III-C-34.

TPI's Rebuttal acknowledged many of those deficiencies. Even as it criticized CSXT's yard evidence as "gold-plated," TPI accepted *in toto* the classification tracks posited by CSXT (TPI Reb. at III-C-111 to III-C-15) and added the five yards that it omitted on Opening (*id.* at III-C-130). While TPI conceded that support personnel would be needed at TPIRR yards (*id.* at III-C-135 to III-C-136), it continued to exclude 40% of the support personnel that CSXT deploys in its real world operations. TPI's Rebuttal yard service plan remains fatally deficient with respect to (1) the number of R&D tracks at TPIRR hump yards; (2) the cost of lead tracks and crossovers required to connect "working" tracks within TPIRR's yards; and (3) the number of TPIRR yard crews and locomotives.

a. Receiving and Departure Tracks

TPI posits that TPIRR's hump yards would need only 107 R&D tracks with 239.88 total miles of capacity. The real world hump yards replicated by TPIRR have 273 R&D tracks with 329.77 total miles of capacity.[32] TPI does not explain how TPIRR could process 20% more Peak Year cars than CSXT does today with such truncated R&D track capacity. *Sunbelt* at 16.

TPI proffered no credible analysis to support its R&D track configuration. Rather, TPI's R&D track estimate was based solely on its RTC simulation.[33] As the Board has recognized, the RTC Model is not a yard sizing tool, and cannot reliably determine the track capacity needed to support yard operations.[34] The RTC Model analyzes train movements, not activities that occur within a railroad yard. TPI's suggestion that R&D track requirements can be measured simply

[32] *See* CSXT Reply at III-C-121, Figure III-C-17.

[33] *See* TPI Reb. at III-C-117 to III-C-120.

[34] *See SunBelt* at 16 (rejecting complainant's claim that RTC simulation confirmed yard track configuration, on grounds that "the RTC model does not model yard operations").

by programming trains to "dwell" on yard tracks ignores the impact of events occurring within the yard on R&D track utilization. The RTC Model has no ability to evaluate the time required for yard engines to transfer cars between R&D tracks and the classification area; the time required to align switches to permit such transfer moves; the impact of conflicting yard movements on a switch crew working an R&D track; the need for track capacity to move cuts of cars off a departure track to reach a bad-ordered car in an outbound train; random outages or locomotive failures within the yard; and light movements of locomotives from a receiving track to the locomotive servicing area (or from the servicing facility to a departure track).[35] Moreover, an RTC simulation does not add any "fluidity factor" in determining track requirements.

By contrast, CSXT's R&D track configuration was based upon a thorough and detailed analysis of the yard operations that the TPIRR would conduct on a typical day. CSXT witness Dirnberger's methodology was clearly explained and well-documented, and the results of his analysis are both realistic and fully consistent with the concept of a "least-cost, most efficient" carload railroad. *See* CSXT Reply at III-C-109 to III-C-125. TPI's criticisms of CSXT's R&D track analysis are superficial, unsupported, and contrary to precedent.

TPI's accusation that CSXT's R&D track estimate was "gold-plated" and "designed to burden the TPIRR with unnecessary infrastructure" (TPI Reb. at III-C-120) is nonsense. Both the number and total capacity of the R&D tracks posited by CSXT (150 tracks with 311.4 total miles of capacity) are lower than those that exist at CSXT's real world yards. *See* CSXT Reply at III-C-121, Figure III-C-17. Positing that TPIRR could handle 20% more traffic than CSXT does today with less R&D track capacity is hardly evidence of "gold-plating."

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[35] TPI blithely suggests that TPIRR could mitigate yard congestion and delays by deploying additional yard personnel. TPI Reb. at III-C-119 to III-C-120. However, TPI's operating plan does not provide any "spare" employees that could be utilized in that manner.

TPI asserts that it is unnecessary to apply any "fluidity factor" in designing the receiving and departure areas of a hump yard, because "trains are built and broken down sequentially" and "shuffling [of cars] is not a routine activity." TPI Reb. at III-C-121. These statements betray a lack of understanding of yard operations. Bad-ordered cars are often discovered during pre-departure train inspections and must be removed from outbound trains, sometimes after the train has been built. TPI's R&D track configuration does not provide any track space to hold blocks of cars pulled from an active departure track in order to access a bad-ordered car, or to accommodate locomotive movements between the receiving/departure areas and locomotive servicing facilities.[36] The importance of sufficient capacity to maintain fluidity applies to all areas of a busy hump yard.

TPI's claim that the 5.0 hour average time required to build trains at hump yards posited by witness Dirnberger is "unreliable" (TPI Reb. at III-C-122) is fatally undermined by the fact that TPI adopted the same 5.0 hour dwell time in its Rebuttal RTC Model (*see* TPI Reb. at III-C-9, III-C-160). Likewise, TPI's claim that CSXT's R&D track analysis should be rejected because the number of R&D tracks posited by witness Dirnberger does not match the number of R&D tracks that appear in CSXT's RTC simulation is meritless. TPI Reb. at III-C-120 to III-C-121, III-C-125 to III-C-126. The RTC Model is not a reliable tool for determining yard capacity requirements, and CSXT did not purport to utilize the Model for that purpose.

In short, CSXT's R&D track configuration is supported by credible evidence, while TPI's highly-truncated estimate is not. The Board should adopt CSXT's R&D track configuration.

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[36] TPI's complaint that the capacity provided by CSXT for light engine and yard switcher movements in the receiving and departure areas is unnecessary (TPI Reb. at III-C-122) is ironic, given that TPI failed to account for the cost of any lead tracks or crossovers to permit engines to navigate between tracks within TPIRR yards. *See* CSXT Reply at III-B-22.

b. Lead and Running Tracks

TPI's Opening yard diagrams depicted the crossovers and lead tracks necessary to connect the working tracks within TPIRR yards. However, TPI's engineering evidence did not account for the cost of constructing those tracks. *See* CSXT Reply at III-B-22. In order to remedy that glaring deficiency, CSXT included 172.79 miles of lead and running track in its Reply yard configuration. *Id.* On Rebuttal, TPI once again failed to include the cost of crossovers and lead tracks. As a result, based on TPI's evidence, each TPIRR yard track is an "island unto itself," and TPIRR is physically incapable of performing the described yard operations.

c. Yard Crew and Locomotive Assignments

TPI reduced TPIRR's yard staffing based upon its (inaccurate) calculation of the difference in the number of cars classified per TPIRR and CSXT crew.[37] As CSXT demonstrated above, TPI's rationale for reducing TPIRR's yard assignments (both in-yard and "industrial") is fatally flawed, and its yard crew and locomotive estimates should be rejected.

TPI's decision to "scal[e] the number of support jobs to reflect the actual cars classified" (TPI Reb. at III-C-135) is even more nonsensical. The tasks performed by yard support personnel—including aligning switches, protecting shove movements, and delivering crews or work orders to trains at their locations (so that they do not need to stop at the yard office)—have little to do with the number of cars moving through the yard on a given day.[38] If a support switchman aligns switches for an inbound train (eliminating the delay that would result if the train's conductor were required to step off the train to do so), it matters little whether the train contains 100 cars or only 93 cars. TPI did not proffer any persuasive rationale for adjusting TPIRR's yard support staffing based on the proportion of cars moving through TPIRR and

[37] TPI Reb. at III-C-10 to III-C-11, III-C-131 to III-C-135; TPI Supp. Op. at III-C-8 to III-C-10.
[38] *See* CSXT Reply Ex. III-C-1 (Video) at 6:24.

CSXT yards. The Board should adopt CSXT's yard crew and support personnel staffing for TPIRR, which are consistent with CSXT's real world operations.

3. Locomotive and Rail Car Requirements

While TPI purported to base its operating plan on CSXT's real world operations, including trains, train schedules and yard operations, it chose to ignore information produced in discovery regarding the dwell times experienced by CSXT trains, cars and locomotives. Instead, TPI applied a collection of unrealistic dwell times based upon the opinions of its experts and data reflecting the experience of railroads other than CSXT. TPI also unilaterally altered TPIRR's local train service schedule in a manner that is inconsistent with customer requirements. These methodological choices were transparently designed to understate TPIRR's locomotive and rail car requirements.

Locomotive Dwell Between Train Assignments. On Opening, TPI posited that TPIRR locomotives would dwell at intermediate yards for only three hours between train assignments. TPI proffered no evidentiary support whatsoever for that understated estimate—it appeared only in a calculation buried deep in TPI's workpapers. *See* CSXT Reply at III-D-9. TPI's three-hour locomotive dwell time is patently inconsistent with its assumption that TPIRR would operate the same trains on the same schedule as CSXT (and therefore experience the same dwell time between assignments as CSXT's locomotives). CSXT presented an analysis based upon TPI's own RTC simulation that matched locomotives arriving at a yard with departing outbound trains. *Id.* at III-D-8 to III-D-14. CSXT demonstrated that the average locomotive dwell—*i.e.*, the time required to remove locomotives from an inbound train, transfer them to the servicing area, fuel and service the locomotives, move the units to the departure yard, couple them to an outbound train, and perform the required pre-departure tests—was approximately nine hours.

TPI's criticisms of CSXT's locomotive dwell time analysis are meritless. TPI's claim that CSXT double-counted locomotive repositioning time (TPI Reb. at III-D-6) is incorrect. CSXT calculated locomotive repositioning time separately, and its yard dwell calculations do not include running time that repositioned locomotives spend in transit to the yard.[39] TPI's attempt to debunk CSXT's analysis by citing the average annual dwell time experienced by CSXT locomotives (*see* TPI Reb. at III-D-6 to III-D-7) is flawed because that average includes all CSXT locomotives, including those used on unit trains. Unit trains do not stop at intermediate yards as often or for as long as merchandise trains, so their locomotives incur far less yard dwell time than locomotives deployed in general freight service. CSXT's R-1 Schedule 755 shows that unit trains accounted for 25% of road train locomotive unit miles in 2010. By including unit train locomotives in its dwell time calculations, TPI significantly understated the dwell time experienced by locomotives deployed in general freight service. CSXT's estimate of locomotive dwell time between train assignments (nine hours) is the best evidence of record.

Car Dwell Time. TPI understated TPIRR's car requirements by applying an utterly unrealistic dwell time of only 15.9 hours for cars classified and blocked at TPIRR yards.[40] TPI's 15.9 hour dwell time is an amalgamation of the lowest quarterly dwell time experienced by any Class I railroad over a 15-quarter period. *See* TPI Reb. at III-C-21. TPI's car dwell time assumption should be rejected for three reasons.

First, TPI proffered no evidence whatsoever to explain how TPIRR crews could reduce CSXT's real world car dwell (24.3 hours) by 8.40 hours, or 35%. TPI did not identify any

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[39] *See* CSXT Reply at III-D-12. CSXT's distinct treatment of the separate components of time—dwell and repositioning—is further documented by CSXT Reply workpaper "Dwell-Calculation-Report Final.xlsx," Tabs "Process" and "C# program," which describes the process and includes the programming code that CSXT used to calculate dwell time.

[40] TPI Op. at III-D-8; TPI Op. WP "SARR Carloads By Shipment Type V42.07.01 02072014.xlsx."

inefficiencies in CSXT's yard operations, nor did it propose any new (or different) processes that would enable TPIRR to slash car dwell time so substantially. To the contrary, TPI adopted CSXT's real-world car classification and blocking plans.

Second, TPI's car dwell assumption is utterly inconsistent with its train service plan. TPI posits that TPIRR would operate the "same trains" as CSXT—and TPIRR trains operate on the same schedule as CSXT's real-world trains in TPI's RTC simulation.[41] Thus, even if TPIRR yard crews could magically process cars from receiving tracks through the classification bowl and place them on departure tracks 35% faster than CSXT does today, those cars would still "dwell" on the departure track until TPIRR's outbound trains departed—at exactly the same times as CSXT's real-world trains. In other words, because TPI proposed to operate the same trains in the same manner as CSXT, TPIRR cars would necessarily experience the same average dwell time at intermediate yards as CSXT cars do today.

Third, TPI's claim that TPIRR could process cars 35% faster than CSXT is flatly inconsistent with its assumption (in estimating TPIRR's yard crew requirements) that TPIRR crews would achieve the same level of productivity (cars classified per crew) as CSXT. In order to reduce car dwell time by 35%, TPIRR crews would necessarily have to be 35% more productive than CSXT's employees. TPI does not even claim (much less prove) that would be the case. Having made a conscious methodological decision to adopt CSXT's trains, train schedules, and car classification and blocking plan, TPI cannot credibly posit that TPIRR would experience average car dwell 35% shorter than CSXT's real world experience.

In estimating TPIRR's car requirements, CSXT conservatively applied the lowest quarterly car dwell (22.2 hours) that CSXT actually experienced in any quarter during the period

[41] *Compare* TPI Reb. WP "Peak Period Manifest Train RTC List Master_Transit Time_Mileage Analysis Rebuttal.xlsx," Tab "Manifest Train List," Columns R & S *with* CSXT Reply WP "CSXT Actual Intermediate Yard Dwell Times.xlsx," Tab "Data," Column "AT."

upon which TPI based its analysis. CSXT Reply at III-D-40 to III-D-41. Because TPIRR's train and yard service plans purportedly mirror CSXT's real-world operations, the most reliable predictor of TPIRR's average yard car dwell is CSXT's actual experience. The Board should adopt CSXT's car dwell time of 22.2 hours.

Train Dwell At Yards. One of the most egregious flaws in TPI's Opening Evidence was its failure to account for the time that trains would occupy tracks during intermediate stops at TPIRR yards. TPI disregarded the train-specific data produced in discovery regarding the dwell times actually experienced by the very same CSXT trains that the TPIRR purported to "mirror." By contrast, CSXT presented realistic train dwell times based upon that actual experience. *See* CSXT Reply at III-C-98 to III-C-118. On Rebuttal, TPI acknowledged that the "generic" train dwell times in its Opening Evidence were understated. TPI Reb. at III-C-9, III-C-116. While TPI complained that the train dwell times presented by CSXT were "unreliable," "confusing, inconsistent" and "absurdly long" (*id.* at III-C-122, III-C-125, III-C-129), it "accept[ed] and incorporate[ed] all of the dwell times CSXT input into its Reply RTC simulation for hump yard dwell times, flat yard dwell times, coal train dwell times and local train mainline dwell times." *Id.* at III-C-160 (emphasis added). Accordingly, the Board should adopt CSXT's dwell time analysis as the best evidence of the dwell times for trains arriving at, departing from and making intermediate stops at TPIRR yards.

Local Train Service Schedule. In calculating TPIRR's locomotive requirements, TPI simply divided the annual number of TPIRR local trains by 365—thereby assuming that every TPIRR local train would operate every day of the week. *See* CSXT Reply III-D-15 at III-D-16. In reality, the vast majority of CSXT local trains operate only five days per week—indeed, TPI acknowledged that "CSXT does operate only a small percentage of [local] trains in seven (7) day per week service." TPI Reb. at III-D-9. However, TPI took the position that "the TPIRR as a

least cost most efficient railroad chooses to provide seven-day per week local train service, thereby resulting in higher utilization of its locomotive fleet." *Id.* (emphasis added).

TPI's methodology for determining local train locomotive requirements must be rejected for two reasons. First, TPI's mathematical approach treats all local trains generically, without regard to the days on which, and locations from which, they operate. In essence, TPI's methodology treats 35 CSXT real-world local trains originating at seven different locations and operating five days per week as if they were 35 trains originating at five locations and operating seven days per week. Based on that approach, TPI incorrectly concludes that TPIRR would need only five locomotives (at five locations) to operate those 35 local trains, effectively leaving TPIRR without any locomotives at two other locations from which its local trains must originate.

Second, TPI's approach results in an operating plan that is inconsistent with customer requirements. CSXT's local train schedules are determined by the needs of its customers. If customers request pickups and setoffs five days per week, that is the service that CSXT provides. It is likely that many of the customer facilities to which TPI "chooses" to provide seven-day service do not themselves conduct business seven days per week. Empty cars placed for loading on Friday would not be loaded and available for pickup on Saturday or Sunday, rendering weekend service to the facility unnecessary. In such cases, the shipper would not want (or agree to pay rates reflecting) seven-day service. Operating every local train on a seven-day schedule regardless of customer requirements is the epitome of inefficiency and is not a practice that would be adopted by a least-cost, most efficient railroad. Moreover, TPI's unilateral modification to the frequency of local train service violates the basic principle that a SARR must tailor its operating plan to the needs of its selected traffic. *See, e.g., McCarty Farms, Inc. v. Burlington Northern, Inc.*, 2 S.T.B. 460, 476 (1997) ("*McCarty Farms*") (rejecting complainant's operating plan as infeasible where complainant assumed that traffic would move

in evenly distributed carloads 365 days per year.) TPI's self-serving locomotive fleet calculations should be rejected.

B. CSXT's Operating Plan Is Feasible And Should Be Adopted.

CSXT's Reply and Supplemental Evidence set forth the only feasible operating plan of record. Only CSXT's operating evidence accounts properly for all of the trains needed to provide uninterrupted service for each general freight carload in TPIRR's traffic group. Only that evidence accounts for the yard track capacity, yard locomotives and crews required to execute CSXT's real-world car blocking and classification plan (which TPI purported to adopt). Only CSXT's evidence provides a fleet of locomotives and cars sufficient to accommodate the selected traffic, based on CSXT's real-world operations and dwell time experience. TPI's criticisms of CSXT's operating plan are meritless.

1. Train Service Plan

TPI devoted much of its Rebuttal to an attack on CSXT's train service plan, characterizing it as "gold-plated" and "over-inflated." TPI Reb. at III-C-21 to III-C-42. TPI's Supplemental Evidence likewise claimed that many of the trains in CSXT's MultiRail analysis are unnecessary.[42] Tellingly, what TPI did not claim is that CSXT's evidence fails to provide all of the train service required to move each car of TPIRR's selected traffic from its specific origin across the TPIRR network to its specific destination—to the contrary, TPI argued that CSXT's operating plan provided too much (not too little) train service.

In reality, it is TPI's critique of CSXT's train service plan—not the plan itself—that is overblown and inaccurate. As TPI acknowledged (TPI Reb. at III-C-23 to III-C-24), CSXT's MultiRail analysis generated an operating plan that moves the selected traffic with 5,452 fewer

[42] *See* TPI Supp. Reply at 10-18.

road trains than TPI's operating plan.[43] Likewise, the total number of crew starts and locomotive unit-miles for road and local trains posited by CSXT is actually lower than those posited by TPI on Rebuttal (and its "Scenario #1"). CSXT's train service plan is hardly "over-inflated."

TPI's claim that MultiRail "do[es] not move 99 percent of the traffic from their origins to their actual destinations" (TPI Reb. at III-C-32) is demonstrably false.[44] MultiRail's "SuperSim" function generates a "trip plan" for each carload. CSXT's Reply narrative presented sample trip plans for TPIRR shipments, and its workpapers included trip plans for all issue shipments.[45] In its Supplemental Evidence, CSXT again included sample MultiRail trip plans in its narrative as well as a workpaper containing trip plans showing that MultiRail accounted for every step in the movement of every car of issue traffic.[46] As those samples illustrated, MultiRail accounts for every step in the process of transporting each car, from "release" ("Rlse") at the origin facility to setoff ("SO") and availability for unloading ("Avail") at the destination facility. By contrast, TPI proffered no evidence or analysis to prove that its train service plan accounts for the complete movement of TPIRR's selected traffic.

TPI's assertion that thousands of trains in CSXT's train list are "unnecessary" because MultiRail assigned "0" cars to them is likewise incorrect.[47] The fact that MultiRail may have assigned "0" cars to a local or industrial yard train does not mean that the train does not operate

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[43] *Compare* TPI Op. WP "TPIRR Base Year Unit Train List v2_Statistics.xlsx," TPI Op. WP "TPIRR Manifest Train List v2_Statistics.xlsx," TPI Reb. WP "TPIRR Base Year Unit Train List v2_ Rebuttal Statistics.xlsx and TPI Reb. WP "TPIRR Base Year Manifest Train List v2_ Rebuttal Statistics.xlsx" *with* CSXT Reply WP "TPIRR Reply Train Lists.xlsx."

[44] TPI witness Orrison's testimony regarding the alleged shortcomings of the MultiRail software is apparently based on his recollection of an outdated version of MultiRail that is no longer used.

[45] *See* CSXT Reply at III-C-67 to III-C-73; CSXT Reply WP "SARR19B-TripPlan_IssueTraffic_Loads.pdf" (containing a detailed trip plan for every car of issue traffic). *See also* CSXT Reply WP "MultiRail Freight Edition.docx" explains the process by which trip plans for other selected traffic can be generated by the software.

[46] *See* CSXT Supp. Op. at 18; CSXT Supp. WP "CSXT MultiRail Trip Plans.xlsx."

[47] *See* TPI Reb. at III-C-26; TPI Supp. Reply at 6-10. 12-18.

or handle cars. "Switcher" trains and industrial yard trains often operate short distances within the limits of a single station.[48] In preparing its Supplemental Evidence, CSXT used other sources in the record, including CSXT's 2013 payroll data, to confirm that CSXT actually operated the disputed local and industrial yard trains during the Base Year.[49] CSXT eliminated from its Supplemental train list any trains with "0" cars in MultiRail where the operation of such trains could not be confirmed by CSXT's payroll records, and adjusted the frequency with which such trains operate in CSXT's train service plan based on that data. As stated above, CSXT's revised count of "industrial yard trains" (23,868) is nearly the same as the number of such trains (23,333) that TPI itself identified in CSXT's historical car event data.

TPI's attempt to demonstrate other "inefficiencies"" and errors in CSXT's MultiRail evidence is unavailing. For example:

- TPI criticized CSXT for including a half-dozen train symbols to which MultiRail allegedly assigned no blocks (TPI Reb. at III-C-26). But a comparison of the parties' workpapers reveals that TPI's Rebuttal (and "Scenario #1") train lists include 2,045—or 98%—of the 2,080 annual trains that operated under those train symbols, fatally undermining its claim that those train symbols are unnecessary.

- TPI claimed that MultiRail generated "duplicative" trains, citing six train symbols that appear to operate multiple trains over the same routes carrying the same blocks (*id.* at III-C-27 to III-C-28). Five of the six train symbols cited by TPI are trains with an A suffix (*e.g.*, Trains M721 and M721A). The "A" trains represent either (1) "growth" trains that would operate in the Peak Year (but would not have been assigned cars in the Base Year), or (2) trains operating on the residual CSXT, which CSXT included in its MultiRail analysis to fully evaluate certain crossover shipments. The presence of those trains in the MultiRail analysis did not "inflate" the TPIRR's operating expenses, because CSXT did not include the costs of any "A" train in developing its Base Year operating statistics (*See* CSXT Reply WP "TPIRR Reply Train Lists.xlsx."

- TPI cited two trains (L133 and Q376) that it claimed operated "empty" (*i.e.*, locomotives without any cars) over a portion of their routes. *See* TPI Reb. at III-C-29. As TPI should have known based on the train symbol, Train L133 is an intermodal train. MultiRail does not assign specific intermodal containers to

[48] *See* CSXT Supp. Op. at 8-9; CSXT Reply at III-C-32 to III-C-33.

[49] *See* CSXT Supp. Op. at 8-10, 12-14.

trains, because containers are not classified and blocked like general freight cars. As a result, it may (incorrectly) appear from the MultiRail report that a train carrying only intermodal containers is operating with "0" cars. The specific train cited by TPI carried only intermodal traffic from North Baltimore to Louisville, where blocks of automotive traffic (which are shown in MultiRail) were added to the train for movement to Jacksonville.[50] Train Q376 is an overflow train that handles higher-than-normal volumes received from UP on certain days. MultiRail assigned most of the UP traffic to Train Q374 (which averaged 115 cars), leaving the Q376 "empty" for a portion of its trip. In the real world, traffic would be distributed between the trains that CSXT operates under those two train symbols.

- Finally, TPI claimed that CSXT's Supplemental train list contains too many intermodal trains operating under certain train symbols, and too few operating under other symbols. *See* TPI Supp. Reply at 6-9. But CSXT did not attempt to replicate the exact historical train assignments for TPIRR's intermodal traffic. CSXT's intermodal trains account for the complete movement of TPIRR's intermodal traffic – indeed, TPI itself acknowledged that "CSXT's operating plan moves roughly the correct volume of intermodal traffic on roughly the correct volume of trains." *Id.* at 9 (emphasis added).

As the foregoing discussion demonstrates, TPI's criticisms of CSXT's MultiRail evidence are based on a misunderstanding of how MultiRail works and/or how the real-world CSXT trains that TPI purported to adopt actually operate.

2. CSXT's RTC Simulation

In conducting its Reply RTC simulation, CSXT utilized a modified version of TPI's historical train list, rather than the train list generated by its MultiRail analysis. In the *DuPont* case, the complainant (represented by the same counsel and consultants as TPI) took the position that NS's RTC evidence was invalid because NS used a MultiRail train list in performing its RTC simulation.[51] By using a modified version of TPI's historical train list, CSXT hoped to eliminate that potential area of disagreement between the parties. Nevertheless, TPI took the position that the Board should reject CSXT's entire operating plan because CSXT's RTC Reply

[50] *See* CSXT Supp. WP "L133_Train_Operations.xlsx;" CSXT Reply WP "Profiles3 Update.xlsx."

[51] *See DuPont* at 37, n. 53.

simulation was not based on the MultiRail train list.[52] In its *Supplemental Evidence Order*, the Board instructed CSXT to submit an RTC simulation based on its MultiRail train list.

In its Supplemental Reply, TPI once again sought to discredit CSXT's RTC evidence. However, the criticisms leveled by TPI regarding CSXT's Supplemental RTC simulation are meritless.

TPI claims that CSXT violated the *Supplemental Evidence Order* by removing approximately 5,000 industrial yard trains from CSXT's Reply train list before inputting that list into the RTC Model. This claim is frivolous. As TPI itself states, the Board ordered CSXT to "submit an RTC model that has been run with all the trains it proposes as necessary to support its operating plan."[53] That is exactly what CSXT did. While the number of road and local trains in CSXT's Reply and Supplemental train lists are the same, CSXT eliminated certain industrial yard trains with "0" cars in MultiRail where the real-world operation of such trains could not be verified by CSXT's payroll records. The result was a final Supplemental train list that contains all of the trains that CSXT proposes as necessary to support its train service plan.

TPI's assertion that CSXT impermissibly changed the non-unit train miles in its Supplemental Evidence is likewise wrong.[54] As CSXT explained, a slight increase in locomotive unit miles in CSXT's Supplemental Evidence resulted from CSXT basing its calculations on mileages derived from its Supplemental RTC simulation rather than the MultiRail report that CSXT relied upon in preparing its Reply Evidence.[55] This adjustment is fully consistent with the Board's request that the parties submit updated operating expenses based upon their Supplemental RTC evidence.

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[52] *See* TPI Reb. at III-C-15 to III-C-21.

[53] *See* TPI Supp. Reply at 3 (quoting *Supplemental Evidence Order* at 8) (emphasis added).

[54] *See* TPI Supp. Reply at 56-57.

[55] *See* CSXT Supp. Op. at 41, n.111.

TPI's claim that there is a "critical disconnect" between CSXT's operating plan and Supplemental RTC simulation does not withstand scrutiny. Specifically, TPI complains that, while CSXT's MultiRail analysis "theoretically includes stops at all TPIRR customer locations, CSXT did not model service to all TPIRR locations in its RTC simulation."[56] As TPI is aware, the train profiles input to MultiRail (which were taken from CSXT's real-world operating plan as of June 2012) provide for local and industrial yard trains to operate with sufficient frequency to meet the needs of the customers along their route of movement. However, local trains do not stop at every customer facility on every day that they operate—rather, they stop at particular locations only on those days on which a car needs to be picked up or set off.

Because the MultiRail analysis is based upon an average week rather than actual day-by-day historical train movements, CSXT did not have information regarding the number of stops that each local train would actually need to make on each day of the "peak week." Therefore, CSXT modeled its MultiRail local trains to stop at those locations where the average number of cars on the train increased or decreased by two or more cars, or the car event data indicated that the real-world train originated or terminated two or more cars per day.[57] If CSXT had instead modeled every local train to stop at every customer location every day, CSXT's RTC simulation would have included "too many" stops, and generated inflated operating statistics by increasing train dwell beyond that required to serve TPIRR's customers. TPI's suggestion that CSXT's methodology resulted in a "fail[ure] to serve over one hundred carload shippers (TPI Supp. Reply at 4) is incorrect. The local and industrial yard trains in CSXT's operating plan operate over the same routes as CSXT's real-world trains and are available to serve all customer facilities along their route of movement on any day upon which service is required. The fact that

[56] *See* TPI Supp. Reply at 18.

[57] *See* CSXT Supp. Op. at 10-11, 14.

CSXT did not model every potential stop in its RTC simulation does not render its SARR incapable of providing service as required. Indeed, the notion that TPIRR's trains would stop at the same customer locations on the same days of the week every week over the 10-year DCF period is utterly inconsistent with real-world rail operations.

In any event, any suggestion that the alleged modifications flaws in CSXT's Reply and Supplemental RTC simulations render that evidence unreliable is flatly contradicted by TPI's own Rebuttal and Supplemental RTC simulations, which generated results virtually identical to those produced by CSXT's RTC simulations.

CSXT's Reply RTC simulation resulted in a network consisting of 10,284 miles of "running" (main, secondary and branch line) track. That represented a difference of only 65 miles (or 0.6%) from the 10,219 running track miles posited by TPI on Opening. *See* TPI Reb. at III-B-16 to III-B-19. On Rebuttal, TPI accepted the 65 additional miles of running track proposed by CSXT, but modified its configuration by removing 19 miles of rail sidings that had been included in TPI's Opening configuration, resulting in a network consisting of 10,265 miles of running track, only 19 miles (or 0.1%) fewer than posited by CSXT.[58] Thus, the parties' RTC simulations produced running track configurations that are virtually identical. Neither TPI nor CSXT posited any change in their respective SARR running track infrastructure as a result of their Supplemental RTC simulations.[59]

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[58] *See* TPI Reb. at III-B-16 to III-B-19. TPI's removal of those 19 miles of siding track violated the Board's proscription against changes by a complainant on rebuttal, after the defendant carrier has accepted the shipper's position in its reply evidence. *See, e.g., FMC Wyoming Corp v. Union Pacific R.R. Co.*, 4 S.T.B. 699, 790 (2000) ("*FMC*") (rejecting complainant's change in triple-track configuration on rebuttal where carrier had accepted complainant's configuration on reply). *See also DuPont* at 84, n. 76 ("The complainant may not make changes on rebuttal when the defendant has accepted the opening submission and did not have an opportunity to reply to those changes.").

[59] *See* CSXT Supp. 32-34; TPI Supp. Op. at 32, 34. In its Supplemental Reply (at 48), TPI asserts that CSXT "overbuilt its network." That statement is bizarre, given that TPI adopted

Average train speeds generated by the parties' RTC simulations are also similar. The average road and unit train speed in TPI's Rebuttal and Supplemental simulations (20.9 MPH) is virtually identical to that produced by CSXT's Reply and Supplemental simulations (20.8 MPH). The difference in local train average speed in the parties' RTC simulations is modest—indeed local trains travel somewhat faster (11.9 MPH) in CSXT's Supplemental simulation than they do in TPI's Supplemental simulations (10.2 MPH). CSXT's Supplemental RTC simulation also produced faster average industrial yard train speeds (6.8 MPH) than TPI's Supplemental RTC simulation (4.0 MPH).[60] These data thoroughly discredit TPI's assertion that CSXT's RTC simulation does not generate a reliable track configuration and valid operating statistics.

Finally, the relative merits of CSXT's and TPI's RTC simulations are not determinative of most TPIRR operating expenses.[61] Notwithstanding TPI's rhetoric, the reality is that most SARR operating expenses are not based on outputs of the RTC simulation. Table 1 lists the many categories of operating expense that are not dependent upon any RTC output.

CSXT's Reply running track configuration on Rebuttal, and neither party proposed any change to TPI's Rebuttal running track infrastructure in their Supplemental RTC evidence. The 415 miles of track that TPI supposedly removed from CSXT's Supplemental RTC Model consist primarily of R&D yard tracks (based on TPI's improper reliance upon the RTC Model to determine R&D track requirements) and industrial tracks. *See* TPI Supp. Reply WP "Unused Track in CSXT Supplemental Rebuttal w UPS v4.xlsx."

[60] *See* TPI Supp. Reply at 50, Table III-1.

[61] An RTC simulation does not—and cannot—determine whether or not an operating plan is "feasible." Rather, an RTC simulation is used to "assess the adequacy of the proposed track configuration for the [SARR] to handle the expected traffic" (*AEP Texas North Co. v. BNSF Railway Co.*, STB Docket No. 41191, at 17 (Sub-No. 1) (served Sept. 10, 2007) ("*AEP Texas*")) and to develop average transit times for use in calculating certain expenses. *See also Western Fuels Ass'n, Inc. v. BNSF Railway*, STB Docket No. 42088, at14 (served Feb. 17, 2009) ("*WFA II*") (RTC Model "test[s] the adequacy of the configuration (to make sure the [SARR] would have sufficient capacity to handle the peak forecast demand)"). TPI itself acknowledges that "[t]he RTC model only proves the ability of the track configuration (model input 1) to accommodate the operating plan (model input 2)." TPI Reb. at III-C-21 (emphasis added). Thus, the feasibility of CSXT's (or TPI's) operating plan is not dependent on the results of its RTC simulation.

TABLE 1
TPIRR Operating Expense Items that Do Not Rely on RTC Outputs

Freight Car Dwell	Ad Valorem Taxes (for TPI only)
Freight Car Peaking Factors	Contract Locomotive Maintenance Unit Cost
Local Train Locomotives	Crew Fringe
Operating Managers	Locomotive Spare Margin
Road Crew Rebalance & Recrew (for CSXT only)	Freight Car Unit Cost, System
Road Crew Shifts & Salary	General & Administrative
Yard Crew & Locomotive Requirements	Intermodal Lift Costs
Locomotive Lease Unit Cost	Maintenance of Way

Moreover, in this proceeding, the parties' positions are in near agreement with respect to those SAC costs that are based upon RTC outputs. As discussed above, the parties' respective RTC simulations produced virtually identical running track configurations. Both CSXT and TPI utilized the average train transit times from their RTC Models in estimating locomotive and freight car hours. Because the average train speeds generated by the parties' RTC simulations are virtually identical, any minor differences in their locomotive and freight car hour calculations are attributable to factors other than RTC operating statistics. TPI and CSXT also relied upon their respective RTC simulations to develop other operating statistics including the average number of locomotives per train and locomotive repositioning requirements, and reached estimates that are substantially the same. For example, on Rebuttal TPI posited an average of 2.26 locomotives per train for TPIRR road trains, and 1.24 locomotives per train for TPIRR local trains, nearly the same as the 2.28 units for road trains and 1.22 units for local trains proposed by CSXT on Reply.[62]

[62] *Compare* TPI Reb. WP "Rebuttal2 REPORT_Opr Stats.xlsx" *with* CSXT Reply WP "TPIRR Reply RTC Results.xlsx."

TABLE 2
Use of RTC Model Outputs for SAC Evidence

	CSXT Reply	TPI Rebuttal
Train Transit Times (used to calculate Locomotive Hours and Freight Car-Hours)	✓	✓
Running Track Configuration	✓	✓
Number of Locomotives per Train	✓	✓
Locomotive Re-Positioning	✓	✓
Locomotive Dwell in Yards	✓	
Re-Crew Percentage for Road Crews		✓
Receiving & Departure Tracks in Yards		✓

As Table 2 shows, the only RTC-related issues upon which the parties remain in substantial disagreement are (1) the number of R&D tracks at TPIRR hump yards, (2) locomotive dwell time between assignments, and (3) the percentage of road crews that would require re-crewing. As discussed above, TPI (improperly) relied upon the RTC Model to determine R&D track capacity requirements at TPIRR yards, while CSXT based its R&D track estimate on a detailed analysis of daily yard activity at each location. CSXT's locomotive dwell estimate was derived from TPI's RTC simulation, so any difference in the parties' positions on that issue is not related to differences in their respective RTC Models.[63] And while TPI utilized outputs from its RTC simulation in estimating road train re-crew requirements, CSXT based its estimate on its actual real-world experience. *See* CSXT Reply III-D-50 to III-D-51.

In short, the parties' RTC simulations have little bearing on the Board's determinations with respect to operating expense issues that remain in dispute.

[63] As discussed above, TPI proffered no evidence whatsoever to support its three-hour locomotive dwell estimate.

III. CSXT'S EVIDENCE OF OTHER OPERATING EXPENSES SHOULD BE ACCEPTED.

A. CSXT's Freight Car Cost Evidence Is The Best Evidence of Record.

TPI's freight car acquisition costs understate certain lease rates, do not account for all of the time freight cars would spend on the system, and fail to account for the complexities of freight car fleet supply for a railroad providing carload service. *See* CSXT Reply at III-D-29 to III-D-45. TPI's attempts on Rebuttal to correct the errors that CSXT identified on Reply are meritless.[64]

First, TPI's calculation of yard dwell times understates the number of switching events. On Opening TPI assumed just one intra-train or inter-train switch per cycle (*i.e.*, loaded and empty round trip). CSXT showed that this was unrealistically low and substituted a conservative assumption that each TPIRR load would average four intra-train or inter-train switches per cycle. *See* CSXT Reply at III-D-41. On Rebuttal, TPI agreed that its Opening assumption was understated, but complained that some unit train or pre-blocked traffic might need less than four switches per cycle. TPI Reb. at III-D-22. But CSXT's assumption that each loaded TPIRR car will receive four switches on average already considers that some cars will require fewer than four switches and others will require many more than four switches. Moreover, even if it is not switched, unit train and pre-blocked traffic still incurs yard dwell time for events like locomotive servicing, switching out bad order cars, and holding for crews. TPI's assumption that these cars incur zero dwell time conflicts with the realities of real-world railroading.

Second, in its Opening TPI miscalculated freight car payable expenses from CSXT's R-1 Schedule 414 by incorrectly including in the denominator the miles and hours for all equipment. CSXT corrected this error in its Reply. CSXT Reply at III-D-42 to III-D-43. In its Rebuttal TPI

[64] CSXT does not dispute that it inadvertently made a formula error in CSXT Reply WP "TPIRR Car Cost_CSXT Reply.xlsx." *See* TPI Reb. at III-D-23.

accepts CSXT's correction, but claims that CSXT's calculation omits per diem payments received from foreign carriers while TPIRR system-owned railcars are on foreign lines. TPI Reb. at III-D-24. In other words, TPI is arguing that TPIRR should be compensated for its cars while those cars are off the TPIRR. However, TPI's calculation of TPIRR car costs covers only the time that the cars are assumed to be on TPIRR. Because TPIRR does not incur any ownership costs while its cars are off line, it is not entitled to any compensation for its cars while offline.

Third, TPI used a single freight car peaking factor that does not capture the fluctuations in the needs of TPIRR's customers for specific freight cars. *See* CSXT Reply at III-D-43. CSXT developed peaking factors for each type of TPIRR freight car that more accurately capture the ebb and flow of car supply requirements for a carload network. *Id.* TPI's claim that CSXT's approach "defies precedent" ignores that the "precedent" cited by TPI is based primarily on western coal cases with SARR operations that are not comparable to those of TPIRR. *See id.* at III-D-30. TPI's further claim that the CSXT peaking factors are unreasonably high because no railroad carries enough cars to meet a possible maximum demand event is beside the point. CSXT's peaking factor is based on CSXT actual operations and thus reflects the car supply CSXT itself was required to maintain to serve its customers. In the same vein, TPI observes that a percentage of the fleet needed to accommodate peak week demand will not be needed during the remainder of the year. TPI is correct. This is a fact of real-world railroading that is essential to provide adequate service to customers, and TPIRR must account for it just as CSXT does.[65]

[65] TPI also claims that train starts is a better source of data than car waybills for calculating the peaking factor. TPI has not shown that this is true. For example, using car data may better reflect days spent by cars prior to being picked up. Further, car waybill data allows the calculation of peaking factors by car type, which train starts does not.

B. CSXT's Evidence of G&A Expenses Is the Best Evidence of Record.

TPI's G&A evidence follows the all-too-familiar pattern of a complainant unveiling brand-new theories on Rebuttal and in the process completely jettisoning the positions it took on Opening. It likewise follows the familiar pattern of refusing to acknowledge past Board decisions on G&A expenses in the hope that the Board might accept TPIRR staffing proposals that do not even come close to satisfying the service needs of its selected traffic.

On Opening TPI provided a single benchmark to support its G&A staffing estimate: an "illustrative" comparison to what it claims was the staffing of the Chicago & North Western ("CNW") in 1994. *See* TPI Op. Ex. III-D-2 at 8-10. On Reply CSXT showed that this comparison was nonsense, both because TPI was proposing G&A staffing vastly below CNW's 1994 staffing and because TPI's assertions about CNW were not credible—particularly since its witness sponsored contradictory evidence in *DuPont*. *See* CSXT Reply at III-D-82 to III-D-90.

TPI's Rebuttal does nothing to defend its former CNW comparison on the merits, except to argue that it is a "smear" tactic to point out that the G&A evidence Mr. McDonald sponsored in *DuPont* makes different claims about CNW's staffing than the G&A evidence he sponsored in this case.[66] TPI Reb. Ex. III-D-1 at 19. There is nothing unfair about pointing out that a witness sponsored evidence in one proceeding that is irreconcilable with evidence in another proceeding, particularly when the witness's "experience and knowledge" is being cited as the primary source of staffing estimates.[67] The integrity of the Board's proceedings depends on witnesses standing

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[66] *Compare* Rebuttal Evidence of E.I. du Pont de Nemours & Co.,, E.I. du Pont de Nemours & Co. *v. Norfolk Southern Ry. Co.,* DuPont Reb. Ex. III-D-1, at 5 (filed Apr. 15, 2013) (evidence sponsored by Mr. McDonald claiming that CNW had only 207 G&A employees and that based on his "significant experience" it was an "efficient, cost-effective railroad" that was a model for SARR staffing); *with* TPI Op. Ex. III-D-2 at 9-11(evidence sponsored by Mr. McDonald claiming that CNW had 533 G&A employees and that the TPIRR would be able to achieve better efficiency and "greatly reduced personnel").

[67] CSXT Reply WP "February 27 Moreno Email.pdf."

by the testimony that they sponsor, and the Board should be seriously concerned when a witness cites his "experience" to say one thing in one proceeding and another in the next.

After its failed attempt to rehabilitate its witness, TPI drops all reference to the CNW benchmark on which it centered its Opening Evidence. Apparently deciding that the best defense is a good offense, TPI claims that "CSXT's G&A position . . . rests on the foundation that the TPIRR's G&A staffing and costs must necessarily resemble CSXT's staffing and costs." TPI Reb. Ex. III-D-1 at 5. TPI's premise is false, because CSXT assumed that TPIRR would be more efficient than CSXT in almost every respect.[68] But while CSXT assumed feasible efficiency improvements in line with precedent, TPI claimed ludicrously low staffing with no support in past cases or the record in this case. As a result, TPI proposes that the TPIRR could claim 64% of CSXT's revenues with 6% of its marketing employees, 28% of its revenue accounting employees, and similarly sparse staffing in nearly every G&A area. *See* CSXT Reply at III-D-108, III-D-128.[69]

TPI has essentially no explanation for why its G&A staffing and spending proposal is a fraction of what would be suggested by recent SAC cases. As CSXT showed in its Reply, TPI proposed one-third of the G&A staff that the Board accepted for a similarly sized SARR in *DuPont*, and far lower staffing on a revenue-adjusted basis than has been accepted in any other

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[68] *See, e.g.,* CSXT Reply at III-D-109 (assuming "that the TPIRR could be markedly more efficient than CSXT"); *id.* at III-D-100 (assuming "equal or greater efficiency than CSX's real world staffing"); *id.* at III-D-157 (assuming "best-in-class environmental staffing for a major railroad").

[69] Contradicting itself, TPI asserts at several points that its TPIRR staffing is relatively comparable to CSXT's real-world staffing, based on alleged comparisons to discovery documents and public reports. These assertions are plainly improper rebuttal that should have been included on Opening. (The fact that TPI's Opening maintenance-of-way evidence included similar (and similarly invalid) asserted comparisons to CSXT shows that TPI could and should have made any G&A-related arguments on Opening as well.) Moreover, TPI's cherry-picked comparisons are predicated on summary pronouncements that vast swaths of CSXT's workforce are "not needed" or of "no value" and not an actual apples-to-apples comparison.

recent SAC case. *See* CSXT Reply at III-D-79-81 and Tables III-D-16, III-D-17. CSXT's staffing, on the other hand, is well in line with past decisions. *See id.* All TPI says is that CSXT did not prove that TPI's support for its arguments was similar to that provided by past complainants. *See* TPI Reb. Ex. III-D-1 at 13. TPI has it backwards. It is TPI that has the burden to justify a break from past precedent. And the Board well knows that TPI has not offered evidence any different or more compelling than the complainants in *DuPont*, *SunBelt*, or any other recent cases.[70]

As has become typical, TPI's Rebuttal G&A Evidence is substantially longer than the Opening that was supposed to contain its entire case-in-chief. In many areas TPI simply repeats arguments that the Board has already rejected in past cases.[71] In others, TPI rejects CSXT's staffing proposals as supposedly "astounding[ly]" overstated without acknowledging that CSXT's staffing is well in line with levels that the Board has found reasonable.[72] And in others it proposes new Rebuttal theories to support its Opening proposals that are both improper Rebuttal and plainly unpersuasive.[73] While space does not permit CSXT to address TPI's

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[70] TPI's claim that density will create G&A efficiencies is nonsense. G&A needs like marketing and accounting are driven by overall revenues, not density. Indeed, TPI does not identify a single G&A expense that it claims is reduced for the TPIRR because of its density.

[71] For example, TPI claims that the TPIRR could have a smaller police force because it would "utilize local police forces" and it asserts that it would have less need for claims agents because its railroad is newly constructed. TPI Reb. Ex. III-D-1 at 62, 65. Each of these arguments was rejected in *DuPont*. *See DuPont* at 92-93.

[72] For example, TPI asserts that it is "astounding" for CSXT to include 116 revenue accounting personnel for the TPIRR, but neglects to mention that total is in line with the *DuPont* decision and with real-world railroad staffing. TPI's further assertion that CSXT proposed more revenue accounting personnel for the TPIRR that CSXT has itself is false; CSXT's Reply Evidence clearly explained that it conservatively proposed less revenue accounting staff for TPIRR than CSXT's own 131 freight revenue accounting staff, despite the fact that the TPIRR would likely have more complex revenue accounting needs for its crossover traffic.

[73] For example, TPI's Rebuttal claims that its absurdly low attrition rate of 3% is supported by "independent real-world sources," but in fact it cites only one extrapolation from a single source

Rebuttal evidence in detail, the Board's past decisions and SAC principles require rejection of TPI's minimal G&A staffing and acceptance of CSXT's well-supported G&A evidence.

C. CSXT's Maintenance of Way Evidence Should Be Accepted.

TPI proposes a maintenance-of-way workforce for TPIRR far smaller than the workforces that the Board has found necessary in recent cases, and TPI has provided no reason for the Board to make such a sharp break with recent precedent. CSXT's Reply Evidence showed that TPI's proposed MOW staffing and spending was far lower on a track-mile basis than the levels that the Board has accepted in any recent case, and indeed was over 40% smaller than the MOW staff the Board accepted for a similarly-sized SARR in *DuPont*. *See* CSXT Reply at III-D-175 to III-D-76. TPI's only response to this evidence is to complain that CSXT based its comparison on main track miles (as the Board did in *Western Fuels Ass'n & Basin Elec. Power Cooperative v. BNSF Railway Co.*, STB Docket No. 42088 (served Sept. 10, 2007) ("*WFA I*")) rather than on total track miles. *See* TPI Reb. Ex. III-D-2 at 9-10. But the deficiencies in TPI's staffing are equally apparent when looking at total track miles to be maintained. As Table 3 shows, TPI's staff would be required to maintain 10.7 track miles per employee, as compared to recent decisions where MOW staff maintained between 3.6 and 6.4 track miles per employee. In contrast, CSXT's MOW plan posits that TPIRR would have a MOW workforce more efficient on a track-mile basis than the workforce the Board approved in *DuPont* and substantially more efficient than the workforces approved in other recent cases like *SunBelt*, *WFA*, and *Otter Tail*.[74]

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suggesting that another railroad had an attrition rate of 6.25%—over twice what TPI claims. CSXT's real-world attrition rates are plainly the best evidence of record and should be accepted.

[74] *See SunBelt* at 74 (accepting defendant's MOW plan in part because it was "in line with what has been accepted in past Board decisions" and the complainant did not provide evidentiary support for a break from those decisions).

TABLE 3[75]

	DuPont	*SunBelt*	*AEPCO 2011*	*WFA*	*Otter Tail*	*Xcel*	CSXT Reply	TPI Rebuttal
MOW Staff	2,163	**185**	559	97	437	179	1,966	1,144
Track Miles	12,905	**870**	3,599	447	1,563	679	12,583	12,281
Track Miles to MOW Staff	**6.0**	**4.7**	**6.4**	**4.6**	**3.6**	**3.8**	**6.4**	**10.7**

TPI has not justified such a dramatic break with precedent. Its argument that TPIRR would be "a new railroad" ignores the fact that every SARR has brand-new infrastructure. Being new does not change the fact that from day one TPIRR's high-traffic operations will cause wear and tear requiring regular maintenance. The Board has rejected arguments that a SARR "could get by with a smaller MOW force because it would be a newer system and would therefore experience fewer maintenance problems." *Otter Tail* at C-20; *see SunBelt* at 73.[76] Like the complainant in *Otter Tail*, TPI has not quantified any particular savings that TPIRR would realize from being "new," and it has not explained why its MOW staff would be more efficient than those of other SARRs that also maintained newly constructed track.

TPI also adds a new Rebuttal argument that its MOW plan is reasonable because CSXT itself supposedly has inefficient MOW staffing and spending. Even if this new Rebuttal claim

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[75] *See Arizona Electric Power Cooperative, Inc. v. Burlington Northern & Santa Fe R.R. Co. & Union Pacific R.R. Co.*, STB Docket No. 42113, at 32, 65 (served Nov. 16, 2011) ("*AEPCO 2011*"); *WFA I* at 26, 57; *Otter Tail Power Co. v. BNSF Ry .Co.*, STB Docket No. 42071, at A-1, C-20 (served Jan. 27, 2006) ("*Otter Tail*"); Supplemental Reply Evidence of BNSF Ry. Co., *Otter Tail Power Co. v. BNSF Ry .Co.*, STB Docket No. 42071, at III-D-21 (filed Mar. 1, 2005); *Xcel* at 633, 662; *DuPont* at 46, 109, 114, 117, 122; *SunBelt* at 20, 77, 82, 85, 88; TPI Reb. at III-B-19, III-D-60; CSXT Reply at III-B-15. Track miles are rounded to the nearest whole number, and track-mile-to-MOW staff ratios are rounded to the nearest tenth.

[76] *See also AEPCO 2011* at 66 (recognizing that "substantial welding work would be required from the outset" of a newly-built SARR); *AEP Texas* at 71 ("We cannot simply assume [] that only minimal repairs would be required throughout the entire SAC analysis period . . . .").

were proper (and it is not), it has nothing to do with the fact that TPI is proposing substantially smaller staffing than the Board has accepted in past cases.[77]

The lion's share of the MOW staffing difference between CSXT and TPI is attributable to track workforce, which is primarily a function of the size of Roadmaster districts, and signals workforce, which is primarily a function of the number of AREMA units that can be maintained per signal maintainer. In each of these areas CSXT's evidence accords with Board precedent and common sense, and TPI's does not.

TPI proposes Roadmaster districts that are substantially larger than those accepted in any recent case, and tries to justify that proposal by claiming that Roadmaster districts should be measured by total track miles and not main track miles. As Table 4 shows, this distinction makes no difference, for it is CSXT's proposal that is in line with past cases, not TPI's.

TABLE 4[78]

	DuPont	***SunBelt***	***AEPCO***	**CSXT Proposal**	**TPI Proposal**
Roadmasters	69	5	20	72	51
Total Track Miles	12,905	870	3,326	12,583	12,281
Size of Average Roadmaster District	**187**	**174**	**180**	**175**	**240**

In the same vein, CSXT's signals evidence followed Board precedent by assuming that each TPIRR signal maintainer could maintain 1100 AREMA units. *See* CSXT Reply III-D-220; *DuPont* at 111; *SunBelt* at 79. TPI's only counter is to cite the "experience" of an expert whose similar "experience"-based testimony was rejected in *DuPont* and *SunBelt* in the face of a

[77] TPI's claims that its MOW staffing proposal is comparable to CSXT's actual MOW workforce continues to be based on unsupportable manipulations of the data that summarily exclude vast numbers of CSXT employees as "not needed." For example, TPI excludes all CSXT floating crew members on the ground that the TPIRR would not have floating crews, but that of course does not change the fact that CSXT's floating crews are performing necessary maintenance activities that the TPIRR would also need to perform. *See* CSXT Reply at III-D-182 to III-D-183.

[78] *See AEPCO 2011* at 32, Table 2, 66; *DuPont* at 46, 102; *SunBelt* at 20, 73; TPI Reb. at III-B-5; TPI Reb. Ex. III-D-2 at 34.

detailed special study supporting the use of 1100 AREMA units per maintainer. Moreover, the Board has recognized that a signal maintainer workforce must be supplemented by additional technicians and personnel to assist with inspections, who perform important functions not performed by signal maintainers and whose necessity has been recognized by the Board. *See* CSXT Reply at III-D-222 to III-D-223; *AEPCO 2011* at 73; *SunBelt* at 80; *DuPont* at 111.

D. CSXT's Ad Valorem Tax Evidence Should Be Accepted.

TPI's Rebuttal does not dispute that its approach to ad valorem taxes does not account for how states actually calculate such taxes and has been rejected by the Board in both *DuPont* and *SunBelt*. *See DuPont* at 136-37. Instead, TPI complains that CSXT did not use accrual accounting when calculating a unit value modifier for the TPIRR. TPI does not quantify any alleged error that resulted from CSXT's accounting methodology, let alone explain how a unit value modifier could be calculated using accrual accounting. But TPI's minor quibbles about CSXT's accounting methodology pale in comparison to the "incurable" and "fundamental" flaws that the Board has found with TPI's methodology. *SunBelt* at 67 n.307 (commenting on ad valorem tax approach identical to TPI's). And TPI's assertion that CSXT's evidence is "inconsistent" is nonsense. There is nothing inconsistent about a SARR having a level of operating income that makes it profitable for taxation purposes but that does not provide an adequate return to investors for purposes of a SAC analysis.[79]

[79] For example, CSXT paid substantial ad valorem taxes in 2009 and 2010 despite being found to be revenue inadequate for those years. *See Railroad Revenue Adequacy, 2010 Determination*, STB Docket No. EP 552 (Sub-No. 15) (served Nov. 3, 2011); *Railroad Revenue Adequacy, 2009 Determination*, STB No. EP 552 (Sub-No. 14) (served Nov. 10, 2010).

IV. CSXT'S ROAD PROPERTY INVESTMENT EVIDENCE IS SUPERIOR TO THAT OF TPI.

A. CSXT's Land Valuation Should Be Accepted.

CSXT's land appraisal was consistent with modern appraisal practices, based on substantial on-the-ground observation, and the best evidence of record. While space precludes a detailed response to the arguments in TPI's Rebuttal, much of TPI's criticisms depend on claims that CSXT assigns too much value to "small-scale" purchases and that TPIRR would be able to realize efficiencies from buying larger chunks of land at a time. This argument ignores the fact that railroad right-of-way is necessarily made up of relatively smaller-scale purchases, because a narrow 100-foot right-of-way must extend several miles (and almost always through the land of multiple property owners) before its total acreage adds up to one of the large-scale real estate purchases that TPI overweighs. For example, while TPI touts the efficiency of 30-acre purchases, it fails to mention that it would take nearly 2.5 miles of 100-foot-wide right-of-way to add up to 30 acres. It is unrealistic for TPI to use a methodology that overweighs large-scale purchases for a right-of-way that would require TPI to purchase land in smaller parcels from the many landowners along its right-of-way.[80] Below CSXT briefly addresses two other particularly egregious flaws in TPI's real estate evidence.

Easements. TPI proposes that the TPIRR could acquire easements for the nominal dollar value paid by CSXT or its predecessors without indexing for inflation—even if the easements were purchased well over a century ago. This squarely contradicts Board precedent that "easement values [] must reflect current values."[81] While TPI asserted its no-indexing position

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[80] TPI's proposed approach is also inconsistent with the Board's rejection of an "assemblage factor" for land purchases needed to acquire a right-of-way, a rejection based on a lack of evidence that the incumbent railroad incurred such an expense when it acquired the right-of-way at issue. Similarly, TPI has offered no evidence that CSXT was able to purchase the land for its right-of-way in 30-acre purchases—because there is no such evidence.

[81] *SunBelt* at 103; *DuPont* at 139 (accepting NS's easement valuation).

on Opening, it waited until Rebuttal to unveil "regression analyses" that it claims support that position. TPI Reb. at III-F-11 to III-F-12. The Board should not consider this improper Rebuttal evidence, which should have been presented on Opening.

Land Acquisition Costs. TPI failed to include the transaction costs of acquiring land, including title work, surveys, appraisals, negotiations, and closing costs. The Board has recognized the need to account for these costs in two recent cases.[82] Nevertheless, TPI repeats the discredited claims made by the complainants in those cases that real estate acquisition costs are a barrier to entry. *See* TPI Reb. at III-F-12. On the contrary, acquisition costs are a natural part of every real estate purchase.[83] Railroads purchasing land a century ago had to negotiate with landowners, survey their right-of-way, record their land interests, and otherwise incur transaction costs over and above the value of the acquired land. So too must TPIRR.

B. TPI's "Trestle Hollow" Argument Should Be Rejected.

The Board has historically recognized that R.S. Means construction cost data is the most reliable way to estimate earthwork unit costs, and it recently reaffirmed that holding in *DuPont* and *SunBelt*.[84] TPI refuses to accept this precedent and instead repeats the exact same arguments that the Board rejected in *DuPont* and *SunBelt*: namely, that the Board should instead base earthwork costs for 7000 miles of construction on unit costs for a 1.3 mile construction project by a short line in Trestle Hollow. TPI's argument is no more persuasive here than it was in *DuPont* and *SunBelt*, and the Board's analysis in those two cases compel the same result here.

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[82] *See DuPont* at 141 ("The Board . . . considers these to be transaction-specific costs which the [SARR] should reasonably expect to incur while purchasing each parcel of needed real estate."); *SunBelt* at 104.

[83] Real estate acquisition costs are thus distinct from environmental or land regulatory costs that would be required of a new entrant but that likely were not incurred by railroads a century ago.

[84] *DuPont* at 149; *SunBelt* at 107-08; *see also* CSXT Reply at III-F-18 to III-F-20 (collecting cases showing that the Board has used Means earthwork costs unless there is evidence of costs from large rail projects conducted by the incumbent carrier on the very lines replicated by the SARR).

TPI's unrepresentative unit costs for earthwork should be rejected, and the Board should adopt the R.S. Means-based costs presented by CSXT. *See* CSXT Reply at III-F-16 to III-F-31.

Just as in *DuPont,* TPI failed to demonstrate that the costs incurred on the small, dense, and atypical Trestle Hollow project were representative of the costs that would be incurred by TPIRR in building a 7000-mile, multi-state railroad traversing diverse terrain, topography and conditions. *See DuPont* at 148-49. Indeed, TPI conceded that the Trestle Hollow project was atypical and enjoyed economies of scale that would not be available to TPIRR. *See* TPI Reb. III-F-22 ("[I]t is true that the concentration of cubic yards was higher on the Trestle Hollow Project than the average on the TPIRR", which afforded that project greater economies of scale for earthwork). As the Board held in *DuPont* such a small, unrepresentative short-line project is not reliable evidence of earthwork costs for a multi-state SARR. *See DuPont* at 148-49. Rather, "the size, scope, and geographic and topographic diversity of the [SARR] make the use of Means more appropriate than the extrapolation of costs from a single project." *Id.* TPI's failure to demonstrate that the Trestle Hollow project was representative of the costs that would be incurred by TPIRR compels the same result here.

C. Movable Bridges Costs

TPI seeks to avoid paying the overwhelming majority (90%) of the costs of construction of movable bridge spans by claiming that TPIRR would receive federal "Truman-Hobbs" Act funding for each of its 31 movable bridges. As the Board explained in rejecting the identical argument in a recent SAC decision, the Truman-Hobbs Act does not apply to a rail carrier's new construction of bridges in the first instance:

> The Truman-Hobbs Act applies to the retrofitting or replacement of existing bridges over waterways to accommodate water traffic whose changed characteristics require a change in the bridge . . . [The] SAC analysis involves constructing new infrastructure for the hypothetical

> SARR—not removing and replacing the incumbent railroad's existing infrastructure.[85]

TPI claims that applying the requirements of the Truman-Hobbs Act would constitute an impermissible barrier to entry because CSXT was entitled to such funding. TPI Reb. at III-F-81. On the contrary, the original cost of constructing movable bridges is a cost that CSXT or its predecessor railroads had to bear. Truman-Hobbs only applies to retrofitting and replacement of existing bridges, which means the incumbent carrier either paid to construct the original bridge or purchased it and thereby compensated the prior owner for its original capital investment. SAC road property investment is based on the cost to build a railroad in the first instance, not the cost to retrofit or "remove and replac[e] the incumbent railroad's existing infrastructure." *SunBelt* at 142. By paying the full cost of constructing movable bridges, the TPIRR would be making the *same* investment made by the incumbent and would face no barrier to entry.

Unless a party to a SAC case demonstrates otherwise, a SAC analysis must assume that the incumbent railroad bore the full cost of constructing a movable bridge when the structure was originally built, and thus that the SARR must bear that full cost. *See, e.g., DuPont* at 223; *SunBelt* at 142. Because TPI has presented no evidence whatsoever that the government paid any part of the costs of the original construction of any movable bridges[86] on the route replicated by TPIRR, the TPIRR—like CSXT and its predecessors, must bear 100% of the cost of constructing those bridges in the first instance. *See id.*[87]

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[85] *SunBelt* at 142 (emphasis added); *see also DuPont* at 223.

[86] On Rebuttal, TPI claims that CSXT received Truman-Hobbs Act funding for the replacement of its bridge over the Mobile River near Hurricane, Alabama. *See* TPI Reb. at III-F-84. However, TPI does not claim that CSXT or its predecessor obtained such funding for the original construction of that bridge. The use of federal funding to assist in the replacement of the Mobile River bridge does not excuse the TPIRR from bearing the cost of constructing that original bridge in the first instance.

[87] Without identifying any specific movable bridge on the TPIRR that supposedly was built with public funding, TPI asserts that it should be allowed to assume that other sources of public funds

D. Grading

1. TPIRR Must Account for Costs of Excavation Waste in Urban Areas.

CSXT correctly included values for urban land in its determination of the costs of land for excavation waste. TPI argues on Rebuttal that it is not possible to determine where waste excavation occurs, so it just assumed—unrealistically—that all such waste is disposed of exclusively in rural areas. *See* TPI Reb. at III-F-37 to III-F-39. However, CSXT demonstrated that the volume of waste generated in urban areas reasonably can be estimated based upon the parties' agreed assumptions, including that 30% of the adjusted ICC-reported excavation quantities will be wasted. *See* CSXT Reply at III-F-45 to III-F-47. TPI failed to provide any alternative calculation of waste volumes for urban areas. Moreover, TPI failed to account for the costs of the extended lengths of haul that would be required to haul excavated waste materials from urban locations to less costly rural areas. Because some excavation waste undoubtedly would occur in urban areas, the SAC analysis must either account for land to deposit that waste in urban areas or the cost of hauling such waste from urban areas to rural areas. TPI accounted for neither.

TPI's new assertion on Rebuttal that main line earthwork quantities are overstated in certain "short valuation sections with significant amounts of yard track" (TPI Reb. at III-F-40) fails to tell the full story. First, contrary to TPI's assumption, the terrain around Nashville is not flat, so TPI's conclusions regarding the requirements of the topography are unsupported. Second, the assumption of one foot of earthwork excavation assigned to yard tracks was

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for transportation infrastructure projects would allow the TPIRR to bear only ten percent of the costs of constructing all movable bridges on its system. *See id.* at III-F-88 to III-F-89. But the fact that some programs are intended to provide some public funding to some transportation projects does not come close to proving that the specific movable railroad bridge replicated by the TPIRR were built with public funds. TPI does not even show that the movable bridges on the TPIRR would be eligible for funding through the programs it cites, let alone that any movable bridge actually received such funding.

proposed by TPI in its Opening Evidence as part of its calculation of earthwork quantities attributable to the TPIRR main line. On Reply, CSXT accepted TPI's assumption. TPI cannot now on Rebuttal disavow that assumption in order to claim that its own calculations produced overstated results that should not be used to determine earthwork quantities in urban areas. Moreover, it is not in fact the quantities themselves that are in dispute. The question is whether excavation waste quantities in urban areas can be wasted on non-urban land. CSXT's evidence is the best evidence of the cost of land for disposal of excavated materials in urban areas traversed by the TPIRR.

2. Only CSXT's Evidence Accounts for the Undeniable Fact That Excavated Earth Expands ("Swells").

In order to ensure accurate hauling costs using Means, unit costs for excavation materials that are hauled must be adjusted to account for the expansion that occurs when earth is excavated. CSXT's adjustments to excavation unit costs to reflect increased haulage costs for expanded material are required by Means, which makes clear that unit costs for hauled excavated material should be adjusted by the ratio of loose cubic yards to the corresponding embanked cubic yards (latter is natural state before excavation). *See* CSXT Reply at III-F-50 to III-F-52.

On Rebuttal, TPI argued that it should not be required to account for expansion of excavated materials unless there is a definitive showing that the ICC Engineering Reports quantities are recorded in pre-construction ("BCY") or post-construction ("ECY") quantities. TPI misses the point. The question of the proper unit costs for hauled excavated material has nothing to do with whether the Engineering Reports quantities are pre-construction or post-construction. Rather, the point is that the Means unit prices for hauling materials are based on loose, uncompacted cubic yards ("LCY") to reflect volumes dumped into a hauler for transport. Both BCY and ECY represent some level of compaction—either that occurring naturally over time in BCY or as compacted with machinery in ECY. Means unit costs for hauling materials

account for the fact that uncompacted materials consume more area than compacted materials. CSXT's adjustment simply matches the hauled quantities with the relevant unit price. *See* CSXT Reply WP "Swell and Shrinkage — Ringwald, Means heavy Construction Handbook.pdf."

3. Subgrade Preparation

CSXT's Reply Evidence applied conservative and well-supported costs for subgrade preparation (wetting and drying of subgrade material). TPI argued on Rebuttal that CSXT's conservative selection of only the driest five SARR states for analysis of subgrade preparation needs is insufficient. But TPI did not identify a single segment on the TPIRR route that it believes CSXT misclassified. Moreover, TPI does not dispute that both wetting and drying of soils are required during construction. Rather TPI's complaint is that a separate bid cost item for water for compaction is not a standard item in construction contractor bids. However, the development of SARR construction costs do not take the form of standard bids. Rather, it is the parties' responsibility to identify and account for all necessary cost elements. Because costs for water for compaction and drying of wet soil are necessary and are not included elsewhere in the quantified construction costs, they must be accounted for as separate line items.

4. Fine Grading

CSXT demonstrated that fine grading is necessary and provides the only fine grading evidence not dependent on the discredited Trestle Hollow Project. *See* CSXT Reply at III-F-48 to III-F-49. As CSXT explained, a motor grader is necessary for fine grading because scrapers and bulldozers only shape the roadbed section roughly and are not capable of finer tasks necessary to create the crown of the roadbed and the shape of ditches. *See id.* Means excavation and borrow costs do not include equipment capable of conducting fine grading, which the Board has found is "an actual and necessary construction element for rail lines." *See id.* at III-F-48.

TPI offers two responses to CSXT's showing, both of which the Board has repeatedly rejected. TPI first argues that fine grading was implicitly included in the lump sum Trestle Hollow bid price. As CSXT previously demonstrated—and as the Board has twice agreed—the 1.3-mile Trestle Hollow project cannot be used as a proxy for costs of a SARR that is several thousand times larger. Moreover, TPI provides no meaningful evidence to show that fine grading was actually included in the Trestle Hollow lump sum bid. *See id.* at III-F-49, n.92.

TPI's only other response to CSXT's showing that fine grading is a necessary cost that Means accounts for separately is witness Crouch's observation that costs for fine grading equipment are sometimes not addressed separately in a contractor's bid. But this claim is irrelevant to the question of whether Means separately accounts for grading and fine grading costs. The Board repeatedly has recognized that Means accounts for fine grading separately from other grading activity.[88]

The Trestle Hollow project—which does not directly or expressly address fine grading—cannot be used as a basis for fine grading costs for the large and diverse TPIRR. This leaves CSXT's Means-based evidence as the best evidence of record. Means clearly accounts for necessary fine grading costs separately from other grading costs. *See SunBelt* at 115-16.

E. Off-line Transportation of Construction Materials

1. Ballast Material Price

CSXT's ballast costs are the best evidence of record and reflect the most efficient balance between supplier location and material price.[89] TPI claims that TPIRR could obtain ballast from

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[88] *See SunBelt* at 115-16 ("Means lists fine grading separately from other grading activities, and this additional step would be needed to shape the [SARR]'s roadbed.") (emphasis in original); *DuPont* at 172 (same); *Xcel* at 678.

[89] TPI's allegation that CSXT made errors in calculating ballast prices and distances is a red herring. The assignment of the quarry in Verdon, VA to the TPIRR's Mckeesport, PA railhead instead of Toledo, OH is the result of judgments made by CSXT's experts in developing the most efficient ballast supply for the TPIRR. The remaining three "errors" TPI identified

suppliers not used by CSXT but used by NS. However, rather than obtain ballast prices from such suppliers and develop associated transportation costs, TPI erroneously claimed that the fourteen quarries used by CSXT "are representative of the [TPIRR] ballast market for 2010." TPI Reb. at III-F-57. Thus, despite TPI's acknowledgement that it is infeasible for TPIRR to use certain quarries used by CSXT, it relies on prices from those very same quarries when determining the price for ballast. TPI's shortcut ignores the fact that ballast prices differ by region and that the ballast prices in the regions traversed by TPIRR are higher.[90] *See* CSXT Reply at III-F-76. The Board should adopt CSXT's ballast costs as the best evidence of record.

2. Off-Line Transportation Costs

CSXT presented the only contemporary, supported evidence of off-line transportation costs for ballast and other materials. CSXT developed prices for off-line transportation of ballast, ties, and other track materials based upon a price quotation from a reputable real-world supplier. *See, e.g.,* CSXT Reply at III-F-80 to III-F-82, III-F-87, III-F-91. TPI, on the other hand, relied on an assumed transportation cost from 1994 developed for a Western rate case, and no contemporary real-world evidence. *See* TPI Op. III-F-24, III-F-30.[91]

On Opening, TPI used a 20-year-old on-line ballast transportation cost accepted by the Board in *AEPCO v. BNSF* as a proxy for off-line ballast transportation costs, without showing

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collectively affect the delivered ballast price by less than 0.4%. *See* TPI Reb. III-F-50; *compare* CSXT Reply WP "Ballast Prices by Supplier and Location CSXT Reply" *with* TPI Reb. WP "Ballast Prices by Supplier and Location CSXT Reply TPI Reb." Cells L5, L13, and M21.

[90] The Board rejected a similar argument regarding tie prices in *SunBelt*. *See SunBelt* at 133 ("Sunbelt's assumption that all tie manufacturers would charge it the same price for ties is not supported, and absent evidence to the contrary, not likely.").

[91] TPI's Rebuttal also made the irrelevant claim that the $0.035 cost it proffered for off-line ballast transportation costs could be imputed from the Board's adoption of that same cost for on-line transportation costs. But the dispositive fact here is that CSXT offered an actual, current real-world offline transportation price quote and TPI offered only an indirect argument for the use of a two-decades-old cost used in a prior case from a different region under different facts and conditions. Just as in *DuPont* and *SunBelt,* a supplier's actual current transportation price quote is the best evidence of record and should be adopted.

that on-line costs in a Western case bear any relationship to off-line transportation costs that TPIRR would pay today in the East. *See* CSXT Reply at III-F-80. CSXT used an actual, current rate for transporting ballast materials from a real-world aggregates supplier. *Id.* at III-F-81. Based on that price quotation, CSXT derived the applicable cost per ton-mile for off-line transportation of ballast. *Id.* On Rebuttal, TPI refused to adjust its off-line ballast transportation costs (same as the 1994 on-line cost accepted in *AEPCO*). *See* TPI Reb. at III-F-61 to III-F-62. TPI complained that CSXT "could have easily obtained NS tariffs" for transportation of ballast material and derived an off-line transportation price from those tariffs. *See id.* at III-F-62. But what that argument overlooks is that TPI could have just as "easily obtained NS tariffs" for such transportation, if it really believed that was the best or most accurate evidence of that cost.

CSXT's position in this case is supported by the Board's two most recent SAC decisions. In both *DuPont* and *SunBelt,* the Board adopted the carrier's evidence of actual current off-line transportation costs rather than an old proxy estimate applied in *AEPCO*, accepting the railroad's proffered transportation cost quote as "the only evidence of record." *DuPont* at 193; *see SunBelt* at 131. TPI relies on the same stale evidence that the Board rejected in both *SunBelt* and *DuPont.* Like NS in those cases, CSXT has presented the best evidence of record in this case.[92]

F. Tie Prices

CSXT corrected a demonstrated error in TPI's tie costs using TPI's own evidence, namely tie prices that TPI itself obtained from suppliers. On Opening, TPI derived its unit price for ties from a schedule to CSXT's 2010 form R-1, which predominantly included lesser grade, lower quality ties than the Grade 5 ties specified by TPI and accepted by CSXT. *See* CSXT

[92] TPI also attempts to rely on the outdated *AEPCO*-based cost for transportation of ballast as representative of the current cost of transportation of ties, turnouts, and other track materials. But TPI offers no evidence whatsoever to support the far-fetched notion that its old imputed cost of ballast transportation is a reasonable proxy for the transportation cost of those much different materials. *See, e.g.,* CSXT Reply at III-F-87 to III-F-95.

Reply III-F-85 to III-F-87. On Reply, CSXT corrected this error using bids from three suppliers identified by TPI in its Opening Evidence. *See id.* at III-F-86 to III-F-87. On Rebuttal, TPI did not contest CSXT's showing that the aberrational 2010 R-1 data that it relied on primarily reflected lesser quality yard and switching track ties rather than the Grade 5 mainline ties TPI specified for the TPIRR. Nonetheless, TPI doubled down and refused to adjust its erroneous tie costs, despite evidence in its own workpapers showing that costs of Grade 5 ties are significantly higher than the costs for yard ties used in its evidence. *See* TPI Reb. III-F-64 to III-F-65.

TPI also argues that TPIRR may receive volume discounts. But TPI provides no evidence to support its speculation that the SARR might receive volume discounts, let alone how much any such hypothetical discounts might reduce its costs for Grade 5 ties. Finally, TPI asserts that all suppliers would match the lowest price provided by any tie supplier. This same claim was flatly rejected by the Board in *SunBelt*. *See SunBelt* at 133 ("Sunbelt's assumption that all tie manufacturers would charge it the same price for ties is not supported, and absent evidence to the contrary, not likely"). TPI provided no evidence to support this notion, and the Board should apply its *SunBelt* precedent and reject TPI's unsupported speculation.

V. TRAFFIC AND REVENUE

A. Coal Traffic Forecast

On Opening, to forecast TPIRR coal volumes from 2013-2017, TPI aggregated CSXT's internal forecast at the Origin Region level. In order to better capture traffic that actually would travel on TPIRR, CSXT refined TPI's approach by applying growth rates at the Origin Region/Destination level. *See* CSXT Reply III-A-10 to III-A-12. This refinement is necessary because TPIRR would handle only 61% of CSXT's total coal traffic. TPI's primary Rebuttal

argument is to miscast CSXT's position as an update to CSXT's internal forecast.[93] But the primary difference between the parties' coal volume forecasts is the manner in which the forecast is aggregated and applied to the actual historical CSXT traffic volumes. While TPI recognized the shortcomings in its Opening approach by eliminating Newport News traffic on Rebuttal, that adjustment does not fully address the problem with TPI's volume forecasts. CSXT's coal volume forecasts more accurately matches CSXT's internal forecast with the traffic that TPI selected for the SARR.

B. Added Coal Traffic

In addition to refining the Origin Region/Destination approach, CSXT also added to the SARR traffic group seven movements from the internal CSXT forecast that were projected to begin moving in later years. These movements were not in the Base Year volumes and otherwise would not have been included in the TPIRR coal traffic volume under CSXT's more refined approach. *See* CSXT Reply at III-A-12. While TPI rejected CSXT's Origin Region/Destination approach, it indicated in a footnote that it accepted CSXT's addition of these new movements. *See* TPI Reb. at III-A-8, n.16. TPI cannot have its cake and eat it too by rejecting CSXT's refined methodology but "accepting" the elements that advantage TPI. This would result in a clear double-count that the Board should reject. Under TPI's aggregated

[93] In addition to the refinements described above, CSXT incorporated publicly available information on plant closures that was not available in 2013 and thus would not have been incorporated in the internal forecast that was used. See CSXT Reply at III-A-13. CSXT's Reply adjustment for plant closures is but one aspect of the overall Origin Region/Destination region approach. The Board should incorporate these anticipated lower volumes for the TPIRR. If the Board disagrees with CSXT's supplementation of the forecast with public information, however, it can adjust the SARR volume forecast by eliminating the closure percentages in the Plant Closure tab of CSXT WP "TPIRR Coal Revenue Forecast (Final) REPLY.xlsx."

approach, the volumes and revenues for the seven new movements are already accounted for in the growth rates that TPI uses to project future SARR traffic volumes.[94]

C. Later Year Volume Growth

On Opening and Rebuttal, TPI used a Compound Annual Growth Rate ("CAGR") approach that extrapolated growth rates from 5 years of CSXT (2013-2017) internal forecasts to subsequent years.[95] CSXT presented two alternative approaches, either of which is superior to the CAGR approach advocated by TPI.

First, rather than extrapolating from forecasts intended only for prior years, CSXT used EIA AEO forecasts for 2018-2020 to project TPIRR volumes for that period. *See* CSXT Reply III-A-16 to III-A-21. Use of such independent government forecasts developed for the actual years in question is preferable to the CAGR approach, which crudely extends forecasts for prior years into future years for which they were not intended. *See* CSXT Reply at III-A-19 to III-A-20. CSXT's preferred approach—using neutral government agency forecasts to derive TPIRR

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[94] For example, the CSXT internal forecast projected Eastern Interior (EINT) coal volumes to grow by {{ }} from 2013 to 2014. *See* TPI Reb. WP "Coal Volume Forecast Matrix_REB.xlsx." More than half of that growth ({{ }} carloads) comes from a single new movement {{ }} that commenced in 2014 and was not in the SARR traffic group (which was based on historical shipments). When CSXT refined the use of the internal forecast, it added this lane to the SARR traffic group in 2014. By increasing all existing EINT movements in the SARR traffic group by {{ }} and then adding this new movement on top of that increase, TPI double-counts nearly 16,000 carloads. *See* TPI Supp. Op. WP "TPIRR Coal Revenue Forecast (Final) REPLY-REB2xlsx."

[95] TPI incorrectly claims that CSXT mis-calculated the CAGR for STCC 13 (221%). TPI Reb. at III-A-12. 221% represents the CAGR using actual volumes for 2010 (which pre-dated the shale oil boom) and the CSXT internal forecast for 2017. The 19% that TPI calculated represents only the 2013 to 2017 period. The 221% CAGR demonstrates the inadequacy of the CAGR approach in some circumstances and would need to be adjusted if the Board were to adopt a CAGR approach. The Board could adjust for this aberration by using CSXT's 2017 forecast volume and applying the EIA AEO forecast for STCC 13 for 2018-2020 (EIA forecasts that crude oil production from the region that includes this traffic will increase by less than 1 percent during the period from 2017 to 2020.). *See* CSXT Reply at III-A-18.

volumes for all commodities for years for which internal CSXT forecasts are not available—is far superior to re-purposing prior years' forecasts using the CAGR advocated by TPI.

Second, if the Board were to adopt any CAGR approach, it should calculate the compound growth rate using all available years of the SAC analysis period. The period that formed the basis for TPI's CAGR used only the years in CSXT's forecast (2013-2017), and not the actual traffic volumes moved by CSXT from 2010 to 2013. The Board's primary rationale for using a CAGR in two recent cases was to "mitigate the likelihood that a single extraordinary year may skew the result[s]" by smoothing out the effects of such annual fluctuations. *See DuPont* at 261; *SunBelt* at 173. The greater the number of relevant years used in developing a CAGR, the lower the likelihood that a single year will have a distorting effect on the result. Therefore, if the Board decides to use a CAGR rather than relying on EIA forecasts, it should base that CAGR on both actual volumes moved by CSXT from the beginning of the analysis period through 2013 and the available CSXT internal forecasts for the period 2014-2017, resulting in a CAGR based on eight years instead of five years. *See* CSXT Reply at III-A-18. The Board used just such a combination of actual and internal forecast growth rates in *SunBelt* to project coal volumes in the out years for the SunBelt SARR. *See SunBelt* at 173-74. If the Board decides to use a CAGR instead of EIA forecasts for TPIRR volumes for 2018-2020, that CAGR should be based on eight years of the SAC analysis period, from 2010 through 2017.

TPI's Rebuttal arguments regarding later year (2018-2020) volumes are confused and internally contradictory. TPI "supported" its Rebuttal assertion that the Board should adopt TPI's shorter-period CAGR with the following nonsensical argument:

> CSXT's claims that the CAGR should utilize additional years of historical data ignores Board precedent that the CAGR should be based on historical data for the DCF period at issue in the proceeding.

TPI Reb. at III-A-13. But using "historical data for the DCF period at issue in the proceeding" is precisely what CSXT advocated the Board use if it decides to use a CAGR extrapolation rather than the EIA forecasts for the later years of the analysis period. TPI contradicts its position on the same page by concluding "[a] CAGR based on actual data and the railroads' own internal forecast is the best metric to forecast the TPIRR traffic in the 2018-2020 time period and is the forecast used by TPI in Rebuttal." *See id.* Thus it appears that TPI's last word in its Rebuttal narrative and CSXT's Reply are in general agreement—if the Board applies a CAGR to project 2018-2020 TPIRR volumes of non-coal commodities, it should use a combination of actual traffic volumes and CSXT internal forecasts, covering the period 2010 through 2017.[96]

D. Adjust Revenue Allocation for Leapfrog Traffic

On Reply CSXT explained the myriad problems created by internal crossover ("leapfrog") traffic, which TPI employed to avoid constructing 4,500 route miles of the CSXT system used by leapfrog shipments for which TPI claimed SARR revenue. *See* CSXT Reply III-A-30 to III-A-37, III-C-36 to III-C-54, CSXT Reply Ex. III-C-5. In the event that the Board nevertheless allows leapfrog shipments to remain in the SARR traffic group, CSXT presented two approaches to allocate leapfrog revenues in a way that helps to mitigate their distortive effect. *See id.* at III-A-39 to III-A-40.

E. TPIRR Revenue Issues

Although the differences between the parties regarding remaining revenue issues generally are not large, TPI cherry-picks and misconstrues data in its attempts to defend its position on a few significant items:

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[96] TPI's workpapers use only five years of CSXT forecast data—from 2013 to 2017—to derive its CAGR. *See* TPI Op. WPs "Non-Coal Volume Forecast Matrix.xlsx" & "Coal Volume Forecast Matrix.xlsx"; TPI Reb. WPs "Non-Coal Volume Forecast Matrix_REB.xlsx" & "Coal Volume Forecast Matrix_REB.xlsx." This contradicts TPI's rebuttal narrative, suggesting that either TPI erred in its rebuttal workpapers or that it lacks a consistent position.

Fuel surcharge for Birmingham Intermodal Movements. CSXT showed that intermodal shipments interchanged with BNSF at Birmingham, AL report almost no fuel surcharge. *See* CSXT Reply at III-A-24. TPI's Rebuttal claim that "this traffic historically achieved fuel surcharge percentages as high as 25.4% on certain intermodal shipments" relates only to a single shipment record that had revenues of less than $900. Moreover, TPI's own Rebuttal Evidence shows that the BNSF Birmingham traffic has an effective fuel surcharge of 0.7% overall. *See* TPI Reb. WP "TPIRR_TRAFFIC_ HISTORICAL_CONTAINER_ALL Reb.xlsx." By continuing to apply the maximum fuel surcharge after the historical period, TPI is projecting revenues that would not exist. The Board should reject these imaginary revenues.

Waybills with missing shipment key data. TPI refuses to correct its flawed matching methodology and continues to claim for the TPIRR an overstated share of revenues generated by shipments whose waybills are missing shipment keys. TPI asserts on Rebuttal that the "Board should require CSXT to live with the consequences of its decision almost four years ago to produce bad data in discovery." TPI Reb. at III-A-24. CSXT did not produce bad data. The data CSXT produced is the same data CSXT uses in its normal course of business. The data matching process CSXT presented on Reply is more precise and more accurately reflects the revenues that the TPIRR should be allowed to claim.

Fuel Surcharges on Renewing Contracts. By assuming that every expired contract would renew with the highest fuel surcharge level TPI ignores CSXT's actual experience. TPI's assumption does not reflect reality, where larger customers have negotiating power to obtain more favorable provisions. While it is true that many CSXT contracts over the last 15 years include a fuel surcharge (*see* TPI Reb. at III-A-38), TPI ignores that many large customers have negotiated fuel surcharge discounts that generally continue upon contract renewal, as CSXT showed on Reply. See CSXT Reply at III-A-25 to III-A-27. Moreover, any price increases that

CSXT may obtain are already captured in the CSXT internal forecasts used to project TPIRR revenues.

VI. DISCOUNTED CASH FLOW ISSUES

A. TPIRR Would Incur Significant Equity Flotation Costs.

TPI dismisses the need to include costs for its SARR's raising of equity capital, arguing that "the STB rejected the inclusion of equity flotation costs in its recent *DuPont* and *SunBelt* decisions." TPI Reb. at III-G-2. But the Board rejected inclusion of such costs in those cases because it found NS's evidence on the size of a flotation fee—citing to the fees paid by Facebook in connection with its IPO—to be an inadequate basis of comparison. *See DuPont* at 274-75. The Board clearly rejected DuPont's argument, which is repeated here by TPI, that equity flotation fees must be excluded from a SAC analysis based on the theory of contestable markets:

> The flotation cost is a fee that is specific to the hypothetical scenario of having to raise $17.2 billion in equity capital. Whether that capital is raised through one massive IPO, or in smaller amounts over a longer time period, it would be unreasonable to assume that the SARR would raise this capital in either case without paying some form of equity flotation fee. *Id.* at 274 (emphasis added).

TPI attempts to elude this clear holding by introducing for the first time on Rebuttal the suggestion that TPIRR could raise the $21.8-$30.1 billion of needed equity capital through use of a private placement rather than an IPO. *See* TPI Reb. at III-G-4. But this newly contrived argument—which should be rejected as impermissible rebuttal—lacks any evidentiary support for the claim that a private placement would be devoid of transaction costs of the type covered by equity flotation fees for an IPO—even if such a technique was shown to be a feasible method of raising such a large amount of capital, which it has not.[97] Indeed, TPI's argument appears to

[97] TPI's references to Berkshire Hathaway's acquisition of BNSF and of Fortress Investment's acquisition of RailAmerica (TPI Reb. at III-G-5) provide no support for this newly minted claim. Neither transaction was done through a private placement, and both were acquisitions of existing

rest on the belief that it should not be required to bear the real-world costs of what would be "the largest IPO in world history" (*Id.* at III-G-16, n.55) because it would benefit from an infinite number of "sophisticated investors" willing to pour their capital into TPIRR. TPI blithely asserts that the acknowledged real-world existence of a "limited number of investors available to invest" in TPIRR "would not be an issue for a SARR operating in a contestable market" *Id.* at III-G-5. In other words, TPI's position is that it can rely upon a limitless number of hypothetical "stand-alone sophisticated investors" who would permit TPIRR to raise tens of billions of dollars without any costs for bankers, lawyers, accountants, brokers, and investment advisors.[98] That position is not credible and would distort contestable markets theory.

Finally, TPI takes issue with the 2% equity flotation fee that CSXT included in its Reply Evidence as a very conservative estimate compared with the average of 3.6% for all underwriting fees for large U.S. IPO's during the last 10 years calculated by CSXT's witness Klausner (an expert on investment banking and capital markets with more than 20 years of experience).[99] TPI

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railroad companies with historical track records. By contrast, investors would view the TPIRR, a "greenfield" new entrant of unprecedented size and cost, as a highly speculative enterprise.

[98] Equity flotation costs are well-recognized in financial literature. *See, e.g.*, E. Arzac and M. Marcus, *Flotation Cost Allowance in Rate of Return Regulation: A Note*, THE JOURNAL OF FINANCE, Vol. 36, No. 5, at 1199 (Dec. 1981) *available at* https://www0.gsb.columbia.edu/mygsb/faculty/research/pubfiles/794/Flotation_cost_article.pdf ("The cost of external equity capital is higher than the investor-required rate of return because of flotation costs (underwriting expenses and underpricing). Recognizing this, regulatory agencies have generally included an allowance for flotation costs in the authorized cost of capital."); Investopedia, "Complete Guide to Corporate Finance: Cost of Equity," *available at* http://www.investopedia.com/walkthrough/corporate-finance/5/cost-capital/cost-equity.aspx ("It is important to note that the cost of newly issued stock is higher than the company's cost of retained earnings. This is due to the flotation costs."); Cogito, "Correct Treatment of Flotation Costs," *available at* http://qmarks.wordpress.com/2010/04/03/correct-treatment-of-flotation-costs/ ("Flotation costs are the fees charged by investment bankers when a company raises external equity capital and they can be often amount [sic] to between 2% and 7% of the total amount of equity capital raised, depending on the type of offering.").

[99] That evidence supports a finding that this average of 3.6% is a reasonable estimate. CSXT's adoption of 2% is an extremely conservative estimate, and one that should be accepted by the Board.

Reply III-G-7, III-G-2, n.3. But despite pages of quibbling and muddying of the waters on the issue, TPI never says—because it cannot—that TPIRR would incur no flotation fees in raising the $21.8 billion supported by its own Opening Evidence, let alone the $30.1 billion supported by CSXT's Reply Evidence. It would be clear error for the Board to recognize, as it has, that TPIRR would incur such costs but then to assign a value of zero to them because there exist no precisely comparable transactions. There never will be a real world financing of $20-30 billion for a new railroad—whether through an IPO or a private placement. To hold that even extensive evidence of the type submitted by CSXT of a variety of IPOs of different sizes and in different industries, with their associated flotation costs, is still inadequate to support a very conservative estimate at the low end of the range for those transactions, would be to create an insuperable evidentiary barrier that would ensure that no flotation costs of any size could ever be found to be reasonable in any SAC case. Such a holding would constitute clear error.

B. Fuel Costs

CSXT used its actual fuel costs for 2010-2013 as the basis for calculating TPIRR's fuel costs for that time period. *See* CSXT Reply at III-G-9. This approach results in a significantly more accurate estimate of the cost of fuel, which is both TPIRR's single largest operating expense item (representing 25% of total operating expenses) and the most volatile item (varying by more than 50% during the first three and a half years of TPIRR operations). TPI objects to CSXT's use of actual fuel costs, but none of its objections have merit.

TPI first claims that the Board cannot consider actual fuel costs in the SAC analysis without a notice-and-comment rulemaking to revise *Major Issues*.[100] *See* TPI Reb. at III-G-18 to III-G-19. On the contrary, CSXT's proposal to use actual historical fuel prices through 2013 and adjust the remaining non-fuel related expenses by a hybrid AII-LF is conceptually similar to the

[100] *Major Issues in Rail Rate Cases,* STB Ex Parte No. 657 (SubNo.1) (served Oct. 30, 2006), *aff'd sub nom. BNSFv. STB,* 526 F.3d 770 (D.C. Cir. 2008)

Board's changes to the standard hybrid RCAF-U/A in *DuPont* and *SunBelt*, which the Board held did not require a rulemaking. *See DuPont* at 266 & n.1442; *SunBelt* at 179 & n.918. CSXT's minor adjustment to improve the accuracy of the SAC analysis does not require a new rulemaking any more than did the Board's action in *DuPont* and *SunBelt*.

TPI's assertion that CSXT's fuel cost approach does not properly account for productivity gains is also baseless. In the first place, the effects of productivity in the Board's hybrid RCAF-U/A index in the first few years of the SARR are very small, since the RCAF-A represents only 5% to 15% of the hybrid index from 2011-2013. If anything, CSXT's approach overstates the amount of productivity that TPIRR will be able to achieve by applying all of the productivity captured in the RCAF-A, including fuel related productivity, to the non-fuel related items represented in the AII-LF. And as a practical matter TPIRR would not achieve any productivity gains on its fuel usage in the early years, since it would be using the same locomotives in 2013 that it acquired in 2011.

There is no merit to TPI's final claim that it did not have the data to make adjustments to non-fuel expense categories. Discovery covered the period through June 2013, and TPI had ample opportunity to use that actual data to propose adjustments to non-fuel expenses in the early years of the SAC analysis. There is no good reason not to use actual data to develop an accurate estimate of the fuel costs that are the largest and the most volatile operating expense.

C. Debt Amortization

TPI uses a repeatedly-rejected approach that would assume that TPIRR has outsized tax benefits that flow from the assumption that it would never pay down the principal on its debt. The Board rejected this very same argument in *DuPont* and *SunBelt*, and it should do so again here. *See DuPont* at 281-82; *SunBelt* at 191. TPI claims in its Rebuttal that the Board supposedly failed in those cases to recognize that the capital carrying charge calculations include

a repayment of the investment principal. This argument misses the point. The issue is whether the debt amortization calculations used in the DCF analysis (and the interest tax shields that flow from those calculations) should reflect a SARR that is paying down its debt or a SARR that is only making payments on the interest. The DCF model assumes that the initial SARR investment will be amortized over the projected life of each SARR asset and that a new investment will be incurred at the end of each asset's life. As a result, interest related expenditures on the unamortized investment acquired with debt should decline, consistent with the DCF assumption that the principal on that debt be paid down.

D. Terminal Value Calculation

TPI also proposes changing the calculation of the DCF terminal value to assume that the interest tax shield associated with TPIRR debt would continue into perpetuity. TPI's proposed terminal value change is an extension into perpetuity of its proposed "interest-only" approach to debt amortization.[101] That proposed approach was rejected by the Board in both *DuPont* and *SunBelt*, and TPI's proposed extension of the concept into perpetuity should be similarly rejected. TPI's assertion that *DuPont* and *SunBelt* actually "approved of corrections identical to that made by TPI in its Opening Evidence" is incorrect. TPI Reb. at III-H-18. In both cases, the Board rejected shippers' proposed coupon payments, so it could not have approved corrections identical to TPI's. While the Board did accept complainant's arguments in those cases that a change to the terminal value calculation is warranted, the Board's remedy was itself materially flawed, both because it assumed that the TPIRR assets acquired to replace those that have worn out will have differing debt amortization patterns and because it overstated the amount of the

[101] Specifically, to implement its proposed terminal value change, TPI "calculated an interest tax shield in perpetuity by dividing the last full quarterly *coupon* payment by one plus the quarterly real cost of capital." TPI Reb. III-H-18. In fact, TPI's own description of its calculation is inaccurate. The actual calculation divides the last quarterly coupon payment by the quarterly real cost of capital, not one plus the quarterly real cost of capital.

available tax benefit in the first ten years beyond the DCF period. *See* CSXT Reply at III-H-13 to III-H-14. To avoid the introduction of additional inconsistencies into the DCF, TPI's proposed changes to the DCF terminal value calculations should be rejected and the terminal value should continue to be calculated as it was in *AEPCO 2011*. *See id.*

E. Bonus Depreciation

TPI's Rebuttal Evidence assumed an astounding $9.2 billion of the TPIRR's road property investment would be written off in the first year of TPIRR operation as bonus depreciation.[102] As CSXT explained on Reply, this enormous temporary tax shelter, caused by the simplifying stand-alone cost assumption that narrows the construction period to 30 months, would create a reverse barrier to entry that would bestow cost savings to a new hypothetical entrant that were not available to the incumbent. See CSXT Reply III-H-6 to III-H-9.[103]

F. North Baltimore Operating Expense Escalation

CSXT escalated the operating expenses attributable to the new North Baltimore intermodal facility separately from 2010 through 2013 because the actual increases in costs are not accounted for in the gross ton-mile escalator used in the DCF to adjust other TPIRR operating expenses. The facility did not fully come on line until 2012, and the number of lifts there increased significantly from {{ }} in 2010 to {{ }} by 2013. *See* TPI Op.

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[102] TPI Reb. WP "Exhibit III-H-1_Rebuttal.xlsm," Tab "Tax Depreciation," Cells C70-71.

[103] TPI adds a new argument on Rebuttal in an attempt to justify its overreaching use of bonus depreciation, claiming that it is justified as "hit-and-run entry." TPI Reb. at III-H-12. But the "hit-and-run entry" feature of Contestable Market Theory refers to the vulnerability of transient profits of the *incumbent*. As Baumol describes, "a transient entrant can set up business, replicate a profit-making incumbent's output at the same cost as his, undercut the incumbent's prices slightly and still earn a profit." Baumol, William J., *Contestable Markets: An Uprising in the Theory of Industry Structure*, THE AMERICAN ECONOMIC REVIEW, Vol. 72 No. 1, at 4 (Mar. 1982), *available at* http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.470.8509&rep=rep1&type=pdf. TPI mistakenly attempts to use this concept to justify benefiting from a transient cost advantage for a new entrant. The TPIRR should not be allowed to use the full benefit of a temporary tax relief that was not fully available to CSXT.

WP "Intermodal Terminal Cost and Volume Update.xlsx." As explained in Section III-D, North Baltimore is an intermediate facility, originating or terminating few shipments, so the number of lifts performed there is additive and is less a function of SARR volumes levels used to adjust other operating expenses. In fact, TPI's Opening workpaper shows that CSXT's lifts grew between 2010 and 2012 at a much higher rate than overall loads, with North Baltimore representing most of this difference. *Id.*

VII. CONCLUSION

As summarized above and shown in CSXT's Reply and Supplemental Evidence, a proper application of the SAC test shows that the challenged rates are well below maximum reasonable levels and that TPI is entitled to no relief whatsoever.

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PUBLIC VERSION

CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of December, 2015, I caused a copy of the foregoing Brief of CSX Transportation, Inc. to be served by hand-delivery upon:

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