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April 13, 2017

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Cynthia T. Brown, Chief
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Office of Proceedings
Surface Transportation Board
395 E Street, SW
Washington, D.C. 20423-0001

Re: Docket No. NOR 42142, Consumers Energy Company v. CSX Transportation, Inc.

Dear Ms. Brown:

Enclosed for filing in the referenced docket on behalf of Complainant Consumers Energy Company ("Consumers") please find the following:

1. The unbound original and twenty-five (25) copies of the Highly Confidential Version of Consumers' Rebuttal Supplemental Evidence, consisting of one volume. Please note that some Exhibits contain color images.

2. The unbound original and twenty-five (25) copies of the Public Version of Consumers' Rebuttal Supplemental Evidence, also consisting of one volume (including Exhibits which contain color images).

3. One hard drive containing electronic copies of the Highly Confidential Version of the Evidence, as well as the workpapers supporting Consumers' Rebuttal Supplemental Evidence (all of which are submitted in electronic form) and the Rebuttal Verified Statement of David Maughan. The electronic workpapers are designated as Highly Confidential under the Protective Order entered by the Board in this proceeding.

Please note that certain of the electronic workpapers on the hard drives include Security Sensitive Information ("SSI"). The SSI information is appropriately identified in accordance with the Department of Transportation's SSI Order 2011-06-FRA-01. In addition, in accordance with SSI handling guidelines, the hard drive is password protected. Please contact Daniel Jaffe of Slover & Loftus LLP at 202.454.4420 for the password.

Kindly date stamp the extra copies of this cover letter and the enclosed pleading and return them to the bearer of this letter. Thank you for your attention to this matter.

Sincerely,

Katherine F. Waring
An Attorney for Complainant
Consumers Energy Company

KFW:lad
Enclosures
cc: Counsel for Defendant CSX Transportation, Inc.

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

CONSUMERS ENERGY COMPANY	)	
Complainant,	)	
v.	)	Docket No. NOR 42142
CSX TRANSPORTATION, INC.	)	
Defendant.	)	

REBUTTAL SUPPLEMENTAL EVIDENCE OF COMPLAINANT

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Dated: April 13, 2017

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DAVID MAUGHAN VERIFIED STATEMENT

EXHIBITS

ACRONYMS

The following acronyms are used:

AEI	Automatic Equipment Identifier
AEO	2015 Annual Energy Outlook Update Forecast
ATC	Average Total Cost
BNSF	BNSF Railway Company
BRC	Belt Railway Company of Chicago
CAGR	Compounded Annual Growth Rate
CAPM	Capital Asset Pricing Model
CERR	Consumers Energy Railroad
CSXT	Defendant CSX Transportation, Inc.
DCF	Discounted Cash Flow
EIA	Energy Information Administration
FED	Failed/Dragging Equipment Detector
IPO	Initial Public Offering
MMM	Maximum Markup Methodology
NS	Norfolk Southern Railway Company
PIPE	Private Investment in Public Equity
PRB	Powder River Basin
RCAF-A	Rail Cost Adjustment Factor, adjusted for productivity
R/VC	Revenue-to-Variable Cost
RTC	Rail Traffic Controller Model
S&P	Standard & Poor's
SAC	Stand-Alone Cost
SARR	Stand-Alone Railroad
SEC	U.S. Securities and Exchange Commission
SEO	Seasoned Equity Offering
TIH	Toxic Inhalation Hazard
URCS	Uniform Railroad Costing System

CASE GLOSSARY

The following short form case citations are used:

AEPCO 2011	*Ariz. Elec. Power Coop., Inc. v. BNSF Ry. & Union Pacific R.R.*, STB Docket No. 42113 (STB served Nov. 22, 2011)
AEP Texas	*AEP Tex. N. Co. v. BNSF Ry.*, Docket No. 41191 (Sub-No. 1) (STB served Sept. 10, 2007)
Coal Rate Guidelines or *Guidelines*	*Coal Rate Guidelines, Nationwide*, 1 I.C.C.2d 520 (1985), *aff'd sub nom. Consolidated Rail Corp. v. United States*, 812 F.2d 1444 (3d Cir. 1987)
CP&L	*Carolina Power & Light Co. v. Norfolk S. Ry.*, 7 S.T.B. 235 (2003)
Duke/NS	*Duke Energy Corp. v. Norfolk S. Ry.*, 7 S.T.B. 89 (2003)
DuPont/NS	*E.I. DuPont De Numours and Co. v. Norfolk S. Ry.*, Docket No. 42125 (STB served March 24, 2014, updated Oct. 3, 2014)
Ex Parte No. 715	*Rate Regulation Reforms*, Ex Parte No. 715 (STB served July 18, 2013)
FMC	*FMC Wyo. Corp. v. Union Pac. R.R.*, 4 S.T.B. 699 (2000)
Major Issues	*Major Issues in Rail Rate Cases*, Ex Parte No. 657 (Sub-No. 1) (STB served Oct. 30, 2006)
PPL Montana	*PPL Mont., LLC v. Burlington N. & Santa Fe Ry.*, 5 S.T.B. 1105 (2001)
Sunbelt	*Sunbelt Chlor Alkali Partnership v. Norfolk S. Ry.*, Docket No. 42130 (STB served June 20, 2014)
TMPA	*Texas Mun. Power Agency v. Burlington N. & Santa Fe Ry.*, 6 S.T.B. 573 (2003)
TPI	*Total Petrochemicals & Refining USA, Inc. v. CSX Transp., Inc.*, Docket No. 42121 (Complaint filed May 3, 2010)

WFA I	*Western Fuels Ass'n, Inc. & Basin Electric Power Coop. v. BNSF Ry.,* STB Docket No. 42088 (STB served Sept. 10, 2007)
WFA II	*Western Fuels Ass'n, Inc. & Basin Electric Power Coop. v. BNSF Ry.,* Docket No. 42088 (STB served Feb. 18, 2009)
WPL	*Wisconsin Power & Light Co. v. Union Pac. R.R.,* 5 S.T.B. 955 (2001)
WTU	*West Tex. Utils. Co. v. Burlington N. R.R.,* 1 S.T.B. 638 (1996), *aff'd sub nom. Burlington N. R.R. v. STB*, 114 F.3d 206 (D.C. Cir. 1997)
Xcel I	*Public Service Co. of Colorado d/b/a Xcel Energy v. Burlington N. & Santa Fe Ry.,* 7 S.T.B. 589 (2004)

BEFORE THE
SURFACE TRANSPORTATION BOARD

CONSUMERS ENERGY COMPANY	)	
Complainant,	)	
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Defendant.	)	

PART I

COUNSEL'S ARGUMENT AND SUMMARY OF THE EVIDENCE

Consumers Energy Company ("Consumers"), the Complainant in this proceeding, submits this Rebuttal Supplemental Evidence in response to the Supplemental Reply Evidence ("CSXT Supp. Reply") filed on March 6, 2017 by Defendant, CSXT. As with its Opening Supplemental Evidence filed on January 23, 2017 ("Consumers Op. Supp."), Consumers' Rebuttal Supplemental Evidence is submitted in compliance with the Board's Decision served December 9, 2016 ("*December 9 Decision*").

INTRODUCTION

In its Opening Supplemental Evidence, Consumers modified the CERR traffic group in accordance with the standard set out by the Board in the *December 9 Decision*, presented evidence of adjustments to the previously-calculated stand-alone costs for the CERR that were warranted by the changes to the CERR traffic group, and presented additional evidence regarding the CERR's cost of capital that addressed the proper estimation of equity flotation costs. Consumers then updated the calculation of maximum reasonable rates for CSXT coal service to the Campbell Generating Station under the *Guidelines*' SAC Constraint, which showed that Consumers remains entitled both to significant prescriptive rate relief, and to an award of reparations (plus interest) for overcharges dating back to January 1, 2015.[1]

CSXT's Supplemental Reply accepted Consumers' modified merchandise traffic group and responded to Consumers' resulting SAC adjustments, largely by reiterating claims raised in its earlier Reply Evidence that previously were rebutted by Consumers. CSXT also challenged Consumers' evidence of equity flotation costs for the CERR, and repeated its denial that Consumers is due any rate relief or reparations.

Herein, Consumers responds to each of the substantive points raised by CSXT in its Supplemental Reply, demonstrating that CSXT's arguments and

[1] *See* Consumers Op. Supp. at 5-6.

counter-evidence lack merit and/or data foundation. As in earlier phases of the case, CSXT continues to promote extreme and unsupported positions in an effort to justify unit train coal rates that exceed 500% of the variable cost of service. Consistent with the *December 9 Decision* and Consumers' Opening Supplemental Evidence, this Rebuttal only includes those parts of the now-standard evidentiary format that are affected by the adjustments made and evidence submitted pursuant to the *December 9 Decision*; *i.e.,* Parts I, III-A, III-B, III-C, III-D, III-F, III-G and III-H.

ARGUMENT

CSXT's Reply Argument – and much of its Supplemental Reply Evidence – addresses three (3) principal points that are not simply repetitions of CSXT's March 7, 2016 Reply Evidence positions: (1) Consumers' traffic group modifications in response to the *December 9 Decision*; (2) public funding of the construction of two (2) bridges used by the CERR to serve its hypothetical traffic group; and (3) Consumers' calculation of the estimated cost of raising the equity portion of the CERR's overall capital requirements. As summarized below, CSXT accepts the modified CERR traffic group, and its arguments regarding bridge and equity flotation costs are without merit.

A. TRAFFIC GROUP

CSXT begins its Argument with a claim that the traffic group modifications made by Consumers in its Opening Supplemental Evidence[2] did not comply with the *December 9 Decision*, principally because the CERR still would not be handling *all* of the traffic of each *shipper* whose freight was included in the group,[3] and because the modifications did not specifically account for the handling of random loaded cars that were "bad-ordered" by the origin carrier (BNSF) prior to interchange with the CERR.[4] After lodging these objections, however, CSXT accepts Consumers' modified traffic group for purposes of this case and the carrier's Supplemental Reply.[5] Since CSXT's acceptance of the modified group moots it objections, there is no need for Consumers to devote extensive attention to them here. In the interest of a complete record, however, several brief rebuttal points are in order.

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[2] *See* Consumers Op. Supp. at III-A-5-13.

[3] CSXT Supp. Reply at I-4-7.

[4] *Id.* at I-7-8.

[5] *Id.* at I-8. CSXT claims that further discussion regarding the merchandise trains could jeopardize the Board's ability to meet the three-year statutory deadline described in 49 U.S.C. § 11701(c). CSXT Supp. Reply at 1-8-9. CSXT's point is irrelevant to this proceeding, as the Board has consistently held that the limitation does not apply to rate cases initiated by complaint. *See, e.g., DuPont/NS* (STB served Sept. 11, 2012) at 2; *WFA II* at 9. Interpreting it differently contravenes Board precedent and would produce an "absurd, unfair, and seemingly unconstitutional result." *AEP Texas* (STB served Nov. 13, 2006) at 2-3. *See also, Complaints Filed Pursuant to the Savings Provisions of the Staggers Rail Act of 1980*, 367 I.C.C. 406, 412 (1983).

First, while CSXT attempts to spin the requirements of the *December 9 Decision* to suit its claims – turning what at most were observations into "principles"[6] – the Board's actual directive was clear: "once a SARR elects to serve a certain subset of traffic – by customer, commodity, route, service type, *or some combination thereof* – the SARR must serve all of that subset of traffic consistently and without regard to how it is tendered."[7] As Consumers explained, its modified, selected subset of actual CSXT traffic was determined by *route* and by *service type*, with the latter defined by reference to the same {

}.[8] Consumers described in detail both how its original traffic selection process functioned, and the steps taken to modify the traffic group to conform to the *December 9 Decision.*[9]

Second, there is nothing remarkable or inconsistent with SAC theory about a SARR that does not handle 100% of a given shipper's movements of a

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[6] *Id.* at I-2.

[7] *December 9 Decision* at 19 (emphasis supplied).

[8] *See* Consumers Op. Supp. at III-A-4-11. In its Supplemental Reply, CSXT questioned whether the same base year train identification numbers could be relied upon in subsequent years of the DCF period (CSXT Supp. Reply at I-6), but this criticism is misplaced. It is well-settled that a complainant can assume that base year traffic will continue to move over the SARR in the same manner over the full SAC period. *CP&L,* 7 S.T.B. at 250; *WTU,* 1 S.T.B. at 662.

[9] Consumers Op. Supp. at III-A-5-12.

particular commodity.[10] Especially in cases where the complainant's traffic group did not consist entirely of coal shipments moving in unit trains, the Board previously has approved without comment traffic groups that included shipments of a particular commodity (*e.g.,* agricultural products) tendered by a company in trainloads, where the same company undoubtedly also shipped the same commodity in carloads that were not handled by the SARR.[11] Even in cases dominated by unit train coal traffic, the Board has approved traffic groups that, *e.g.,* included trains originating in the PRB that exit that region to the south, but left out trains that move north, even though they traversed tracks replicated by the SARR and ultimately may have served the same utilities. *See, e.g., Xcel I*, 7 S.T.B. at 600; *TMPA*, 6 S.T.B. at 587-588.

Third, there is no serious basis for CSXT's novel theory that Consumers' modified CERR traffic group is required to account specifically for the handling of random bad-ordered Campbell coal cars that are set-out for repairs by BNSF before returning to service. By CSXT's own reckoning, these represent less than two-tenths of one percent of the cars handled by the CERR during the

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[10] *See* CSXT Supp. Reply at I-6-7. CSXT suggests that of the more than 9,300 trains included in the modified CERR traffic group, 75 involve shipments of less than all of the involved shippers' traffic.

[11] *See, e.g., FMC*, 4 S.T.B. at 725, 733-734. This is unsurprising, as it is standard practice for SAC complainants to assemble traffic groups based on routing and efficiency considerations using the incumbent's traffic data, not on the basis of shipper identities. *See, e.g., TPI* at 40, 202.

base year.[12] This unprecedented claim was thoroughly discredited by Consumers on Rebuttal,[13] where it was shown, *inter alia*, that the traffic data produced by CSXT in discovery did not even allow for the identification of bad-ordered cars,[14] and CSXT's *post hoc* explanation of how bad-ordered Campbell cars supposedly are handled is not supported by its own data and workpapers.[15] As explained by Consumers' expert witness John Orrison – formerly an Assistant Vice President at BNSF – that carrier's bad-order practice is to return the loaded car(s) back to the consignee (Consumers here) on the next available train at the most efficient *BNSF* crew change point or major yard.[16] The formerly bad-ordered car(s) then would be interchanged to CSXT for delivery as part of a typical Campbell unit train. Under SAC theory, the CERR would handle the repaired car(s) in the same manner, receiving them from BNSF as part of a complete loaded train.

The foregoing notwithstanding, there no longer is any disagreement between the parties as to the basic parameters of the CERR traffic group,[17] *except* for CSXT's continued and unwarranted exclusion of certain petcoke trains, and merchandise trains moving between Calumet Park and Curtis, which were

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[12] CSXT Supp. Reply at I-7-8.

[13] Consumers Reb. at III-C-85-96.

[14] *Id.* at III-C-86-87.

[15] *Id.* at III-C-90-96.

[16] *Id.* at III-C-87-88, 94.

[17] *See* CSXT Supp. Reply at I-8.

addressed in detail in Consumers' Rebuttal and are among the subjects of Part III-A, *infra*.[18] In the same regard, CSXT also includes three (3) "alternative" scenarios for purposes of its proposed SAC analyses: (1) the modified CERR traffic group without the petcoke and Calumet Park-Curtis trains; (2) the modified CERR traffic group excluding only the petcoke trains; and (3) the modified CERR traffic group presented in Consumers' Opening Supplemental Evidence.[19] Because, as shown in Consumers' Rebuttal and summarized *infra*, CSXT's remaining traffic exclusions are without merit, the carrier's first two (2) "alternatives" are unnecessary and serve only to clutter an already extensive record. Consumers will not exacerbate the problem by rebutting these separately. Its updated SAC analysis is focused on the modified CERR traffic group presented in Consumers' Opening Supplemental Evidence, which demonstrably represents the best evidence of record.

B. BRIDGE COSTS

CSXT challenges Consumers' May 20, 2016 Rebuttal Evidence demonstrating that the Chicago Sanitary Canal and Calumet Sag Channel bridges were publicly funded, and thus are not the responsibility of the CERR, with what it claims is an "historical record" showing that "any public funds expended for these bridges were for the replacement of preexisting railroad bridges" that CSXT's

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[18] *See* Part III-A-2-4.

[19] CSXT Supp. Reply at I-9-10.

predecessor(s) must have paid for.[20] In fact, as Consumers details in Part III-F of this Rebuttal Supplemental Evidence, the "historical record" shows just the opposite.[21]

With respect to the Chicago Sanitary Canal Bridge, CSXT correctly noted in its Reply Evidence that the original fixed span first was put into service in 1901.[22] Where it erred – and continues to err – is in concluding that it was a "railroad-built bridge."[23] As the Railway Gazette article that Consumers introduced on Rebuttal, and CSXT does not challenge as an authentic source,[24] clearly stated:

> The bridge now being built over the Sanitary and Ship canal, at Campbell avenue and Thirty-first street, Chicago, is composed of four double track single leaf Scherzer rolling lift bridges, placed alternately side by side.
>
> It will carry four tracks of the Pittsburg, Cincinnati, Chicago & St. Louis, two of the Chicago Terminal Transfer and two of the Chicago Junction Railway. ***The bridge is being built and paid for by The Sanitary District of Chicago, under an agreement with the railway companies to provide a***

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[20] CSXT Supp. Reply at I-10-11, III-F-5-10.

[21] *See* Part III-F-7-12, *infra*. Part III-F also points out a number of other road property cost over-statements included in CSXT's Supplemental Reply, which previously appeared in the carrier's March 7, 2016 Reply Evidence and were addressed in Consumers' Rebuttal Evidence.

[22] CSXT Reply at III-F-90.

[23] *Id.*

[24] The article is quoted in full relevant part at III-F-8-9, *infra.*

> ***moveable bridge of an efficient design subject to their approval.*** The Sanitary District also pays the railways such a sum of money as will draw interest sufficient to pay the expenses of maintenance and operation of the bridge.[25]

Consumers clearly has met its burden of demonstrating that the Sanitary Canal Bridge was built (and improved) using public funds. Therefore, the CERR does not have to bear the cost of construction.

Likewise, the public record supports Consumers' prior showing that CSXT's predecessors were not required to pay for construction of the Calumet Sag Channel Bridge. Court litigation in the early part of the 20th Century resulted in rulings that both compensated the railroads for property taken to build the bridge, and provided for public construction of the bridge itself. *See Sanitary Dist. of Chicago v. Chicago & A.R. Co.*, 108 N.E. 2d 312, 313-316 (1915). CSXT argues in its Supplemental Reply that the original bridge spanned a feeder canal that was in use in 1851 (before the railroad was built), and was later widened to create the Calumet Sag Channel.[26] However, as Consumers shows in Part III-F, *infra*, the Calumet Sag Channel Bridge in fact was *not* built over the former feeder canal that CSXT described, and the original canal itself was so narrow and shallow that any bridge that was installed would have been very small and inexpensive.[27] On balance, the better evidence – including a published court decision – favors the

[25] *Railway Gazette* at 565 (emphasis supplied).

[26] CSXT Supp. Reply at III-F-9.

[27] *See* III-F-9-12, *infra*.

conclusion that CSXT's predecessor(s) did not bear the cost of constructing or improving the Calumet Sag Channel Bridge, which means that those costs should be excluded from the CERR road property investment as well.

C. EQUITY FLOTATION COST

Consumers' Opening Supplemental Evidence showed how a requirement that the CERR absorb an equity flotation cost in this case was inconsistent with SAC theory, and represented an unexplained departure from prior agency precedent that apparently had not been presented to – and certainly was not addressed by – the Board in *Sunbelt* and *TPI*. Consumers Op. Supp. at III-G-1-7. Consumers also demonstrated that CSXT's proposed 6% IPO cost was both analytically flawed and unsupported by prior cases,[28] and that an optimally efficient, low cost railroad with the attributes of the CERR would use a private placement to raise its equity capital, and could do so at a cost of 0.95%.[29]

While arguing that any challenge to the notion that a SARR should be forced to incur an equity flotation cost already has been "discredited,"[30] CSXT's Supplemental Reply acknowledges that a private placement would be a reasonable option for the CERR,[31] and does not dispute Consumers' evidence that

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[28] Consumers Op. Supp. at III-G-13-18. *See also*, Consumers Reb. at III-G-3-10.

[29] *See* Consumers Op. Supp. at III-G-7-13; Maughan V.S. at 10-19.

[30] CSXT Supp. Reply at III-G-1.

[31] *Id.* at I-12-13, III-G-6-7.

the flotation cost for such a placement would be less than 1%. In these respects, CSXT concedes the well-established rule that a SARR is entitled to use the lowest cost, feasible alternative for each element of the SAC analysis.[32] Instead, CSXT challenges Consumers' equity flotation cost evidence on a different ground; namely, that because of alleged differences between a private placement and a public offering, an undetermined upward adjustment to the CERR's cost of equity is necessary in the case of a private placement. According to CSXT, "Consumers cannot assume both low direct flotation costs from a private placement and the relatively low industry-wide cost of capital, which is based on public markets, in the SAC analysis."[33] As shown in Part III-G, *infra*, CSXT's objections are without merit.

First, Consumers' showing that prior agency precedent precludes the imposition of a separate flotation cost additive in this case cannot be cast as a "discredited" argument when it has not yet been addressed by the Board.[34]

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[32] *TPI* at 62, 86; *AEPCO 2011* at 46; *TMPA*, 6 S.T.B. at 585-586; *Coal Rate Guidelines*, 1 I.C.C. 2d at 542. The same rule refutes CSXT's argument for adoption of an average IPO cost of 6% for the CERR (*see* III-G-6-7), and its claim elsewhere that flotation costs for the CERR should not be based on the actual experience of CSXT and other carriers in raising equity, or the Board's predecessor's treatment of those costs in calculating the industry cost of capital. CSXT Supp. Reply at III-G-4. To deny the CERR access to lower costs enjoyed by the defendant and other real-world railroads solely by virtue of its status as a "new, stand-alone entrant" would constitute an improper entry barrier. *See* III-G-3-4, *infra*.

[33] CSXT Supp. Reply at III-G-7; Exh. III-G-1 at 11.

[34] III-G-1-3.

Applicable cases established that the industry average cost of capital already reflects an embedded cost of raising equity, and the Board's *Sunbelt* and *TPI* decisions never explained why those cases should not be dispositive on the issue. Absent a reasoned explanation, any summary dismissal of Consumers' argument would be arbitrary and capricious.[35]

Second, CSXT's argument that CERR equity raised through a private placement would require some undisclosed adjustment to the cost of equity runs headlong into a second established Board rule: the agency-determined average railroad industry cost of equity must be used in SAC analyses.[36] The Board and its predecessor repeatedly have rejected both shipper arguments for a lower equity cost, and railroad calls for a higher cost in various circumstances,[37] and the agency has indicated that it will adhere to the rule even in cases where the defendant is a carrier – BNSF – whose own cost of equity is not considered in calculating the industry average cost of capital.[38] The same rule precludes an upward cost of equity adjustment to favor CSXT here.[39]

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[35] *Id.* at 3-5.

[36] *Id.* at 11-12.

[37] *See, e.g., WPL*, 5 S.T.B. at 984; *Omaha Pub. Power Dist. v. Burlington N. R.R.*, 3 I.C.C. 2d 123, 147-148 (1986).

[38] *See Railroad Cost of Capital – 2010*, Ex Parte No. 558 (Sub-No. 14) (STB served Oct. 3, 2011) at 8.

[39] *See* III-G-13-14, *infra*; *WPL*, 5 S.T.B. at 982-984 (rejecting the defendant railroad's proposal for a "real options" additive to the average cost of capital).

Third, as Consumers' expert witness David Maughan explains in his Rebuttal Verified Statement, the notion that "investors in private placement demand a *higher* return on equity"[40] is a fallacy. Statistical comparisons over time show no consistent pattern of higher returns for private equity as compared to public investment (in many years, private returns have been considerably lower), and the kinds of sophisticated private equity investors that would be attracted to an entity such as the CERR (*e.g.,* pension funds, endowments, etc.) have both full access to all relevant information about the investment, and investment outlooks that are long-term in nature, making relative and temporary illiquidity irrelevant.[41]

Finally, even assuming *arguendo* that the CERR would raise its equity publicly, the law is clear that it would be entitled to access equity capital at the lowest cost that was reasonable and supportable. In its recent *TPI* and *Sunbelt* decisions, the Board determined that public issue flotation costs would be no more than about 2%,[42] but as Consumers demonstrated in its Opening Supplemental Evidence[43] and CSXT did not dispute,[44] the actual Facebook IPO figure endorsed in *Sunbelt* was 1.1%. Thus, while the better evidence of record clearly supports

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[40] CSXT Supp. Reply at I-13 (emphasis in original).

[41] Maughan R.V.S. at 4-7. *See also*, III-G-14-21, *infra.*

[42] *TPI* at 219; *Sunbelt* (STB served June 30, 2016) at 31.

[43] Consumers Op. Supp. at III-G-14 and n.28.

[44] *See* CSXT Supp. Reply, Exh. III-G-2, which uses the 1.1% cost for the Facebook IPO.

Consumers' 0.95% private placement cost, the maximum flotation cost that could be assigned to the CERR in any event is 1.1%.[45]

D. UPDATED CALCULATIONS OF SAC AND MAXIMUM REASONABLE RATES

The modest updates and adjustments to the CERR's operating expenses and road property investment costs as detailed in Parts III-C, III-D and III-F, *infra*, result in minor changes to the final SAC percentages and maximum rates for Consumers' Campbell coal shipments, which are set out in Part III-H and Exhibits III-H-1 and III-H-2. As shown therein, from the First Quarter of 2015 through the First Quarter of 2016, the adjusted maximum lawful rates for CSXT service to Campbell are as follows:[46]

Quarter	Maximum Rate Per Ton
1Q2015	$10.37
2Q2015	$10.48
3Q2015	$10.44

[45] *See, e.g., Sunbelt* at 79; *AEPCO 2011* at 33, 46; *WFA I* at 132-133; *Duke/NS*, 7 S.T.B. at 201-204.

[46] *See* Table III-H-5, *infra* and Consumers Reb. Tables II-A-1 through II-A-5. Tables III-H-4 and III-H-5, *infra*, show separate maximum rate calculations for each of the two (2) car types used by CSXT in providing service to Consumers. By agreement of the parties, however, variable costs as reported in Consumers Reb. Tables II-A-1 through II-A-5 reflected a stipulated blend of cars, thus producing a single variable cost per ton for each quarter. The maximum rates shown herein are calculated based on those costs, and the ratios set forth in Table III-H-3, *infra*.

4Q2015	$10.26
1Q2016	$11.76

Commencing with the Second Quarter of 2016 and extending through December 31, 2024, the lawful maximum rates for the subject service are the *lesser* of (1) the rate equivalents to the R/VC ratios set forth below, or (2) the Revenue Adequacy maximum rate.[47]

Year	Maximum R/VC Ratio
2016	429.3%
2017	315.1%
2018	330.6%
2019	332.7%
2020	306.6%
2021	303.2%
2022	283.8%
2023	286.2%
2024	255.4%

[47] *See* Table III-H-3, *infra*. As shown in Consumers' Rebuttal Evidence and summarized in its Brief (at 3, 51-54), the Revenue Adequacy maximum rate for any quarter is { }, adjusted by the net increase (if any) in the RCAF-A from the First Quarter of 2015 to the subject quarter.

CONCLUSION

Upon consideration of the full record in this proceeding, including this Rebuttal Supplemental Evidence, the Board should issue a decision finding that CSXT possesses market dominance under 49 U.S.C. § 10707 over the transportation to which the challenged rates apply, and that those rates exceed a maximum reasonable level in violation of 49 U.S.C. § 10701(d). Pursuant to 49 U.S.C. §§10704 and 11704, CSXT should be ordered to establish and maintain rates for coal transportation service to Campbell at levels no higher than those shown in Tables III-H-3 through III-H-5, *infra,* for each of the years 2015 through 2024, and to pay Consumers reparations equal to the difference between freight charges calculated in accordance with such rates, and the charges actually paid by Consumers on all shipments moving under Tariff CSXT-13952 from January 1, 2015 through the effective date of the prescription order, together with legally applicable interest.

Respectfully submitted,

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Dated: April 13, 2017

CERTIFICATE OF SERVICE

I hereby certify that this 13th day of April, 2017, I caused copies of the Rebuttal Supplemental Evidence of Complainant Consumers Energy Company to be served by hand upon counsel for Defendant CSX Transportation, Inc. as follows:

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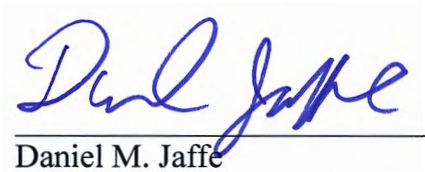

Daniel M. Jaffe

BEFORE THE
SURFACE TRANSPORTATION BOARD

CONSUMERS ENERGY COMPANY	)	
Complainant,	)	
v.	)	**Docket No. NOR 42142**
CSX TRANSPORTATION, INC.	)	
Defendant.	)	

PART III

STAND-ALONE COST

III. A. STAND-ALONE TRAFFIC GROUP

As noted *supra*, following a meritless argument challenging Consumers' compliance with the *December 9 Decision*, CSXT accepted Consumers' removal of 897 carload merchandise trains from the 2014 base year traffic group, 210 trains from the 1Q15 group, and 24 trains from the peak period, in response to the Board's directive.[1] However, CSXT made additional adjustments to the revised CERR traffic group by removing 114 petcoke trains,[2] and 535 trains[3] that CSXT claims could not be served by the CERR in a manner

[1] *December 9 Decision* at 19-20.

[2] CSXT Supp. Reply e-workpaper "CERR Base Year Trains_Supp_Reply.xlsx" at tab "Train" cell AJ4.

[3] CSXT Supp. Reply e-workpaper "CERR Base Year Trains_Supp_Reply.xlsx" at tab "Train" filter for records where column AI=1 and

consistent with how CSXT serves them today, based on arguments raised in its Reply Evidence.[4] CSXT also applied the same formulae used in its Reply Evidence to project overall traffic and revenues for the CERR.[5] As summarized in this Part III-A, CSXT's additional traffic adjustments are without merit, and its forecasting approach is flawed.

1. Adjusted CERR Traffic Group

As Consumers demonstrated in painstaking detail in its Rebuttal Evidence, CSXT's proposed exclusion of 114 petcoke trains from the CERR traffic group is predicated on misrepresentations of its own traffic data, and its failure to disclose known errors in that data.[6] CSXT claimed (and apparently still claims[7]) that the petcoke trains in question do not travel over lines replicated by the CERR in the real world.[8] As Consumers already has demonstrated, however, the train sheet data produced by CSXT in discovery, which are not disputed by CSXT as a reliable traffic movement source elsewhere on the CERR system, are

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column BN=0. Thirty-eight (38) of the 573 trains (*see* cell AI4) CSXT removed from Consumers' original Opening train list in CSXT's original Reply Evidence were a subset of the 897 carload merchandise trains (*see* cell BN4) that Consumers removed in its Opening Supplemental Evidence.

[4] CSXT Supp. Reply at 2-3.

[5] *Id.* at 3-4.

[6] *See* Consumers Reb. at III-A-14-23.

[7] CSXT does not acknowledge – much less challenge – Consumers' detailed Rebuttal Evidence on this point.

[8] CSXT Supp. Reply at III-A-2.

consistent with Consumers' inclusion of the trains in the traffic group.[9] Other reliable data (such as records of trackage rights payments to Norfolk Southern Railway) also contradict CSXT's claims concerning the trains' real world routings.[10] The petcoke trains therefore remain in the CERR traffic group in this Rebuttal Supplemental Evidence.

Also properly included in the CERR group are the trains moving between Calumet Park and Curtis that CSXT proposed to exclude because the CERR allegedly would provide "inferior service" compared to that offered by CSXT.[11] As Consumers showed in its Rebuttal Evidence, the "inferiority" alleged by CSXT consisted solely of a *de minimis* difference in average transit times between the CERR operating plan and CSXT's historic record. However, CSXT's averaging approach failed to recognize several other key metrics of service quality (including the much smaller spreads between fastest and slowest times for given routes on the CERR), and ignored entirely the matter of service *reliability* as an indicator of quality.[12] Additionally, CSXT's conclusions regarding its calculated transit time differentials depended entirely on the arbitrary Board requirement that 30 minutes of "dwell time" be assigned to every hypothetical interchange of traffic

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[9] Consumers Reb. at III-A-32-35.

[10] *See, e.g., id.* at III-A-27-30.

[11] CSXT Supp. Reply at III-A-2-3.

[12] *See, e.g,* Consumers Reb. at III-A-50-54.

between CSXT and the CERR.[13] Properly evaluated, the CERR's planned service between Calumet Park and Curtis would be of equivalent or superior quality to that currently provided by CSXT, so CSXT's proposal to exclude the affected trains should be rejected.[14]

Apparently aware of the tenuous nature of its proposed exclusions of the petcoke and Calumet Park-Curtis trains, CSXT in its Supplemental Reply proffers two (2) "alternative" traffic scenarios to the one advanced in its Reply Evidence. One (1) includes the Calumet Park-Curtis trains (but not the petcoke trains), and the other is "identical" to Consumers' Opening Supplemental traffic group.[15] CSXT includes volume and revenue estimates for each "alternative." Consumers respectfully submits that the record in this case already is substantial in scope and complexity, and would not materially benefit from Consumers presenting supplemental calculations to rebut each of CSXT's defective hypothetical scenarios. CSXT has accepted Consumers' traffic group modifications in response to the *December 9 Decision*, and the traffic group defended by Consumers' Rebuttal Evidence represents the better evidence of

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[13] *Id.* at III-A-36-37. As Consumers showed, even a modest reduction in this dwell time presumption eliminates CSXT's claimed transit time differential entirely.

[14] *Id.* at III-A-38-49.

[15] CSXT Supp. Reply at III-A-3.

record prior to that Decision. Herein, therefore, Consumers presents adjusted volumes, revenues and cost data that correspond to its modified traffic group.[16]

2. Adjusted CERR Traffic Volumes

CSXT's Supplemental Reply employs the same forecasting methodology for general freight traffic and non-issue coal traffic that was used in CSXT's Reply Evidence.[17] As Consumers showed on Rebuttal, that methodology is flawed. Specifically, for the 2020-2024 time period, CSXT's EIA-AEO approach should be rejected in favor of the Compounded Annual Growth Rate ("CAGR") methodology applied by Consumers. The CAGR method has been endorsed by the Board in numerous prior cases,[18] and is derived from CSXT's own internal forecasts. In contrast, CSXT's EIA-based formula has never been accepted by the Board, does not correlate to the CERR traffic base on a commodity level, and is prone to manipulation.[19] It is unreliable and should be rejected. Also without merit are CSXT's proposed forecast for intermodal traffic,

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[16] This is the same modified traffic group that Consumers submitted with its Opening Supplemental Evidence, including the 114 petcoke trains and 535 Calumet Park-Curtis trains that CSXT included as its "Alternative 2."

[17] CSXT Supp. Reply at III-A-4.

[18] Consumers Reb. at III-A-68, *citing Sunbelt* at 173; *DuPont/NS* at 261; *FMC*,
4 S.T.B. at 730.

[19] *Id.* at III-A-68-70.

and its forecast adjustment for crude oil, which are not mentioned in CSXT's Supplemental Reply but are reflected in its revised traffic forecast for the CERR.[20]

Consumers' updated Table III-A-1, below, shows the CERR traffic volumes by year as supported by the better evidence of record, alongside CSXT's unreliable projections as set out in its Supplemental Reply.

Table III-A-1
Comparison of Forecasted CERR Traffic Volumes

Year (1)	Consumers Opening Supplemental Carloads/Containers 1/ (2)	CSXT Supplemental Reply Carloads/Containers 2/ (3)
1. 2015	758,805	733,365
2. 2016	762,010	698,922
3. 2017	839,925	714,878
4. 2018	867,109	727,040
5. 2019	902,976	761,881
6. 2020	951,131	780,430
7. 2021	998,282	793,389
8. 2022	1,052,569	811,423
9. 2023	1,105,231	824,665
10. 2024	1,170,953	846,013

1/ Source: Consumers Op. Supp. e-workpaper "Summary of CERR Traffic Volumes and Revenues – Supplemental.xlsx," tab "Summary," cells M10 to M19.
2/ Source: CSXT Supp. Reply e-workpaper "Summary of CERR Traffic Volumes and Revenues_Supp_Reply.xlsx," tab "Summary_Vol_Rev," cells M25 to M34.

[20] *See id.* at III-A-70-72.

3. Adjusted CERR Revenues

As CSXT states in its Supplemental Reply, the parties now are using the same basic methodology and indices to calculate revenues for the modified CERR traffic group.[21] However, CSXT also continues to apply the same unfounded adjustments to the ATC methodology for allocating revenues on cross-over traffic that it used in its Reply Evidence.[22] As Consumers showed on Rebuttal, there is no validity to CSXT's charge that Consumers' application of the judicially approved *Ex Parte No. 715* ATC methodology biases the revenue divisions. Under the Board's methodology, CSXT is properly compensated for originating and/or terminating cross-over movements,[23] and the CERR is not unfairly overcompensated for switching that it does not perform.[24] Moreover, the various "movement specific" cost adjustments proposed by CSXT are unnecessary and violate long-standing Board precedent,[25] and the fixed costs allocated to the CERR accurately correspond to the line-haul functions that the CERR performs,

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[21] CSXT Supp. Reply at III-A-5 and n.16.

[22] *Id.* In addition, CSXT made a calculation error in its Supplement Reply carload ATC division calculations that leads to a small understatement in CERR revenues. Specifically, CSXT used two different formulae in calculating total movement R/VC ratios in developing its carload ATC divisions. *Compare* cells BX5 to BX467, *with* cells BX469 to BX3822 in CSXT Supp. Reply e-workpaper "CERR Divisions_Supp_Reply.xlsx," tab "Carloads."

[23] Consumers Reb. at III-A-82-84. As Consumers noted, CSXT's position on this point is the opposite of the position that it took on the same issue in *TPI*. *Id.* at 84.

[24] *Id.* at III-A-85-86.

[25] *See id.* at III-A-86-96; *Major Issues* at 22, 58.

which are the same as those performed by CSXT, as distinguished from its arms-length affiliate. [26] The Board properly rejected CSXT's arguments for adjustments to the ATC methodology in *TPI*,[27] and should do likewise here. Similarly, there was no merit to CSXT's belated attempt to "correct errors" in its own special study of density on the CSXT system, a study on which Consumers already had relied, when the supposed "errors" simply were results that CSXT no longer favored.[28]

Table III-A-2 below shows the updated annual CERR revenues as correctly calculated by Consumers, as compared to the artificially understated revenues offered by CSXT in its Supplemental Reply.

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[26] *Id.* at III-A-97-103.

[27] *See TPI* at 42-44. As noted *supra,* in that case CSXT was urging adjustments that would allocate *more* revenue to the bridge segments of cross-over movements, a result opposite to that which the carrier seeks in this proceeding. Its claimed (and rejected) justification, however, basically was the same as that advanced here.

[28] Consumers Reb. at III-A-104-109.

Table III-A-2
Comparison of Forecasted CERR Revenues

Year (1)	Consumers Opening Supplemental Revenues 1/ (2)	CSXT Supplemental Reply Revenues 2/ (3)
1. 2015	$136,504,338	$102,785,616
2. 2016	$118,690,165	$86,927,638
3. 2017	$152,653,854	$104,655,629
4. 2018	$153,251,152	$100,689,707
5. 2019	$158,047,079	$104,599,766
6. 2020	$173,440,366	$113,902,856
7. 2021	$179,867,338	$115,522,641
8. 2022	$193,734,521	$123,410,944
9. 2023	$194,698,444	$118,907,763
10. 2024	$215,159,182	$131,632,441

1/ Source: Consumers Op. Supp. e-workpaper "Summary of CERR Traffic Volumes and Revenues – Supplemental.xlsx," tab "Summary," cells N10 to N19.
2/ Source: CSXT Supp. Reply e-workpaper "Summary of CERR Traffic Volumes and Revenues_Supp_Reply.xlsx," tab "Summary_Vol_Rev," cells N25 to N34.

Consumers' final CERR traffic and revenue calculations for each year of the DCF period are detailed in Rebuttal Exhibit III-A-1.

III. B. STAND-ALONE RAILROAD SYSTEM

In its Supplemental Reply, CSXT agreed with Consumers that the modification of the CERR traffic group described in Part III-A allows for the removal of 2.22 miles of track in Barr Yard from the CERR system.[1] CSXT also acknowledged that the Cottage Grove overpass that it proposed in its Reply Evidence (and Consumers opposed on Rebuttal[2]) also was not necessary, which removes that minor issue from contention.[3] As noted below, however, CSXT continues to include 2 miles of unnecessary side track in its CERR system description, as well as 0.14 miles of unnecessary bad order track at Barr Yard.

1. Routes and Mileage

CSXT accepted the removal of 2.22 miles of track from Barr Yard as no longer necessary to serve the CERR traffic group. However, CSXT continued to *include* an additional 2-mile siding on the line segment between Porter and West Olive, near the Campbell Generating Station.[4] As Consumers demonstrated on Rebuttal, this side track is not needed by the CERR.

Consistent with established and Board-approved practice, Consumers developed the CERR's siding requirements using the RTC Model, and

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[1] CSXT Supp. Reply at III-B-1. *See also*, Consumers Op. Supp. at III-B-1-2.

[2] Consumers Reb. at III-B-8-9.

[3] CSXT Supp. Reply at III-B-1.

[4] *See* CSXT Supp. Reply e-workpaper "CERR Route Miles_Supp_reply.xlsx," tab "Tables," cells C45:E45.

employing the experience of its expert Mr. Orrison, who once served as Division Superintendent for CSXT on the Porter-West Olive line. The RTC Model run showed that even during the CERR's peak year, the additional siding proposed by CSXT would not be required. This was further confirmed by CSXT's own RTC run, which showed that the siding was never used by the Consumers trains.[5] This evidence demonstrates that the siding is not required, and it is not included in this Rebuttal Supplemental Evidence.

2. Track Miles and Weight of Track

Table III-B-1, below, shows the correct constructed track miles for the CERR as presented by Consumers, compared with the overstated miles included in CSXT's Supplemental Reply.

TABLE III-B-1
CERR CONSTRUCTED TRACK MILES

	Op. Supp.	Supp. Reply	Difference
Main line track – Single first main track[1/]	168.65	168.65	0.00
– Other main track[2/]	41.38	43.38	2.00
Total main line track	210.03	212.03	2.00
Interchange Tracks	10.66	10.66	0.00
Setout tracks and helper tracks	2.00	2.00	0.00
Yard tracks[3/]	9.07	9.21	0.14
Total track miles	**231.76**	**233.90**	**2.14**

[1/] Single first main track miles equal total constructed route miles, including the lead track to the Campbell Station and the Dolton Interchange track. This also includes 8.13 route miles of the BRC and the Buffington Connection.
[2/] Equals total miles for constructed second main tracks/passing sidings, including the BRC segment.
[3/] Includes all tracks in the Barr Yard.

Source: Consumers Reb. Supp. e-workpaper "2015 Ballast & subballast Worksheet_Supplemental Rebuttal.xlsx," tab "III-B Miles Table."

[5] Consumers Reb. at III-B-13-14.

3. Yards

As noted *supra*, the parties agree that 2.22 miles of track can be removed from Barr Yard. However, CSXT also continues to include 750 feet of bad order setout track at Barr Yard,[6] which Consumers has not included in its Rebuttal Supplemental Evidence for the same reasons as stated in its Rebuttal.[7]

4. Other

a. Joint Facilities

CSXT's Supplemental Reply includes alternative road property calculations for its two (2) modified traffic group scenarios, discussed in Part III-A. For the reasons set out there and in Part I, CSXT's "alternatives" needlessly clutter the record, and are not addressed independently in this Rebuttal Supplemental Evidence.

c. Turnouts, FEDs and AEI Scanners

The parties are in agreement that the removal of 2.22 miles of track from Barr Yard results in the removal of associated turnouts as well.

d. RTC Model Simulation of CERR Configuration

Consumers' Rebuttal Supplemental RTC Model simulations are addressed in Part III-C, *infra*.

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[6] *See* CSXT Supp. Reply e-workpaper "CERR Route Miles_Supp_reply.xlsx," tab "Tables," cells C49:E49 and tab "Yard Track Length," cell F18. 750 feet ÷ 5,280 feet per mile = 0.14 miles.

[7] Consumers Reb. at III-B-16.

III. C. STAND-ALONE RAILROAD OPERATING PLAN

The CERR's Rebuttal Supplemental operating plan is identical to its Opening Supplemental operating plan. Indeed, Consumers has made no adjustments from its Opening Supplemental Evidence, and it has not rerun the RTC Model for this Rebuttal Supplemental because none of CSXT's Supplemental Reply arguments or modifications warranted any further changes to the CERR's operating plan. Consumers addresses various claims and errors in CSXT's Supplemental Reply below.

As noted in its Opening Supplemental operating plan, Consumers removed 897 base year 2014, and 210 1Q2015 carload merchandise trains from the CERR traffic group.[1] As the change filtered into peak week/peak year train counts, Consumers removed 24 trains from its RTC Model train list and reran the model.[2] The peak period did not change, and Consumers addressed the results of the Opening Supplemental RTC Model in its Opening Supplemental Evidence at III-C-3-4.

Just as it did in Reply, CSXT has not followed the Board's standard evidentiary presentation outline or Consumers' Opening Supplemental, which provided more details than the Board's standard outline. Thus, CSXT's Part III-C

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[1] *See* Consumers Op. Supp. e-workpaper "CERR BASE YEAR TRAIN LIST DEVELOPMENT vF Supplemental.xlsx," tab "SumIncludedMerch," cells G67 and N67.

[2] *See* Consumers Op. Supp. e-workpaper "CERR BASE YEAR TRAIN LIST DEVELOPMENT vF Supplemental.xlsx," tab "Cerr Peak Trains," rows 263-283 and 291-293.

operating plan narrative begins with an introduction that rehashes CSXT's Reply arguments concerning delays that should be included in the RTC Model.[3] For simplicity, Consumers addresses the delay-related arguments immediately below.

Throughout its evidentiary presentations, Consumers has included the same 22 random outages/delays,[4] except that in its Opening Supplemental, Consumers determined that one of the outages was no longer required due to the reduction in traffic.[5] Consumers also included regular curfews at the 75th St. interlocking to accommodate commuter trains moving through Chicago during peak periods.[6] The rest of the CSXT lines that the CERR replicates do not carry Metra commuter traffic.

In its Reply, CSXT included 133 en route train delays,[7] and in its Supplemental Reply, CSXT continues to argue for the inclusion of delays based on its Reply criteria.[8] However, CSXT has reduced the number of delays by 20 to reflect the change in the traffic group that Consumers made, as well as the differences that CSXT continues to argue for in Supplemental Reply (*i.e.*, removal of petcoke trains and certain trains that it believes do not meet necessary service

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[3] *See* CSXT Supp. Reply at III-C-2-4.

[4] *See* Consumers Op. e-workpaper "Foreign Line Delays WORK.xlsx," tab "Peak Forgn Delays for RTC 54pct.," cells A5:T28.

[5] *See* Consumers Reb. e-workpaper "Foreign Line Delays Work RTC 54pct.xlsx."

[6] *See* Consumers Op. at III-C-74-75; Consumers Reb. at III-C-121.

[7] *See* CSXT Reply at III-C-26.

[8] *See* CSXT Supp. Reply at III-C-2-4.

standards).[9] In Rebuttal, Consumers provided an extensive refutation of CSXT's inclusion of additional delays, as well as the criticisms that CSXT leveled against the outages/delays that Consumers' experts selected for the RTC Model.[10] In its Supplemental Reply, CSXT has presented no further evidence to support its outages, nor would it have been appropriate to include such evidence at this point. Therefore, Consumers' delay/outage evidence is fully supported and feasible and continues to represent the best evidence of record. Consumers continues to use the same 21 delays it posited in its Opening Supplemental RTC Model.

1. General Parameters

CSXT provided updates to its Table III-C-5, Table III-C-7, Figure III-C-9, Table III-C-10, and Table III-C-11. CSXT provided the new tables largely without explanation. Instead, CSXT references its Reply Evidence, presumably for the substantive arguments underlying the data presentations. Consumers notes that Table III-C-5 relates to CSXT's argument that the permissible lengths of the CERR's growth trains are limited and therefore more growth trains should have been included,[11] a point that Consumers thoroughly refuted.[12] Table III-C-7 provided a traffic flow summary by general train type.[13]

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[9] *See* CSXT Supp. Reply at III-C-1 n.4 (noting that CSXT removed four peak period trains "due to their failure to meet CSXT service standards . . . .").

[10] *See* Consumers Reb. at III-C-6-52.

[11] *See* CSXT Reply at III-C-27-40.

[12] *See* Consumers Reb. at III-C-52-84.

[13] *See* CSXT Reply at III-C-45.

Figure III-C-9 relates to CSXT's arguments that the CERR should incur additional locomotive costs when it interchanges locomotives with other carriers or the residual CSXT that are unnecessary for CERR operations.[14] Again, Consumers thoroughly refuted CSXT's arguments on Rebuttal.[15] Table III-C-10 updates CSXT's calculation of road, helper, and yard locomotive quantities.[16] Consumers supported its procedures and refuted CSXT's methodology in its Rebuttal Evidence.[17] Consumers retains its locomotive calculation procedures in its Rebuttal Supplemental Evidence. Table III-C-11 updates CSXT's calculation of road, yard and helper crew quantities.[18] Consumers fully supported its own procedures and refuted CSXT's methodology for such calculations in its Rebuttal Evidence.[19] Therefore, Consumers has made no changes to its crew calculation procedures in its Rebuttal Supplemental Evidence.

b. Track and Yard Facilities

Based on Consumers' Opening Supplemental RTC Model[20] results, Consumers eliminated the fourth yard track in the Barr Yard.[21] CSXT accepted this change.[22]

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[14] *See* CSXT Reply at III-C-52.

[15] *See* Consumers Reb. at III-C-102-104.

[16] Because RTC does not model yard activities, yard locomotive requirements are calculated outside of the RTC Model in a separate analysis.

[17] *See* Consumers Reb. at III-C-102-109.

[18] *See* n.16, *supra*.

[19] *See* Consumers Reb. at III-C-127.

[20] *See* Consumers Op. Supp. e-workpaper "CERR Supplemental.zip."

c. Trains and Equipment

ii. Locomotives

(a) Road Locomotives

Based on Consumers' Opening Supplemental RTC Model and related statistical analysis, Consumers' experts determined that the CERR requires 13 road locomotives, which includes the application of the same spare margin that Consumers utilized on Rebuttal and in its Opening Supplemental, and an updated peaking factor.[23] In its Opening Supplemental Evidence, Consumers made the calculations necessary to determine the need for additional locomotive hours and locomotive-unit miles to reflect the repositioning of locomotives necessary to account for traffic flow imbalances on the CERR – a process that Consumers performed both in its Opening and Rebuttal Evidence.[24] The reduction in traffic and related adjustments to the on-SARR/off-SARR traffic flows resulted in a calculation of zero locomotives needed for repositioning.[25]

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[21] *See* Consumers Op. Supp. at III-C-1.

[22] *See* CSXT Supp. Reply at III-C-1-2.

[23] *See* Consumers Op. Supp. e-workpaper "CERR Operating Statistics_Supplemental.xlsx," tab "Summary," cell K41.

[24] *See* Consumers Op. e-workpaper "Base Unit Merch Trains v6_Statistics.xlsx," tab "Crew and Loco Balancing," and Consumers Reb. e-workpaper "Base Unit Merch Trains v6_Statistics_Rebuttal.xlsx," tab "Crew and Loco Balancing."

[25] *See* Consumers Op. Supp. e-workpaper "Base Unit Merch Trains v6_Statistics_Supplemental.xlsx," tab "Crew and Loco Balancing," cells X34 and X39.

CSXT's Supplemental Reply argues for 15 road locomotives based on its Supplemental Reply RTC Model results.[26] CSXT also includes additional locomotive hours and locomotive-unit miles for repositioning locomotives across the CERR. CSXT argues that it was impermissible, under relevant Board precedent, for Consumers to exclude the repositioning calculation in its Opening Supplemental because CSXT already had agreed to the proposed methodology.[27] CSXT's argument is incorrect.

The *December 9 Decision* plainly contemplated that the CERR's traffic group would change.[28] The Board's decision recognized that significant operational changes might result based on Consumers' preferred approach to the traffic group revisions.[29] The Board's decision would make little sense if Consumers was restricted in its ability to make necessary changes in its operating plan resulting from the mandated change in the CERR's traffic group. CSXT argument is wholly illogical in light of the *December 9 Decision.*

CSXT's arguments also miss the mark because Consumers' elimination of repositioning of locomotives is not a change in methodology. As discussed above, Consumers made the same calculations to determine the need for repositioning locomotives in Opening Supplemental that it did in Opening and in

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[26] *See* CSXT Supp. Reply at Table III-C-10.

[27] *See* CSXT Supp. Reply at III-C-7 n.14.

[28] *See December 9 Decision* at 20.

[29] *Id.*

Rebuttal. Because of the reduction in traffic and related adjustments to the on-SARR/off-SARR traffic flows changes made in the Opening Supplemental Evidence, this calculation results in the need for zero locomotives for repositioning.

CSXT's actions in its Supplemental Reply are directly contradictory to the case law that CSXT incorrectly claims supports retaining the repositioning additive. Specifically, CSXT cites the *FMC* case, noting that the complainant's proposal to include a triple track segment that the Defendant accepted in Reply could not be modified on Rebuttal.[30] Yet, in its Supplemental Reply, CSXT has accepted the removal of one track in the Barr Yard.[31] By CSXT's interpretation of the *FMC* precedent, Consumers should not have been able to remove this track, which plainly was contemplated in the *December 9 Decision* and readily accepted by CSXT.

Finally, Consumers' determination that repositioning was no longer necessary given the revised traffic flows does not prejudice CSXT in any way. CSXT had a fair opportunity to address this issue substantively in its Supplemental Reply, but it presented no arguments that the repositioning is still necessary. Therefore, Consumers continues to exclude repositioning of locomotives in its Rebuttal Supplemental Evidence.

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[30] CSXT Supp. Reply at III-C-7 n.14.

[31] CSXT Supp. Reply at III-C-1.

2. Service Efficiency and Capacity

c. Peak Week Train List Final Development Process

Consumers identified the peak period trains that corresponded to the 897 base year 2014, and 210 1Q2015 carload merchandise trains that were removed from the CERR traffic group, and removed them from the peak period train list.[32] CSXT did not dispute this procedure. However, CSXT continues to employ a peak train development methodology that grossly overstates the number of trains required to move the peak year traffic volumes,[33] which results in a highly inefficient operating plan and grossly overstated operating expenses. Consumers thoroughly addressed the critical failures of CSXT's peak-year train development model in its Rebuttal Evidence.[34]

e. Results of the RTC Model Simulation

In its Opening Supplemental Evidence, Consumers' transit times decreased or stayed essentially the same as in its Rebuttal RTC Model simulation,

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[32] *See* Consumers Op. Supp. e-workpapers "Leaders Seeds 10-14 Crosswalk - w RTC Symbol Lookup - Supplemental Update.xlsx," tab "Leaders & Seeds 10-14 CROSS," column V; "Peak Unit Merch Trains v5 20151009 w Peak LE Consist and Growth Trains w delayv4 Supplemental.xlsx," tab "Peak Week Base Year Unit Merch," rows 264-284 and 292-294; and "CERR BASE YEAR TRAIN LIST DEVELOPMENT vF Supplemental.xlsx," tab "Cerr Peak Trains," rows 263-283 and 291-293.

[33] *See* CSXT Supp. Reply at III-C-1 n.4, ("CSXT's addition to its Reply RTC Model of 5 growth trains that would be required to handle the CERR's peak period traffic.")

[34] *See* Consumers Reb. at III-C-75-84.

except for two O-D pairs where transit times increased slightly.[35] Likewise, CSXT's Supplemental Reply closely tracks Consumers' RTC Model, including the changes in the RTC Model resulting from the adjustments to the traffic group. CSXT continues to exclude certain traffic moving to and from Curtis under its theory that the CERR does not meet the necessary service standards,[36] and Consumers continues to include this traffic for the same reasons that it articulated on Rebuttal and summarized in Part III-A, *supra*.[37] Table III-C-1 shows that the CERR's transit times for crossover traffic remain superior to historical CSXT transit times.

[35] *See* Consumers Op. Supp. e-workpaper "5.1 Transit Times Comparison Hist vs RTC vs REPLY vs REBUTTAL vs Supplemental.xlsx," tab "Train Trainsit REPLY & REBUT REV."

[36] *See* CSXT Supp. Reply at III-A-2.

[37] *See* Consumers Reb. at III-A-35-55.

TABLE III-C-1 COMPARISON OF TRAIN TRANSIT TIMES				
On-SARR Station	**Off-SARR Station**	**Historical Peak Period Trains (HH:MM:SS)**	**CSXT SUPPLEMENTAL REPLY RTC (HH:MM:SS)**	**CERR OPENING/REBUTTAL SUPPLEMENTAL RTC (HH:MM:SS)**
22ND ST-71ST ST, IL	CURTIS, IN	{ }	3:12:00	2:55:42
CALUMET PARK CP, IL	CURTIS, IN	{ }	Dropped	0:57:50
CHICAGO 59TH ST, IL	CURTIS, IN	{ }	2:14:00	2:26:31
CHICAGO 59TH ST, IL	DOLTON, IL	{ }	1:46:00	2:04:02
CHICAGO - BARR, IL	CURTIS, IN	{ }	1:47:00	1:42:13
CURTIS, IN	22ND ST, IL	{ }	3:15:00	3:14:56
CURTIS, IN	BRIGHTON PARK		2:37:00	2:39:39
CURTIS, IN	OGDEN JCT.		4:47:00	4:33:41
CURTIS, IN	BLUE ISL IHB CONN, IL	{ }	3:16:00	3:30:44
CURTIS, IN	CALUMET PARK CP, IL	{ }	Dropped	0:58:07
CURTIS, IN	CHICAGO 59TH ST, IL	{ }	2:52:00	2:45:38
CURTIS, IN	CHICAGO - BARR, IL	{ }		1:43:23
CURTIS, IN	DOLTON, IL	{ }	Dropped	1:29:40
DOLTON, IL (South)	OGDEN JCT.	{ }	3:26:00	3:38:24
DOLTON, IL (South)	CHICAGO 59TH ST, IL	{ }	1:51:00	1:53:52
DOLTON, IL (East)	CURTIS, IN	{ }	1:32:00	1:37:07
DOLTON, IL (South)	CURTIS, IN		1:41:00	1:42:49

As Table III-C-1 demonstrates, the CERR continues to meet the operational needs of the customers in its modified traffic group.

III. D. OPERATING EXPENSES

In its Opening Supplemental Evidence, Consumers presented revised CERR operating expenses based on the removal of 897 base year 2014 trains and 210 1Q2015 carload merchandise trains, as well its revisions to the RTC Model. CSXT largely ignored Consumers' Opening Supplemental presentation, and instead adjusted its Reply operating expenses to reflect the changes in the traffic group that Consumers made and CSXT accepted. A comparison of Consumers' and CSXT's Supplemental operating expenses are shown in Table III-D-1 below.

TABLE III-D-1
CERR 2015 OPERATING EXPENSES
($ Millions)

	Opening Supplemental	CSXT Supplemental Reply	Rebuttal Supplemental	Difference (Rebuttal Supplemental v. CSXT Reply)
Locomotive Lease	{ }	{ }	{ }	{ }
Locomotive Maintenance	{ }	{ }	{ }	{ }
Locomotive Operations	{ }	{ }	{ }	${ }
Railcar Lease	$5.0	$4.6	$5.0	$0.4
Materials & Supply Operating	$0.6	$0.6	$0.6	-$0.0
Train, Engine and Yard Personnel	$6.4	$8.2	$6.4	-$1.8
Non-Train Operating Personnel	$5.1	$6.3	$5.1	-$1.3
General & Administrative	$7.0	$10.4	$7.0	-$3.4
Loss & Damage	{ }	{ }	{ }	{ }
Ad Valorem Tax	$2.0	$1.2	$2.0	$0.8
Maintenance-of-Way	$8.8	$13.5	$8.8	-$4.7
Insurance	$2.0	$2.3	$2.0	-$0.3
Startup and Training	$2.5	$3.1	$2.5	-$0.6
Joint Facilities	$1.7	$4.3	$1.7	-$2.6
Intermodal Lift	{ }	{ }	{ }	$5.9
Total*	**$54.7**	**$62.9**	**$54.7**	**-$8.2**

Source: Consumers Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "DCF Transfer;" CSXT's Supp. Reply e-workpaper "CERR Operating Expense_Supp_Reply.xlsx," tab "DCF Transfer;" Consumers' Reb. Supp. e-workpaper "CERR Operating Expense_Supplemental Rebuttal.xlsx," tab "DCF Transfer."

1. Locomotives

As noted in Part III-C, *supra*, Consumers determined in its Opening Supplemental Evidence that the CERR requires 13 road locomotives, while CSXT argues instead for 15 road locomotives.[1] In its Supplemental Reply operating expense evidence, CSXT repeats arguments from its Reply operating evidence that

[1] *See* CSXT Supp. Reply Table III-C-10.

Consumers should have provided for the repositioning of locomotives.[2] As explained in Part III-C, *supra*, Consumers performed the necessary calculations and determined that as a result of the reduced traffic group, no repositioning of locomotives was necessary.[3]

CSXT also updates its calculation of the CERR's required peaking factor and compares that to Consumers' calculation.[4] As Consumers has not adjusted its operating plan on Rebuttal Supplemental, it continues to use the peaking factor that it calculated in its Opening Supplemental Evidence.[5]

CSXT's evidence briefly repeats that Consumers has not included the cost of third locomotives received on certain trains from interchange partners where CSXT argues that the run-through power agreements require compensation to the owning carrier.[6] Consumers already has thoroughly refuted this claim in its Rebuttal. Specifically, Consumers showed that CSXT's arguments in favor of counting these third locomotives in the run-through calculation are inconsistent with: (i) CSXT's acceptance of the approach used by Consumers on Opening for locomotive consist requirements; (ii) the fact that the locomotives are placed on the train for the convenience of the connecting carriers; (iii) the fact that the CERR

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[2] *See* CSXT Supp. Reply at III-C-7 n.14.

[3] *See* Part at III-C-1-b-a, *supra*.

[4] *See* CSXT Supp. Reply at III-D-3-4.

[5] *See* Consumers Supp. e-workpaper "CERR Operating Statistics_Supplemental.xlsx," cell F56.

[6] *See* CSXT Supp. Reply at III-D-6.

is transporting those locomotives without compensation; and (iv) the fact that the CERR's interchange partners have no expectation of compensation.[7]

CSXT next argues again for two yard locomotives at Barr Yard.[8] As Consumers explained on Rebuttal, road locomotives largely will handle the Barr Yard operations because the primary activity in the yard is setting out bad order cars, which the road locomotives are better equipped to handle because they are already on the train.[9] Thus, the yard locomotive's principal activity is moving bad ordered cars to and from the shop.[10] Only one yard locomotive is necessary for this work.[11]

Finally, CSXT again argues that the CERR's road locomotive fuel costs should be based on the share of unit-miles by train type across the CERR network, rather than the CSXT system average.[12] As Consumers explained on Rebuttal, varying terrain across the CSXT system causes disproportionate consumption rates for trains carrying certain commodities, especially coal trains traversing the mountains of Appalachia.[13] There are no mountains to be traversed

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[7] *See* Consumers Reb. at III-C-103-04; III-D-4-5.

[8] *See* CSXT Supp. Reply at III-D-6.

[9] *See* Consumers Reb. at III-C-104-106; III-D-6.

[10] *See* Consumers Reb. at III-C-105-106.

[11] *See id.*

[12] *See* CSXT Supp. Reply at III-D-6-7.

[13] *See* Consumers Reb. at III-D-13-14.

by the CERR. As such, Consumers continues to use system-average fuel consumption figures for the trains handled by the CERR.

In light of the above, Consumers continues to include 13 ES44AC road locomotives, one (1) yard locomotive, and two (2) helper locomotives.[14]

2. Railcars

In its Opening Supplemental Evidence, Consumers updated its car leasing, maintenance and private allowance costs to reflect the revised car requirements and private allowance payments resulting from the removal of certain carload merchandise trains and subsequent RTC Model statistics.[15] CSXT performed a similar calculation in its Supplemental Reply.[16] The parties' minor cost differences arise for the reasons addressed in Consumers' Rebuttal.[17] Consumers has not altered its methodology in its Supplemental Evidence. Therefore, Consumers continues to use its Opening Supplemental railcar leasing costs in this Rebuttal Supplemental.[18]

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[14] *See* Consumers' Op. Supp. e-workpaper "CERR Operating Statistics_Supplemental.xlsx," cells K28, K31 and K32.

[15] *See* Consumers' Op. Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "Summary," cell D143.

[16] *See* CSXT Supp. Reply e-workpaper "CERR Car Costs_Supp_Reply.xlsx."

[17] *See* Consumers Reb. at III-D-14-15.

[18] *See* Consumers Reb. Supp. e-workpaper "CERR Operating Expense_Supplemental Rebuttal.xlsx," tab "Summary," cell D143.

3. Operating Personnel

a. Operating

ii. Train/Switch Crew Personnel

In its Opening Supplemental Evidence, Consumers determined that it required a total of 47 crew members (train, engine and yard combined).[19] CSXT, by comparison, argues in its Supplemental Reply for 65 train, engine and yard crew personnel.[20] The differences in the parties' calculations stem from various staffing-related arguments presented in the Opening, Reply and Rebuttal phases of this case. Indeed, CSXT repeats, in summary form, its Reply arguments that: (i) Consumers' incorrectly assumes that most crew can complete two assignments per day;[21] (ii) Consumers' has not accounted for changes in the hours of service law;[22] and (iii) no recrews would be required at the Campbell Station.[23]

In Rebuttal, Consumers refuted all three of CSXT's arguments. Consumers demonstrated that most CERR crews could handle two or more assignments per day.[24] Consumers showed that its crews would not expire under the hours of service law, and that CSXT's approach ignored easy solutions to any

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[19] *See* Consumers Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "Summary," cell D7.

[20] *See* CSXT Supp. Reply at III-D-8-9.

[21] *Id.*

[22] *See* CSXT Supp. Reply at III-D-9.

[23] *Id.*

[24] *See* Consumers Rebuttal at III-D-19-23.

such problems.[25] Finally, Consumers showed that CSXT's addition of recrews near West Olive was not supported by any evidence, including the RTC Model.[26]

iii. Non-Train Operating Personnel

In its Opening Supplemental Evidence, Consumers did not adjust its non-train operating personnel requirements from those that it presented on Rebuttal. While the reduction in the CERR's traffic group might have warranted such an adjustment, Consumers conservatively retained the 38 non-train operating personnel that it specified in Rebuttal.[27] In its Supplemental Reply, CSXT eliminates four non-train operating personnel: two (2) car inspectors, the Director – Dispatch Control, and Manager – Customer Service and Data Control.[28] Consumers has no objection to CSXT's reductions. However, CSXT continues to overstaff the CERR's non-train operating personnel positions, including train operations management (3 positions) and matching managers for crew calling positions (5 positions). For the reasons set forth in Consumers' Rebuttal, Consumers continues to exclude these positions as unnecessary.[29] Indeed, with Consumers' reduction in total traffic handled, there is even less need for the CERR to include CSXT's proposed positions.

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[25] *See* Consumers Rebuttal at III-D-25-30.

[26] *See* Consumers Rebuttal at III-D-24-25.

[27] *See* Consumers Op. Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "Summary," cell C164.

[28] *See* CSXT Supp. Reply at III-D-11-13.

[29] *See* Consumers Rebuttal at III-D-24-25.

b. General and Administrative

In its Opening Supplemental Evidence, Consumers did not adjust general and administrative personnel requirements. Just as with non-train operating personnel, the reduction in the CERR's traffic group might have warranted a downward adjustment in Consumers' proposed G&A staffing. However, Consumers conservatively retained the 29 G&A personnel that it specified in Rebuttal.[30] In its Supplemental Reply Evidence, CSXT eliminates four G&A positions: two (2) marketing managers, the Manager of Disbursements, and one Police Agent.[31] Consumers has no objection to CSXT's reductions. However, CSXT continues to overstaff the CERR's G&A function by 20 positions. For the reasons set forth in Consumers' Rebuttal, Consumers continues to exclude these additional 20 positions as unnecessary.[32] Likewise, Consumers continues to provide for the same 29 G&A personnel that it specified on Rebuttal and in its Opening Supplemental Evidence.

v. Other

(b) Other Out-Sourced Functions

As Consumers has not adjusted its G&A personnel or non-train operating personnel, it has not adjusted any associated costs in this Rebuttal

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[30] *See* Consumers Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "Summary," cell C226.

[31] *See* CSXT Supp. Reply at III-D-13-16.

[32] *See* Consumers Rebuttal at III-D-44-102.

Supplemental, such as materials and supplies, out-sourced functions, travel costs, or start-up and training costs.

4. Maintenance-of-Way

In its Opening Supplemental Evidence, Consumers determined that the changes in the CERR's traffic group resulted in a minor reduction in gross tons travelling over various segments, which subsequently resulted in a minor adjustment to rail grinding costs of $2,702.[33] In its Supplemental Reply Evidence, CSXT also adjusted its rail grinding costs.[34]

CSXT also corrects a calculation error related to track miles used to calculate joint bar testing and/or geometry testing.[35] This correction results in CSXT restating its annual Joint Bar Testing expense from $316,383 in Reply to $17,262 in Supplemental Reply.[36]

CSXT also updated Tables III-D-24, III-D-25, III-D-26 and III-D-27 from its Reply Evidence. These tables correspond with certain MOW staffing

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[33] *See* Consumers Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "DCF Transfer," cell I34.

[34] *See* CSXT Supp. Reply at III-D-19.

[35] *See* CSXT Reply e-workpaper "CERR MOW Costs_Reply.xlsx," tab "Geometry Testing," cell B30 as compared to CSXT Supp. Reply e-workpaper "CERR MOW Costs_Supp_Reply.xlsx," tab "Geometry Testing," cell B30.

[36] *See* CSXT Reply e-workpaper "CERR MOW Costs_Reply.xlsx," tab "Reply Annual MOW Expense," cell G8 as compared to CSXT's Supp. Reply e-workpaper "CERR MOW Costs_Supp_Reply.xlsx," tab "Reply Annual MOW Expense," cell G8.

arguments that CSXT made in Reply.[37] Consumers addressed and rebutted all of CSXT staffing increases in its Rebuttal.[38] As CSXT has not presented any new arguments in favor of its increased staffing, Consumers has not deviated from its Rebuttal and Opening Supplemental MOW staffing.

Consumers' Rebuttal Supplemental Evidence adjusts MOW costs to reflect the reduction of track miles in Barr Yard described in Part III-B.[39]

5. Joint Facilities

In its Opening Supplemental Evidence, Consumers adjusted its joint facility costs to reflect the modifications made to the CERR's traffic group. Specifically, the joint facilities costs were reduced for {

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In its Supplemental Reply, CSXT has updated its Reply calculation of joint facilities costs.[41] However, CSXT continues to rely on the flawed

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[37] *See* CSXT Reply at III-D-108-114.

[38] *See* Consumers Rebuttal at III-D-114-119.

[39] While making the adjustment to MOW costs to reflect reduced Barr Yard track miles, Consumers' experts discovered that other mileage components used to calculate MOW costs that should have been updated in Rebuttal and Opening Supplemental were not updated. Consumers has made the necessary adjustments in this Rebuttal Supplemental.

[40] *See* Consumers Supp. at III-D-6.

[41] *See* CSXT Supp. Reply at III-D-21.

methodologies and assumptions that it used on Reply.[42] Consumers refuted CSXT's arguments in detail in its Rebuttal Evidence,[43] and CSXT provides nothing further in its Supplemental Reply. Therefore, Consumers continues to rely on its Opening Supplemental joint facility costs.[44]

6. Loss and Damage

In its Opening Supplemental Evidence, Consumers updated its loss and damage calculation to reflect its changes in the CERR's traffic group.[45] CSXT has made a similar modification.[46] As in Rebuttal, the minor difference in costs are attributable to the differing traffic levels by commodity posited by the parties.

7. Insurance

The slight increase in the CERR's total operating expenses caused a corresponding increase in insurance costs, which were derived using an insurance ratio of 3.75% of operating expenses.[47] The parties continue to agree on the

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[42] *See* CSXT Reply at III-D-140-157.

[43] *See* Consumers Rebuttal at III-D-144-158.

[44] *See* Consumers Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "DCF Transfer," cell D24.

[45] *See* Consumers Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "DCF Transfer," cell I22. The change in loss and damage was *di minimis* such that it did not alter Table III-D-1, *supra.*

[46] *See* CSXT Supp. Reply e-workpaper "CERR Operating Expense_Supp_Reply.xlsx," tab "DCF Transfer," cell D22.

[47] *See* Consumers Supp. e-workpaper "CERR Operating Expense_Supplemental.xlsx," tab "DCF Transfer," cell I32.

application of the 3.75% ratio.[48] CSXT simply made its corresponding calculation in its Supplemental Reply.[49]

8. Ad Valorem Tax

The calculation of Illinois State ad valorem taxes relies on CERR operating expenses and depreciation. For this Rebuttal Supplemental, with operating expenses increasing slightly and depreciation decreasing slightly, the CERR's ad valorem taxes increase slightly.[50]

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[48] *See* CSXT Supp. Reply e-workpaper "CERR Operating Expense_Supp_Reply.xlsx," tab "DCF Transfer," cell C32.

[49] *See* CSXT Supp. Reply e-workpaper "CERR Operating Expense_Supp_Reply.xlsx," tab "DCF Transfer," cell D32.

[50] *See* Consumers Reb. Supp. e-workpaper "CERR Operating Expense_Supplemental Rebuttal.xlsx," tab "DCF Transfer," cell D16.

III. F. ROAD PROPERTY INVESTMENT

As explained in Part III-A, Consumers and CSXT are in agreement regarding the modified CERR traffic group, and on the removal of 2.22 miles of track at Barr Yard as a result.[1] CSXT in its Supplemental Reply also removed the Cottage Grove overpass, which it had proposed on Reply, but which Consumers rejected in its Rebuttal Evidence.[2] However, CSXT's Supplemental Reply Evidence continues to include 2.0 miles of unnecessary siding near the Consumers plant, which is not justified by the RTC modeling performed by either CSXT or Consumers, as well as 0.14 miles of unnecessary bad order track at the Barr Yard.[3] CSXT also continues to insist – without evidentiary support – that the CERR should be responsible for the construction of two (2) bridges in Chicago, which actually were funded by public authorities.

This section addresses the new and supplemental evidence, arguments and workpapers on the subject of CERR road property investment, included as part of CSXT's Supplemental Reply. Table III-F-1 below summarizes Consumers' Rebuttal Supplemental Road Property Investment costs (which

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[1] CSXT Supp. Reply at III-F-1.

[2] *Id.*

[3] In addition to the 2.0 and 0.14 miles of unnecessary track, CSXT's Supplemental Reply III-F evidence has numerous internal inconsistencies, with track and OTM spreadsheets having different mileage totals and not equaling the total track miles reported in Part III-B. *See* Consumers Reb. Supp. e-workpaper "III-F-3 Track Miles Comparison.pdf." Since Consumers' road property investment calculations represent the better evidence of record in any case, Consumers has not undertaken to correct the many errors in CSXT's spreadsheets and workpapers.

include the correction of certain minor technical errors), by comparison to the inflated costs submitted by CSXT in its Supplemental Reply.

REBUTTAL SUPPLEMENTAL TABLE III-F-1
CERR Road Property Investment Costs
(millions)

	Item	Consumers Op. Supp.	CSXT Supp. Reply	Consumers Reb. Supp.	Consumers Reb. Supp. vs Op. Supp. Difference	CSXT Supp. Reply vs Consumers Reb. Supp. Difference
1.	Land	$120.6	$131.7	$120.6	$0.00	$11.0
2.	Roadbed Preparation	$36.7	$80.6	$36.7	$0.00	$43.9
3.	Track	$208.6	$249.8	$208.3	-$0.32[/1]	$41.6
4.	Tunnels	$0.00	$0.00	$0.00	$0.00	$0.00
5.	Bridges	$72.5	$164.0	$72.5	$0.00	$91.5
6.	Signals and Communications	$42.0	$46.5	$42.0	$0.00	$4.6
7.	Buildings and Facilities	$11.8	$25.9	$11.7	-$0.11[/2]	$14.1
8.	Public Improvements	$3.4	$11.1	$3.4	$0.00	$7.7
9.	Subtotal	$495.6	$709.6	$495.2	-$0.42	$214.4
10.	Mobilization	$10.1	$35.9	$10.1	-$0.01	$25.7
11.	Engineering	$37.5	$57.8	$37.5	-$0.04	$20.3
12.	Contingencies	$42.3	$67.2	$42.2	-$0.05	$24.9
13.	**Total Road Property Investment Costs**	**$585.5**	**$870.4**	**$585.0**	**-$0.53**	**$285.4**

[/1] Difference represents the removal of 2.22 miles of track from the Barr Yard ballast and subballast installation costs. In Consumers' Op. Supp. Evidence, the 2.22 miles of Barr Yard track erroneously were not removed from the tab "1 track" in "2015 Ballast & subballast Worksheet_ Supplemental.xlsx." The total yard and other miles were pulled from this tab into "2015 OTM Worksheet_Supplemental.xlsx" to calculate the installation costs for ballast and subballast.

[/2] Difference represents the costs associated with the removal of 2 fuel pads that erroneously were not removed from "2015 Building Sites_Supplemental.xlsx" after the removal of the 2.22 miles of Barr Yard track.

2. Roadbed Preparation

As Consumers demonstrated in its Rebuttal Evidence, CSXT's proposed 2.0 mile long siding near the Campbell Station is unnecessary. Consumers explained that its RTC Model run showed that even during the peak week in the peak year, the siding would not be used by the Consumers trains.[4] This was confirmed by CSXT's own RTC Model, which likewise showed no need for the siding.[5]

Consumers' Rebuttal Supplemental Evidence excludes the 2.22 miles of Barr Yard track, and the associated roadbed preparation costs.

CSXT's Supplemental Reply fine grading calculations continue to include a technical error that results in a cost overstatement of approximately $30,000. As Consumers noted on Rebuttal, CSXT's calculations assumed that the CERR will pay 100% of these costs, as opposed to the stipulated 25% of the BRC fine grading costs.[6]

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[4] Consumers Reb. at III-B-13. *See also* discussion at III-B-1-2, *supra*.

[5] Consumers Reb. at III-B-13-14. This was confirmed in CSXT's Supp. Reply RTC model as well, which indicated that the Consumers trains never utilized this additional siding (*see* RTC model graphic reproduced in Consumers Reb. at III-B-14).

[6] *See* Consumers Reb. at III-F-76; Consumers Reb. e-workpaper "CERR Grading_Rebuttal.xlsm," tab "Road Grading," cell CW18.

3. Track Construction

Consumers' Rebuttal Supplemental Evidence has modified the ballast and subballast installation costs to reflect the removal of 2.22 miles of Barr Yard track, which CSXT also agreed to remove in its Supplemental Reply.[7] This is a technical correction to Consumers' Opening Supplemental Evidence, which inadvertently included the unnecessary track in the associated spreadsheet. Parts III-B and III-F of Consumers Opening Supplemental Narrative clearly explained why the track should be excluded.[8] The correction reduces the Rebuttal Supplemental investment by approximately $320,000 before mobilization, contingencies, and engineering (*see* Table III-F-1). Aside from this technical correction, there are no changes from Consumers' Opening Supplemental Evidence.

CSXT's Supplemental Reply states that the totals reported in Table III-F-12 "includes the effects on track construction investment of removing the 2.22 mile yard track."[9] However, the costs CSXT reported in its Supplemental Reply Evidence represent the removal of only 0.22 miles of track, due to the inclusion of 2.0 miles of siding near the Campbell Station, which was excluded from CSXT's totals on Reply, then was added back as part of CSXT's

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[7] *See* CSXT Supp. Reply at III-F-1.

[8] *See* Consumers Supp. at III-B-1 and III-F-1.

[9] CSXT Supp. Reply at III-F-4.

Supplemental Reply.[10] Additionally, the track miles that CSXT utilized in its Supplemental Reply Evidence ranged from 231.76 miles to 239.0 miles,[11] which are clearly different from the 233.90 miles that CSXT purported to utilize in III-B.[12] This range in CSXT track miles is due to various CSXT technical errors as well as the inclusion of 2.0 miles of siding near the Campbell Station and the 0.14 miles of bad order track. Regardless, CSXT's statement in its Supplemental Reply Evidence is misleading and its track construction evidence does not reflect only the removal of 2.22 miles of yard track, which is evident from Table III-F-2, below.[13] Consumers' Rebuttal Supplemental Evidence shows the correct calculations and constitutes the better evidence of record.[14]

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[10] CSXT Supp. Reply at III-F-1 n.1.

[11] *See* Consumers Reb. Supp. e-workpaper "III-F-3 Track Miles Comparison.pdf."

[12] CSXT Supp. Reply at III-B-2, Table III-B-2.

[13] CSXT failed to consistently identify its workpaper corrections by highlighting or differentiating the corrections made, in violation of the Board's decision served July 15, 2015 for the procedures and formatting of evidence in this proceeding. Consumers also notes that CSXT filed all of its III-F electronic workpapers without working links, which is also in violation of the Board's July 15, 2015 order.

[14] Consumers Reb. Supp. e-workpapers "Rail Worksheet_Supplemental.xls" at tab "Rail Type Summary;" "2015 Ballast & subballast Worksheet_ Supplemental Rebuttal.xls" at tab "Rail Type by Subdivision."

As noted above, since Consumers' road property investment calculations represent the better evidence of record, Consumers did not attempt to correct the many errors in CSXT's Supplemental Reply Evidence.

REBUTTAL SUPPLEMENTAL TABLE III-F-2
Comparison of CSXT's Track Construction Costs
($ in thousands)

Item	CSXT Reply	CSXT Supp. Reply	CSXT Supp. Reply vs CSXT Reply Difference
1. Ballast and Subballast	$68,057	$67,478	-$579
2. Rail, OTM, & Other	$86,430	$85,382	-$1,048
3. Ties	$52,258	$52,285	$26[/1]
4. Track Labor	$45,221	$44,678	-$543

[/1] Cost increase is because the 2.22 miles of yard track removed has fewer ties per mile than the 2.0 miles of track added by CSXT.

5. Bridges

The evidence presented by Consumers throughout this proceeding clearly demonstrates that the Chicago Sanitary Canal Bridge and the Calumet Sag Channel Bridge were parts of public works projects and that CSXT's predecessors did not pay for these bridges.[15] Under SAC Constraint rules, therefore, the CERR is not responsible for those bridge costs.

In its Supplemental Reply, CSXT asserts that Consumers has "provided no evidence related to public funding of either of the original bridges,"[16] and claims to have refuted Consumers' prior presentations. As shown below, however, CSXT's "evidence" is comprised of claims that are wholly unsubstantiated and without merit.

[15] Consumers Op. at III-F-63; Consumers Reb. at III-F-99-100.

[16] CSXT Supp. Reply at III-F-10.

a. The CERR Is Not Required to Pay for the Construction of the Chicago Sanitary Canal Bridge

CSXT continues to mischaracterize the evidence submitted by Consumers regarding the construction of the Chicago Sanitary Canal Bridge. In its Supplemental Reply, CSXT states that the Railway Gazette article submitted as evidence by Consumers "confirmed that the movable span bridge over the Sanitary Canal was replacing a preexisting fixed span bridge; indeed, the article even had a picture of the prior bridge."[17] While this statement is accurate,[18] CSXT misses the point that the prior fixed span bridge that was put into service in 1901 was *not* a "railroad-built bridge."[19] CSXT's argument can only be explained as a misreading of the evidence submitted by Consumers, as the Railway Gazette article clearly states that *both* the fixed and movable bridges were installed by the Sanitary District.[20] The relevant portion of the article states the following:

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[17] CSXT Supp. Reply at III-F-6.

[18] CSXT Reply at III-F-90 ("This article explained that a fixed span bridge was built and placed in service in 1901, and indeed it includes a photograph of the old fixed span. The Sanitary District stepped in to fund the replacement of this bridge '[w]hen plans were made in 1908 to open the canal to navigation.'") (Internal citations omitted).

[19] *See id.* ("The fact that the Sanitary District of Chicago *paid to replace a fixed span railroad-built bridge with a moveable structure to better accommodate water traffic* is no reason to conclude that the CERR could operate over this bridge for free.") (Emphasis supplied).

[20] *See* Consumers Op. e-workpaper "Bascule Bridge Over CSSC Railway Gazette indicating that the Sanitary district paid.pdf" (*Railway Gazette*).

The bridge now being built over the Sanitary and Ship canal, at Campbell avenue and Thirty-first street, Chicago, is composed of four double track single leaf Scherzer rolling lift bridges, placed alternately side by side.

It will carry four tracks of the Pittsburg, Cincinnati, Chicago & St. Louis, two of the Chicago Terminal Transfer and two of the Chicago Junction Railway. ***The bridge is being built and paid for by The Sanitary District of Chicago, under an agreement with the railway companies to provide a moveable bridge of an efficient design subject to their approval.*** The Sanitary District also pays the railways such a sum of money as will draw interest sufficient to pay the expenses of maintenance and operation of the bridge.

Competitive designs for the bridge were first invited in 1898, and from the plans submitted at that time, those by the Scherzer Rolling Lift Bridge Co., Chicago, were selected. Contracts for the substructure were let to McArthur Bros., and for the superstructure to Pencoyd Iron Works, Philadelphia, Pa. ***The bridge was built and placed in service in 1901. However, only those portions of the superstructure necessary to carry the moving loads when acting as a fixed span were erected at this time***, and the structural parts and machinery required to make the bridge movable were to be furnished later when it was necessary to open the canal to navigation. ***Fig. 2 shows the bridge as first placed in service.*** The part constructed formed four three-hinged arch spans; when completed for operation as a movable bridge, each span was to be a double leaf rolling lift bridge.

When plans were made in 1908 to open the canal to navigation, it seemed advisable to abandon the original plan for the Campbell avenue bridge and substitute a single-leaf rolling lift bridge. The Scherzer company was contracted with by the

> ***Sanitary District for a new design***, providing for four single-leaf, double-track Scherzer rolling lift bridges, placed side by side, the alternate bridges being supported at opposite ends to allow the minimum spacing between tracks.

Railway Gazette at 565-66 (emphasis supplied).

From the record and evidence submitted, it is clear that CSXT's predecessor did not pay to construct either the fixed span bridge in service in 1901 or the moveable span that later replaced it when the canal was made navigable. Therefore, Consumers properly excluded the related costs from the CERR's Road Property Investment.

b. The CERR Is Not Required to Pay for the Construction of the Calumet Sag Bridge

CSXT in its Supplemental Reply states that the Calumet Sag Bridge "is itself a modification to the original Calumet Feeder Canal, which was in use by 1851 as part of the Illinois and Michigan Canal system."[21] In support of this statement, CSXT cites to its Supp. Reply e-workpaper "Blue Island History Excerpt.pdf," which includes the following statement:

> The route of the canal from Ann street, Blue Island, to Sag, is almost identical with that of the old feeder canal which was built more than 70 years ago for the purpose of supplying additional water to the old Illinois and Michigan canal. ***From Ann street east to Fay's Point*** the canal follows exactly the bed of old Stony creek.

(Emphasis supplied).

[21] CSXT Supp. Reply at III-F-9.

The problem with CSXT's narrative is that the Calumet Sag Bridge at issue is *west* of Ann street, so it is not along "the bed of old Stony creek." While the Calumet Sag may have approximated the path of the Calumet Feeder Canal,[22] the Feeder Canal was only "practically parallel" to the Sag channel.[23] Additionally, a published court decision confirms that the railroads received compensation for their property losses,[24] in addition to the construction of a bridge over the new Calumet Sag.[25]

The fact that the Calumet feeder only runs parallel to the Calumet Sag supports the conclusion that the CERR is not required to pay for the bridge. A SARR is only required to pay for existing bridges and infrastructure, so the fact that a bridge was taken out or an overpass no longer exists at a given location is not of any consequence.[26] Consumers on Rebuttal also submitted additional evidence[27] that the Sanitary District funded the construction of this bridge.[28]

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[22] *See* CSXT Supp. Reply e-workpaper "Calumet Feeder Information from American Canal Society.pdf" (report states "Cal-Sag" replaced the Calumet Feeder, but contains no map and provides no dimensions for either water body, so does not contradict the evidence indicating that it did not follow the same route). *See* discussion *infra* at III-F-10-11.

[23] *Sanitary Dist. of Chi. v. Chi. & A.R. Co.,* 108 N.E. 312, 313 (Ill. 1915)("*Sanitary District*").

[24] "Every provision of the act bearing on this question shows that it was the intention of the Legislature to hold the sanitary district to a strict accountability for all damages inflicted by it upon any property, whether owned by private interests or the public, and to require it to pay full compensation for property actually taken and for damages to the remainder." *Sanitary District*, 108 N.E. at 316.

[25] *Id.,* at 313 (railroad compensated for property loss and damages).

[26] *Xcel I*, 7 S.T.B. at 674 ("It is well established that, for purposes of a SAC analysis, it is reasonable to assume that a SARR could replace or replicate existing

Finally, Consumers notes that even if the Board adopts CSXT's flawed argument that the CERR must account for the original span across the Calumet Feeder, the dimensions of the bridge proposed by CSXT at this location are far in excess of what would have been required. CSXT's Supplemental Reply Evidence shows that the Calumet Feeder measured only 40 feet across and was just four feet deep.[29] CSXT's Supplemental Reply Evidence also indicates that by the time CSXT's predecessor railroad constructed any sort of structure, the Calumet Feeder's dimensions would have been even smaller, given that the feeder dam that allowed for the water to flow was exploded by farmers in 1875[30] and

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lines and facilities used by the defendant railroad, *at the same location as the existing lines and facilities*.") (Emphasis supplied).

[27] *See* Consumers Reb. e-workpaper "Sanitary District of Chicago_Calumet_Sag Bridge Construction.pdf."

[28] The additional evidence submitted by Consumers on Rebuttal was in support of a statement made on Opening and was from a published Almanac, a source that courts will judicially notice. *See Allen v. Allen*, 518 F. Supp. 1234, 1236 (E.D. Pa. 1981) ("Although the briefs represent her move to have been made on June 12, an almanac, of which we may plainly take judicial notice pursuant to F.R.E. 201, reveals that date to have been June 17."); *see generally Pollstar v. Gigmania, Ltd.*, 170 F. Supp. 2d 974, 978 (E.D. Cal. 2000) ("A judicially noticed fact must be one not subject to reasonable dispute in that it is either (1) generally known within the territorial jurisdiction of the trial court or (2) capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned. Fed.R.Evid. 201(b).").

[29] Consumers Reb. Supp. e-workpaper "Blue Island History Excerpt No. 2.pdf" at 35 ("The specifications for the feeder canal called for a width of 40 feet upon the surface of the water, 26 feet upon the bottom and four feet deep.") (these excerpted pages are from the same source cited to by CSXT in its Supp. Reply at III-F-9 n.22).

[30] Consumers Reb. Supp. e-workpaper "Blue Island History Excerpt No.2.pdf" at 35-36.

CSXT's predecessor railroad did not begin construction until at least the late 1880s.[31] In making the argument that Consumers should pay for the span across the Calumet Feeder, and despite citing to a source in its Supplemental Reply that lists its dimensions,[32] CSXT neglected to adjust its bridge design and continued to propose a 313 foot span at a cost of $23.68 million.[33] CSXT's claimed costs for this bridge are unsupported by the evidentiary record, and Consumers' evidence is plainly superior. The cost of this bridge is not the CERR's responsibility.

7. Buildings and Facilities

Consumers' Rebuttal Supplemental Evidence makes a technical correction to delete costs for two (2) fuel pads associated with the 2.22 miles of Barr Yard track that both parties have agreed to remove. This technical correction reduced Consumers' Rebuttal Supplemental investment costs by approximately $110,000 before mobilization, engineering, and contingencies (*see* Table III-F-1). Aside from this technical correction, there are no changes from Consumers' Opening Supplemental Evidence.

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[31] CSXT Supp. Reply at III-F-10 n.24.

[32] *Compare* CSXT Supp. Reply e-workpaper "Blue Island History Excerpt.pdf," *with* Consumers Reb. Supp. e-workpaper "Blue Island History Excerpt No. 2.pdf" at 35. Consumers' experts easily located the dimensions by performing a search of the document.

[33] CSXT Supp. Reply e-workpaper "Bridge Costs_Supp_Reply.xlsx," tab "Route Bridges," columns AJ-AQ, row 42.

9. Mobilization

There are no changes to the percentage of total costs from Consumers' Opening Evidence. However, due to technical corrections involving the removal of 2.22 miles of Barr Yard track, Consumers' Rebuttal Supplemental investment costs for mobilization decreased by approximately $10,000 from its Opening Supplemental costs (*see* Table III-F-1).

10. Engineering

There are no changes to the percentage of total costs from Consumers' Opening Evidence. However, due to technical corrections involving the removal of 2.22 miles of Barr Yard track, Consumers' Rebuttal Supplemental investment costs for engineering decreased by approximately $40,000 from its Opening Supplemental costs (*see* Table III-F-1).

11. Contingencies

There are no changes to the percentage of total costs from Consumers' Opening Evidence. However, due to technical corrections involving the removal of 2.22 miles of Barr Yard track, Consumers' Rebuttal Supplemental investment costs for contingencies decreased by approximately $50,000 from its Opening Supplemental costs (*see* Table III-F-1).

III. G. DISCOUNTED CASH FLOW ANALYSIS

In this Part, Consumers responds to the contentions that CSXT presented in its Supplemental Reply Evidence regarding the equity flotation cost issue described in the *December 9 Decision*.

1. Cost of Capital

a. A Separate Equity Flotation Cost for the CERR Remains Unwarranted

Consumers showed in its Opening Supplemental Evidence that the Board's decisions allowing additives of 2.1% and 2% for the flotation cost of equity capital in *Sunbelt* and *TPI*, respectively, were inconsistent with the agency's precedent that allowed such an additive only when, and to the extent that, the Class I railroads included in the Board's annual cost of capital composite sample had actually floated equity during the relevant year.[1] Moreover, the flotation additives to the industry average cost of equity capital in those years were substantially lower than the additive sought by CSXT, because the additive applied only to the portion of equity represented by the particular carrier that had issued equity, and not to the other carriers included in the composite sample that had not issued equity during the year. Furthermore, the agency recognized that even where no carrier included in the sample had issued public equity, there still was an implied equity flotation cost because the "impact of previously incurred

[1] *Railroad Cost of Capital--1983*, 1 I.C.C.2d 643 (1984); *Railroad Cost of Capital--1991*, 8 I.C.C.2d 402, 414-415 (1992).

flotation costs would be reflected in current stock prices and current investor return expectations."[2]

CSXT does not directly address the substance of Consumers' showing, but rather seeks simply to dismiss it on three basic grounds: (a) *Sunbelt* "discredited" any arguments against a separate additive for equity flotation costs to reflect the costs of new entry; (b) the precedents invoked by Consumers "addressed an entirely different issue;" and (c) "any residual effects of those [past] equity flotation costs on the current railroad industry cost of equity are long gone."[3]

CSXT's contentions are all evasions. The fact is that the Board's *Sunbelt* and *TPI* decisions did not give full or meaningful consideration to the language, calculations, or import of past precedent presented by Consumers. An argument cannot be deemed "discredited"[4] if it was not even considered, and rejecting an argument without giving it meaningful consideration constitutes arbitrary and capricious decision-making.[5] Because a flotation cost is already

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[2] Consumers Supp. at III-G-I-7; *Railroad Cost of Capital--1985*, 3 I.C.C.2d 625, 635-36 (1987).

[3] CSXT Supp. Reply at III-G-1-4. CSXT notes a fourth point, that the purpose of its proposed additive is to identify the costs that the SARR would incur as a new entrant, but this point adds nothing to CSXT's first point.

[4] *Id.* at III-G-1.

[5] *Vill. of Barrington, Ill. v. Surface Transp. Bd.*, 636 F.3d 650, 670 (D.C. Cir. 2011) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)).

implicit in the cost of equity, including a separate additive amounts to a double count.

The validity of Consumers' point can be illustrated by a hypothetical where one of the carriers included in the composite sample, *e.g.*, Defendant CSXT, actually does issue equity during one (or more) of the years when the CERR is being constructed. In that event, even under CSXT's approach it would be improper to impose a separate equity flotation cost for the CERR in that year in addition to that explicitly included in the industry cost of capital, as doing so would manifestly constitute a double-count. Significantly, however, the additive included in the industry average cost of equity as a result of CSXT's actual issuance would be much lower than the impact of including the separate additive advocated by CSXT, as CSXT currently represents only about 20% of the equity in the industry composite sample. Using CSXT's proposed 6% flotation fee solely for purposes of this example, the additive actually included in the average cost of equity would be only 1.2% (6% x 20%).

CSXT in this case is asserting an entitlement to a cost of equity additive that would be *quintuple* the impact of an actual flotation cost on the actual industry average cost of equity. This would produce a massive overrecovery of the actual flotation cost additive to the industry cost of capital. This example demonstrates that there is a major gap in the *Sunbelt* and *TPI* analyses that the Board has not addressed and for which CSXT has not provided a reasonable answer. Absent such an explanation, no such additive should be imposed.

CSXT also asserts that "any residual effects of [past] equity flotation costs on the current railroad industry cost of equity are long gone" and that "[i]t is simply implausible to suggest" otherwise.[6] CSXT again evades the reasoning embodied in relevant precedent. A stock is publicly traded only because equity flotation costs were incurred, and its price and expected returns thus take into account those costs. The impact of the flotation costs does not dissipate with time: "Because any impact of previously incurred flotation costs would be reflected in current stock prices and current investor return expectations, so too would such impact be reflected in the cost of equity capital for those years determined on the basis of an unadjusted DCF formula."[7] The flotation costs thus have an enduring impact and remain embedded in the cost of equity.

Imposing a flotation cost additive on the SARR, when the flotation cost is already reflected in the industry average cost of capital, also would constitute an impermissible barrier to entry, as the CERR effectively would be forced to absorb a higher cost of equity than CSXT and other railroads, as reflected in the industry average cost of capital. The same type of entry barrier would arise from a limitation on the CERR's ability to utilize otherwise available tax benefits arising from the deductibility of interest by requiring the CERR to

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[6] CSXT Supp. Reply at III-G-3.

[7] *Railroad Cost of Capital—1985*, 3 I.C.C.2d at 636. The unadjusted DCF formula refers to the cost of equity methodology used at the time, but the Board's current methodologies continue to seek to rely upon and utilize current stock prices and investor expectations.

amortize its debt on a mortgage basis, when real-world railroads, including CSXT, utilize a coupon-type approach and regularly rollover the debt so as to maintain a relatively stable capital structure, as reflected in the railroad industry cost of capital calculated by the Board.[8]

In short, the Board did not address the full import of prior precedent in its *Sunbelt* and *TPI* decisions, apparently because the Board was not presented with it. However, Consumers has done so now, and shown the Board that there is a major aspect of the cost of equity issue which cannot be ignored. For its part, CSXT has tried to dismiss that precedent, rather than engage it on the merits. As a result, the Board lacks an articulated, meaningful basis on which to depart from its past precedent regarding both the industry cost of capital and the use of that industry cost of capital in a maximum railroad rate proceeding. Lacking such a basis, the Board should adhere to its earlier and long-standing precedent.

b. CSXT Has Not Provided Proper Support for Using a Flotation Cost of 6%

In its Opening Supplemental Evidence, Consumers showed that CSXT's 6% flotation cost figure was unsupported, and was contradicted by the substantially lower 2.1% figure that the Board adopted in *Sunbelt,* and the 2% figure that CSXT itself successfully advocated in *TPI.* Consumers also showed, relying on its expert, that CSXT's approach improperly utilized an average of the

[8] *See* Consumers Op. at III-G-5-11; *see also id.* at IV-21 (showing CSXT's scheduled maturation of debt in Table IV-11), IV-29 (showing CSXT's debt/equity capital ratios in Table IV-13).

flotation costs in recent IPOs that did not take into account any of the specific characteristics of the CERR, and rested on a false equivalency because the other IPOs typically involved only a modest fraction of each company's total equity, and thus substantially overstated the total amount of equity that could actually be traded as a result of the IPO once the lockup period expired.[9]

In response, CSXT has not modified its position. Instead, it: (a) reasserts the legitimacy of its use of an average drawn from a broad array of IPOs; (b) notes that two of those IPOs (Fortress and RailAmerica) involved railroads; and (c) has Mr. Tobias add more recent IPOs to his averaging calculation.[10]

CSXT's Supplemental Reply simply reaffirms the deficiencies in its original submission. CSXT has not shown that any of its supposedly representative IPOs involved new railroads, or covered 100% of a company's equity needs. For these reasons, the Fortress and RailAmerica IPOs fail to provide useful guidance, as Consumers explained in its Opening Supplemental at III-G-14-15 and in the Maughan V.S. at 7-8, 14-15. Mr. Maughan addresses this matter further in his Rebuttal Verified Statement ("Maughan R.V.S.") at 5-6.

CSXT's proposed use of the average flotation cost incurred by various other firms also flies in the face of the established rule that a SARR is, by definition, a least-cost, most-efficient entity. When there is a range of possible

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[9] Consumers Op. Supp. at III-G-13-17; Maughan V.S. at 5-6.

[10] CSXT Supp. Reply at III-G-4-6; Verified Statement of Glenn Tobias ("Tobias V.S."), included as CSXT Supp. Reply Exh. III-G-2, at 1.

costs, it is appropriate and necessary for the SARR to reflect the least-cost alternative.[11] If, for example, there is a range of prices for a given input, Consumers would not be required to adopt the average of those prices, but instead would be expected to incorporate the lowest price into the CERR.[12] The CERR also would be entitled to use a lower price that some other railroad, or even a non-railroad, had paid, provided there was adequate documentation.[13]

Mr. Tobias's data shows a very wide range of equity flotation costs, notwithstanding his claims to the contrary.[14] Significantly, the Board relied on the Facebook IPO for the 2.1% flotation cost adopted in *Sunbelt*, although the correct figure for that flotation cost is 1.1%, as explained in Consumers Opening Supplemental Evidence at III-G-14 & n.28 and incorporated by CSXT in its Supplemental Reply Exhibit III-G-2. CSXT likewise made no effort to explain why the 2.0% flotation cost that it successfully advocated in *TPI* should not also represent an upper limit on any flotation cost in the instant case.

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[11] *See, e.g., AEPCO 2011* at 46 (agreeing that shipper "correctly asserts that it may choose the lowest feasible cost for each category of expense").

[12] *See, e.g., TPI* at 62 (allowing shipper to use CSXT's lowest lease rate for open-top hopper cars).

[13] *Id. at* 86, 88 (shipper allowed to use lowest external benchmark percentage for audit and legal costs, respectively).

[14] Mr. Tobias asserts "that the 6% average is composed of a relatively narrow band of flotation fees across all of the industry sectors." Tobias V.S. at 2. However, there are fees as low 1.1% for Facebook, 0.75% for GM, and 2.35% for PAM. Flotation costs that range from 0.75% to 15.25% (JAG) hardly can be said to form a "narrow band."

The issue is not what flotation costs may be typical for IPOs of $100 million or more for the past ten years, as CSXT frames it in its Supplemental Reply at III-G-6. Rather, assuming that the CERR must incur any flotation cost at all, the question is what is the cost that would be incurred by a least-cost, most-efficient entity without barriers to entry or exit, which barriers include economies of scale, scope, and density. Under those circumstances, and assuming *arguendo* that the CERR is required to utilize an IPO to raise its equity in the first place, the CERR should be allowed to utilize the least-cost option based on findings in prior cases, which would be 1.1%.

Where the Board has settled on a particular approach to, or figure for, a cost item common to all or most SARRs, parties bear a higher burden in seeking use of a different approach or figure. Examples include attrition rates,[15] signal maintainer ratios,[16] insurance ratios,[17] additives for engineering and contingencies,[18] crew shifts,[19] road crossing protection,[20] and mobilization.[21]

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[15] *Sunbelt* at 65 (rejecting Sunbelt's proposed 1.8% attrition rate as "low when compared to past SAC cases").

[16] *Id.* at 79 (finding NS's ratio "more consistent" with recent SARR decisions).

[17] *DuPont/NS* at 135-136 (rejecting DuPont's insurance ratio of 1.96% in favor of NS's 2.36% as being more in line with precedent).

[18] *AEPCO 2011* at 132-133; *WFA I* at 132-133; *Duke/NS*, 7 S.T.B. at 201-204; *CP&L*, 7 S.T.B. at 338-341; *TMPA*, 6 S.T.B. at 746-747; *FMC*, 4 S.T.B. at 823.

[19] *CP&L,* 7 S.T.B. at 291 ("NS . . . provided no reason to depart from the SAC precedent relied upon by CP&L") (citing *FMC,* 4 S.T.B. at 832-833).

Again, it is particularly inappropriate for CSXT to propose a figure that is five times higher than the corrected Facebook IPO cost that CSXT proposed in *Sunbelt*, especially when it relied there on basically the same underlying survey of flotation costs paid by others.

c. Assuming that any Separate Flotation Cost is Appropriate, It Should Not Exceed 0.95% Based on a Private Placement

Consumers explained in its Opening Supplemental Evidence that even assuming *arguendo* that the CERR was required to incur an additional flotation cost for the equity portion of its capital structure, that flotation cost should be based on a private placement, rather than an IPO, and should not exceed 0.95%. Relying on the Maughan V.S., Consumers explained that a private placement was feasible, and the preferred and most practical means for raising that equity. Mr. Maughan further explained that the 0.95% flotation cost, including the exclusion of a flotation cost for the portion of equity that would be assumed by Consumers itself, reflected accepted investment industry practice and would provide the CERR's investment banker with substantially greater compensation than would be received under an IPO. Consumers thus more than met the standards articulated by the Board in *TPI* for showing that a private placement

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[20] *Id.* at 337 ("[i]n the absence of better evidence, it seems reasonable to use this factor in SAC cases, rather than including 100% of the cost of replicating those assets identified in *Engrg Rpts*") (citing *TMPA*, 6 S.T.B. at 742).

[21] *Id.* at 338 (rejecting shipper's figure because it was out of line with precedent).

"would be possible" and "a feasible method for raising the amount of capital necessary" and "what the proper equity flotation fee would be if the sale of equity were to proceed through private placement."[22]

Significantly, CSXT does not challenge either the feasibility of a private placement or the 0.95% flotation cost itself.[23] CSXT concedes that Consumers' position "is consistent with general SAC theory to assume that a hypothetical SARR would raise capital using the most cost effective means."[24] CSXT further concedes that "it may be true that the direct costs of raising equity capital through a private placement would be lower than the direct costs of raising the same equity in a public IPO."[25] Furthermore, CSXT does not challenge Mr. Maughan's derivation of the private placement costs (other than the treatment of Consumers' own equity share, a matter addressed *infra*). As the SARR "may choose the lowest feasible cost for each category of expense,"[26] and CSXT has not contested either the feasibility or the cost of the private placement, that should be the end of the matter.

Nevertheless, CSXT has chosen to present a different argument to oppose the use of a private placement to determine the CERR's flotation costs.

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[22] *TPI* at 28. *See* Consumers Op. Supp. at III-G-7-13 and Maughan V.S.

[23] CSXT challenges only the exclusion for Consumers on the basis of stand-alone cost theory and precedent, a matter that is addressed at III-G-28-30, *infra*.

[24] CSXT Supp. Reply at I-13.

[25] *Id.* (emphasis omitted).

[26] *AEPCO 2011* at 46.

CSXT's argument is to the effect that while the "direct" flotation costs of a private placement may be lower than those for an IPO, allegedly there are higher "indirect" costs in the form of a premium return on equity that is required to compensate investors for the associated lack of liquidity and information asymmetry, such that the "all-in" cost of equity would be higher with a private placement than with an IPO. CSXT presents a related argument to the effect that the IPO costs and public cost of equity should be preferred because they are directly ascertainable.[27]

CSXT's arguments fail for a number of reasons, and should be rejected by the Board.

i. CSXT's Posited Increase to the Industry Average Cost of Equity is Contrary to Board Precedent and Constitutes a Barrier to Entry

The threshold problem with CSXT's theory is that Board precedent effectively dictates that the SARR must use the railroad industry average capital structure, cost of equity, and cost of debt. The Board has previously rejected attempts by both shippers and carriers to use something different.[28] CSXT has not

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[27] CSXT Supp. Reply at III-G-6-8, Exh. III-G-1 (Verified Statement of Bradford Cornell ("Cornell V.S.")), and Exh. III-G-2 (Tobias V.S.).

[28] *FMC,* 4 S.T.B. at 846 (rejecting proposed real options additive for the SARR); *WPL*, 5 S.T.B. at 984 ("As we stated in *FMC* ..., we do not allow an existing railroad to charge captive shippers a rate designed to compensate for risks that the incumbent carrier's investors do not face. Thus, consistent with SAC principles and prior precedent, it would be inappropriate to include UP's proposed adjustment."); *PPL Montana*, 5 S.T.B. at 1111-1112 (rejecting real options adjustment); *AEPCO 2011* at 137 (rejecting use of CAPM instead of hybrid figure

begun to meet the high threshold that the Board has set to utilize a cost of equity that deviates from the industry average. To the contrary, CSXT has done nothing more than to speculate that the cost of equity must be higher, without any attempt to quantify the supposed premium or any consideration of those aspects in which the CERR might have a lower cost of equity, such as its reduced risk profile due to its selective traffic group, in particular the absence of TIH traffic, and the presence of Consumers as a significant and long-term "off-take" customer.[29] CSXT's "proof" consists solely of a purely hypothetical example that supposedly shows how an increase in indirect costs could offset the savings in direct costs.[30] While a hypothetical example may be useful to *illustrate* a principle, it does not constitute one, and does not represent empirical proof sufficient to meet the burden to establish a cost of equity that deviates from the industry average.

CSXT's attempt to link the cost of equity to the type of flotation is improper in additional respects. First, it is established that the CERR "may choose the lowest feasible cost for each category of expense."[31] The fact that the flotation cost for a private placement is lower than that for an IPO does not preclude the

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for 2008); *Omaha Pub. Power District v. Burlington N. R.R. Co.*, 3 I.C.C.2d 123, 147-148 (1986).

[29] As explained at III-G-25-26, *infra*, the fact that the CERR's equity is privately and not publicly held actually would give its investors more information about and control over the entity, and thus reduce the risk associated with nonresponsive management.

[30] Tobias V.S. at 6-7 & n.6.

[31] *AEPCO 2011* at 46.

SARR from combining a private placement flotation cost with an industry average cost of equity computed by reference to publicly traded companies. There is no SAC rule that binds Consumers to a single source for other categories of expenses; a complainant under the SAC Constraint is free to select a low cost from one bid for a particular item and a low cost from another bid for a related item. For example, the shipper in the *AEPCO 2011* case was allowed to use the lower locomotive system-average servicing costs of BNSF, and was not required to use the higher costs of UP or an average of the two, even though AEPCO's hypothetical stand-alone system incorporated parts of UP's system as well as BNSF's system.[32] Individual cost factors are assessed and determined independently, even for items that may be related, and without the type of linkage presumed by CSXT. Again, the objective remains to find the lowest feasible cost in each individual cost category.

Prohibiting the CERR from choosing the lowest feasible cost item in each individual cost category also would constitute an impermissible barrier to entry. "[W]e do not allow an existing railroad to charge captive shippers a rate designed to compensate for risks that the incumbent carrier's investors do not face." *WPL*, 5 S.T.B. at 983-84 (rejecting the carrier's posited additive based on a real options analysis that would apply only to the SARR, because it operates in an environment without barriers to entry or exit, unlike the incumbent, *id.* at 983,

[32] *Id.* at 45-46.

n.79). The industry average cost of equity compensates for the financial risk that railroad industry investors assume. Charging anything more would overcompensate CSXT by allowing it to recover for a risk and a cost that its investors do not face.

Finally, CSXT's notion that the CERR should have a higher cost of equity because its equity is not publicly traded is contradicted by the Board's treatment of BNSF. Because BNSF is no longer a publicly-traded railroad, it is excluded from the composite sample used to determine the industry average cost of capital, even though there is substantial reason to conclude that its presence would lower that cost.[33] Nonetheless, the industry cost of capital is still used to review BNSF's annual revenue adequacy status[34] and the reasonableness of BNSF's rates for small rate case purposes,[35] and certainly would be the presumptive standard if a full stand-alone rate case were brought against BNSF.

CSXT has provided no basis for deviating from the established principles that: (a) if the CERR is required to reflect a cost of obtaining equity capital, it should be the lowest cost at which it is feasible for the CERR to obtain that capital, just as other inputs reflect the lowest feasible cost; and (b) the cost of

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[33] *Railroad Cost of Capital—2010*, EP 558 (Sub-No. 10) (STB served Sept. 30, 2011) at 2 n.4 and 7.

[34] *Railroad Revenue Adequacy—2015 Determination*, EP 552 (Sub-No. 20) (STB served Sept. 8, 2016) at 1.

[35] *E.g., Simplified Standards For Rail Rate Cases—2014 RSAM and R/VC$_{>180}$ Calculations*, EP 689 (Sub-No. 1) (STB served Feb. 26, 2016) (calculating RSAM and R/VC$_{>180}$ calculations for BNSF using the same industry average cost of capital as for other, publicly-traded carriers).

compensating the CERR's equity investors should not exceed the railroad industry cost of equity as determined by the Board based on the industry composite sample.

ii. CSXT has Not Supported its Claims that Investors Would Demand a Premium Return on a Private Equity Investment

CSXT and its witnesses posit that the CERR's equity investors would demand a premium return for investing in a private placement instead of an IPO, in order to offset the supposed lack of marketability or liquidity and alleged informational asymmetry flowing from the CERR's status as a privately-held entity. Dr. Cornell and Mr. Tobias reference various articles for their claims, but their reliance on the articles is highly selective, and their claimed sources do not provide support for CSXT's asserted conclusions.

As Mr. Maughan explained in his initial V.S. and explains more fully in his Rebuttal V.S., the lack of liquidity is not a problem, but is instead a benefit for the long-term investors that would purchase equity in the CERR in order to cover their long-term liabilities.[36] Mr. Maughan further explains that the CERR investors will not suffer from any informational deficit, but instead will be able to obtain more information than they would with a publicly-traded company. Mr. Maughan adds that the CERR investors will benefit from management that will seek to maximize the long-term value of the operations in ways that are typically not possible for publicly-traded companies. Mr. Maughan also explains

[36] Maughan V.S. at 2, 6, 10, 20.

that because the private equity investors will own all of the company and will directly provide all of the equity capital, the concerns posited by CSXT's witnesses about acquiring equity at a discount in order to obtain a premium return are entirely misplaced.[37]

Mr. Maughan explains that companies seldom have a free choice about whether to pursue a private placement or a public offering. The selection is usually dictated by circumstances, timing, and the nature of the company raising the equity.[38] As a result, any comparisons drawn after the fact based on past performance are unlikely to be apples-to-apples.[39] Moreover, information about flotation costs in private placements is not publicly available, which further precludes the sort of direct comparisons relied upon by CSXT and its experts. Dr. Cornell even acknowledges this reality in quoting an article that states that "[a]ny analysis of the private placement market is handicapped by a lack of readily available information. Because the securities are not registered with the SEC, only limited data about transactions are publicly available, and most participants disclose relatively little about their operations."[40]

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[37] Maughan R.V.S. at 1-4, 7-12.

[38] *Id.* at 1-2, 4, 7.

[39] *Id.* at 2, 6.

[40] Cornell V.S. at 10 n.29, quoting Carey, Mark, Stephen Prowse, John Rea, *et al.*, *The Economics of the Private Placement Market*, Bd. of Governors of the Fed. Reserve Sys., Dec. 1993, at 6 (preface).

The analyses and comparisons referenced by Dr. Cornell and Mr. Tobias necessarily involve transactions quite different from an entity such as the CERR.[41] In particular, a number of the referenced passages seek to compare the prices, returns, or discounts received or experienced for PIPEs relative to SEOs.[42] A PIPE is a "private investment in public equity" and a SEO is a "seasoned equity offering." Both involve companies that have already gone public and are selling additional equity. The equity is placed privately in a PIPE, and is publicly offered in a SEO. However, both involve companies that are already public and already existent and operating, as opposed to a new entrant without already existing operations that is not a publicly traded company and is raising 100% of its needed equity in a single offering. The PIPEs and SEOs thus are very different from the CERR, and the effort to extend a statistical comparison between PIPEs and SEOs to the CERR is inherently flawed and improper.[43]

These articles were included in CSXT's workpapers (albeit without e-workpaper cross-references in the text), and thus are not separately included by Consumers.

[41] Maughan R.V.S. at 2, 6, 10.

[42] *See, e.g.,* Cornell V.S. at 7 & nn.19-20, citing, *inter alia*, Carpentier, Cecile, Jean-Francois L'Her, and Jean-Marc Suret, *The Costs of Issuing Private Versus Public Equity for Entrepreneurial Ventures*, The Oxford Handbook of Private Equity, March 2012 ("Carpentier 2012"), pp. 7-8; Ferreira, Eurico and Leroy D. Brooks, *On Public versus Private Equity Placements: Pedagogical Illustrations, Financial Practice and Education,* Fall/Winter 2000, p. 243; Chen, Hsuan-Chi, Na Dai, and John D. Schatzberg, *The Choice of Equity Selling Mechanisms: PIPEs versus SEOs*, Journal of Corporate Finance, Vol. 16, 2010, p. 113.

[43] Maughan R.V.S. at 2-6.

Because companies seldom have a free choice as to their financing methods, which are dictated by other constraints,[44] it is very likely that the measured differences, such as in bid-ask and other spreads,[45] reflect differences among the companies or their circumstances rather than differences in the impact of liquidity or how the companies' shares are marketed. For example, the Damodaran article relied upon by Mr. Tobias[46] notes that "the discounts estimates from these small samples have to be considered with caution,"[47] "[i]t is likely that what these studies conclude is a marketability discount is reflective of other factors,"[48] and "[t]he perils of concluding that these discounts are for marketability are manifold."[49] The studies do not support the conclusions that CSXT and its witnesses assert.

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[44] *Id.* at 7.

[45] Bid-ask spreads rise only when something is being offered to a larger market. The CERR's equity holders are investing for the long-term, and such spreads are of no relevance unless and until they might choose to sell, and then only if they seek to do so through some sort of larger market, as opposed to a more direct relationship, such as through a merger and acquisition-type transaction, such as how RailAmerica acquired numerous short lines. Bid-ask gaps thus say nothing about how the CERR raises its equity through a private placement.

[46] Tobias V.S. at 3 n.2, referencing Damodaran, A., *Marketability and Value: Measuring the Liquidity Discount* (2005) ("Damodaran"), *available at* http://people.stem.nyu.edu/adamodar/pdfiles/papers/liquidity.pdf.

[47] Damadoran at 30.

[48] *Id.* at 31.

[49] *Id.* at 33.

Similarly inapposite is Cornell's reference to "a discount [that] is given to private investors off the firm's true value."[50] The notion of a discount off of true value has no applicability to the CERR. The CERR's investors are not purchasing their interests at a discount relative to other, prior investors, as there are no existing shareholders or others whose interests are being diluted. The CERR is presumed to require $440 million of equity, that $440 million represents all of the CERR's equity, the investors are acquiring all of that equity, there is no other equity in the company, and the investors are acquiring the company at its "true" value by providing the equity that the company is deemed to require. As Mr. Maughan succinctly states, "100% of 100% is 100%."[51]

CSXT and its witnesses also ignore the inefficiencies and discounting that often accompany public offerings. As explained by Consumers' expert Mr. Maughan, CSXT's witnesses do not mention how IPOs are priced to provide a "pop" in the price of stock shortly after issuance, in order to create interest and reward initial purchasers. This "pop" represents value and is the equivalent of a discount off of the full value of the proceeds that could be obtained from the issuance.[52] CSXT similarly fails to mention the stock price reduction that

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[50] Cornell V.S. at 7 n.20, quoting Ferreira and Brooks (2000) at 243.

[51] Maughan R.V.S. at 11.

[52] *Id.* at 3. CSXT's witnesses also do not address how additional shares owned by insiders become tradeable following expiration of the IPO's lockup period.

regularly occurs with the issuance of an S1 for a secondary offering.[53] An analysis purporting to compare the "all-in cost" of private placements and public offerings that considers the supposed inefficiencies of the former while ignoring those of the latter is necessarily incomplete and cannot be relied upon.

CSXT's witnesses also reference articles noting that illiquid investments have provided a higher return than public equities during certain time periods, and from that they infer that investors will not invest in private equity unless that premium return is assured.[54] However, *ex post* performance is not the same thing as *ex ante* requirements or expectations: just because an investment turns out a certain way during certain years does not mean that investors would have been unwilling to invest without some posited premium, and these investments do not come with assurances of any particular performance, either absolute or relative to something else.[55]

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[53] *Id.*

[54] Tobias V.S. at 3 & n.2, citing Ljungqvist, Alexander, and Matthew P. Richardson, *The Cash Flow, Return and Risk Characteristics of Private Equity,* SSRN Electronic Journal (2003) NBER Working Paper Series, *available at* http: //citeseerx.ist.psu.edu/viewdoc/download?doi= 10.1 .1.20 1 .2476&rep=rep I &type=pdf; Blackstone Private Wealth Management, *Patient Capital, Private Opportunity: The Benefits and Challenges of Illiquid Alternatives,* (Sept. 2014), *available at* https://www.blackstone.com/docs/default-source/black-papers/patient-capital-privateopportunity.pdf?sfvrsn=O; Harris, Robert S., Tim Jenkinson, and Steven N. Kaplan, *Private Equity Performance: What Do We Know?* (Sept. 23, 2011), *available at* http://faculty.chicagobooth.edu/steven. kaplan/research/ hjk.pdf. The first two articles are also referenced in Cornell V.S. at 7 n.21, 8 n.23, and 11 n.34.

[55] Maughan R.V.S. at 2, 6-7, 10.

For example, one article referenced by both Cornell and Tobias states that "[o]ne interpretation of this magnitude [of excess returns of private equity relative to the aggregate public equity market] is that it represents compensation for holding a 10-year illiquid investment."[56] Stating that "one interpretation" of the difference may relate to compensation is hardly equivalent to concluding that investors demand or require such compensation in all circumstances, or necessarily receive it.

Significantly, the relationship between performance in the private equity and public markets also is far more varied and nuanced than CSXT and its witnesses acknowledge. For example, the article by Harris, *et al.*, "Private Equity Performance: What Do We Know," finds it "likely that buyout funds have outperformed public markets, particularly the S&P 500, net of fees and carried interest, in the 1980s, 1990, and 2000s," whereas "VC [venture capital] funds outperformed public markets substantially until the late 1990s, but have underperformed since." *Id.* at 28. As a new entrant, the CERR is more analogous to venture capital than a leveraged buyout of an already existing firm. CSXT's logic would infer that a SARR, as a new entrant, actually would have a *lower* cost of equity capital based on such underperformance. A later analysis by the same authors from 2015 that includes more recent data finds that for buyout funds,

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[56] Ljungqvist and Richardson, at 1. The article is from 2003 and thus does not incorporate any recent information from the period in which the CERR would be raising its equity.

"[p]ost-2005 vintage year returns have been roughly equal to those of public markets."[57] Venture capital funds, in contrast, have "varied substantially over time," but "recent vintages have seen a modest rebound."[58]

The broad record shows that private equity returns are quite variable as compared to public equities, and does not show the uniform premiums required for CSXT's conclusions.[59] In addition, the relative results appear negatively correlated with the relative investment, meaning that the investments do better or worse when there is less or more money being placed in those investments.[60] That relationship suggests that there is value in both contrarian investing compared to the public markets, and in diversification. In any event, there is no assurance that private equity will outperform public markets. Investors making a given equity investment normally are seeking a superior return (or sometimes stability or diversification), but there is no assurance that they will receive one, regardless of whether they are investing in private or public equity.

CSXT and its witnesses address liquidity and information concerns with investments in equity that is not publicly traded, but they omit any discussion

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[57] Harris, Robert S., Tim Jenkinson, and Steven N. Kaplan, *How do Private Equity Investments Perform Compared to Public Equity?* (June 2015), https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2620249_code17166.pdf?abstractid=2597259&mirid=1, included as Consumers Reb. Supp. e-workpaper "EFC-Harris2015.pdf," at 1.

[58] *Id.*

[59] Maughan R.V.S. at 6.

[60] Harris, *et al.* (2015), e-workpaper "EFC-Harris2015.pdf," at 2.

of the important role played by private equity management in obtaining results.[61] The Blackstone article[62] noted by both Dr. Cornell and Mr. Tobias shows that private equity returns vary substantially depending on the particular manager chosen.[63] The Ljungqvist article at 20 also notes a substantial divergence between the median and mean results, and "suggests that there is a fair amount of skewness in the distribution of possible values" and that "there is a significant downside in the form of funds performing poorly on a relative basis."[64] Again, there is no assurance that private equity will outperform public markets.

The Blackstone and Ljungqvist analyses do indicate that the choice of manager does play a major role in the performance of a private equity investment. It follows that any premium returns are more of a function of management than liquidity or informational asymmetry.[65] Another article explains that "[f]inally, by placing funds with active investors (the limited partnerships) that take controlling positions in companies and monitor and sometimes change management, pension funds can participate in the increased returns generated by

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[61] Maughan R.V.S. at 8-10.

[62] Blackstone Private Wealth Management, *Patient Capital, Private Opportunity: The Benefits and Challenges of Illiquid Alternatives,* (Sept. 2014), https://www.blackstone.com/docs/default-source/black-papers/patient-capital-privateopportunity.pdf?sfvrsn=O.

[63] *Id.* at 6 (noting that the difference between top and bottom quartile managers in private equity can be over 30%).

[64] Ljungqvist and Richardson, at 20.

[65] Maughan R.V.S. at 8-10.

the turning around of poorly managed companies."[66] Private equity thus provides an ability and opportunity to exercise control that shareholders in publicly-traded companies typically lack.[67]

Private equity managers bring substantial expertise and experience to their investments, and often have personnel with substantial operational capabilities available to provide additional assistance. Mr. Maughan notes that the importance of management should be very apparent to CSXT, as the price of its own stock has recently surged in conjunction with a changeover in its top management.[68] Yet, CSXT and its witnesses seek to attribute private equity's performance entirely to illiquidity and informational asymmetry, and give no consideration to, and make no effort to measure, whether the supposed premium returns are associated with the exercise of sound management and control.

Another factor ignored by CSXT and its witnesses is the role of leverage. Private equity investments tend to be highly leveraged, and that leverage contributes to increased returns associated with such funds:

> Independent studies have repeatedly shown that, overall, PE funds earn returns that are almost exactly comparable to what could be achieved by buying a broad index of small-cap stocks with leverage. It is not too much of a stretch to say that, in the aggregate,

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[66] Carey, Mark, Stephen Prowse, John Rea, *et al.*, *The Economics of the Private Placement Market*, Board of Governors of the Federal Reserve System, December 1993, at 6 (preface), referenced in Cornell V.S. at 10 & n.29.

[67] Maughan R.V.S. at 9.

[68] *Id.* at 9-10.

> PE funds simply arbitrage earnings yields against the interest rates on high-yield bonds.[69]

In contrast, the CERR is required to use the same capital structure as the Board's composite sample for the railroad industry, which reflects very low leverage, *i.e.*, less than 20% debt overall. The CERR's lack of leverage is another reason that its investors would not require the premium return required for other private equity investments, even assuming such premium returns generally are required elsewhere (which is not the case).

CSXT's claims regarding informational asymmetry also are inapplicable to the CERR. The CERR is not an established company that is being marketed to outsiders that know nothing about the business, and who could be placed at an information disadvantage. The CERR, or rather its investment banker, will seek out sophisticated investors who already have a track record of having invested in this type of investment, and whose managers already will have accumulated experience.[70] Moreover, because the CERR is a new company seeking its original financing, there will not be insiders seeking to conceal information or limit disclosure to newcomers, and the original investors will be

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[69] *Private equity: The propaganda versus the facts*, Economist (Sept. 21, 2012), included as Consumers Reb. Supp. e-workpaper "EFC-EconomistLeverage.pdf," at 3, citing Ulf Axelson, *et al.*, *Borrow Cheap, Buy High? The Determinants of Leverage and Pricing in Buyouts* (Sept. 2012), included as Consumers Reb. Supp. e-workpaper "EFC-BorrowCheap.pdf," and *available at* https://papers.ssrn.com/sol3/ Delivery.cfm/ SSRN_ID2160391_code372908.pdf?abstractid=1596019&mirid=1.

[70] Maughan R.V.S. at 7-10; Maughan V.S. at 10.

acquiring 100% of the company.[71] As a result, the equity investors will have access to more information than they would as shareholders in a publicly-traded company, as explained by Mr. Maughan.

The investors, and their seasoned managers and experienced advisors, also will have a greater ability to participate in the actual management of the company, as compared to the ability only to vote on directors and proxy items in the case of publicly-traded companies. Management, in turn, will be able to focus on long-term value, rather than having to meet quarterly estimates determined by outside analysts, who also are not in a position to receive information beyond that available to the public. "Indeed, CSXT would be legally prohibited from selectively disclosing information to analysts that was not reflected in a public disclosure."[72] As noted by Mr. Maughan, even the former chairman of the Board has noted the advantage that a private railroad enjoys relative to a publicly-traded one:

> If anything, the new structure enables us to focus more on the longer term, which is especially important in a capital-intensive business like ours where our assets are long-lived and our investment projects extend over many years.[73]

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[71] *Id.* at 11.

[72] CSXT Reply to Complainant's Second Motion to Compel filed July 6, 2015, at 15.

[73] Maughan R.V.S. at 9, quoting Roger Nober from https://www.bnsf.com/employees/communications/railway/pdf/201003_ex.pdf, included as Consumers Reb. Supp. e-workpaper "ECF-BNSF.pdf," at 5.

In short, the statements by CSXT and its witnesses regarding return premiums that may – sometimes – be observed for investments in other non-public investments have no bearing on the willingness and ability of CERR to attract investment at the industry-average cost of equity.[74] The articles referenced by CSXT's witnesses simply do not address a company in the situation of the CERR. The CERR's investors will not be disturbed by a lack of liquidity or informational asymmetry. To the contrary, the lack of liquidity will be an advantage, and the investors will have the ability to obtain more information and have more input than with a publicly-traded company. Nor does illiquidity and informational asymmetry explain the premiums sometimes enjoyed by private equity investors, as the role of management and leverage also must be taken into account. There is no plausible basis for concluding that the CERR's use of a private placement to obtain its equity will result in any increase in its cost of capital or "all-in costs" of obtaining its equity.

iii. "Consistency" is No Reason to Base the Equity Flotation Cost on an IPO

CSXT presents a public policy-type argument that the equity flotation cost should be based on an IPO in order to be consistent with the fact that the railroad industry average cost of capital reflects data from publicly-traded companies.[75] Dr. Cornell adds that "[d]evising a proper methodology based on

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[74] Maughan R.V.S. at 4.

[75] CSXT Supp. Reply at III-G; Cornell V.S. at 11.

private companies to supplant the STB's established, public-based approach would be difficult, controversial, and time-consuming."[76]

CSXT's contentions fail on several fundamental levels. First, the objective is to determine what costs would be experienced by least-cost, most-efficient competitor without barriers to entry or exit. Such a new entrant "may choose the lowest feasible cost for each category of expense,"[77] and is not required to duplicate the methods of the incumbent.[78] The basic nature of the stand-alone cost test should not be sacrificed on the altar of some notion of consistency, or because doing so properly somehow poses a challenge, particularly one that is not so difficult to overcome. CSXT is essentially seeking to impose the sort of entry barrier that is anathema to stand-alone cost analysis.

Second, CSXT's notion of consistency is outcome-oriented. The flotation cost is based on an average of companies that consist almost entirely of non-railroads. The flotation cost for a SARR should reflect the lowest cost option that is feasible, and not an average of the costs paid by others.[79] To the extent there is any inconsistency, it is in foreclosing a complainant from showing that the SARR would have a lower cost of equity. The agency's decision to deviate from

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[76] Cornell V.S. at 11.

[77] *AEPCO 2011* at 46.

[78] *Coal Rate Guidelines*, 1 I.C.C.2d at 543.

[79] *AEPCO 2011* at 13 ("the complainant can propose a hypothetical SARR that would change all these features of the real world operation, so long as the alternative service would itself be feasible and supported").

contestability theory in this respect should not become a lever to extract another deviation in some other context.

Third, insofar as the objective is to reduce controversy and adhere to precedent, the appropriate approach would to rely on the industry average cost of capital and previous precedent finding that the flotation cost is embedded in the cost of capital and is to be augmented only in those years in which a railroad actually issues equity, and then only for the railroad that actually issues the equity. CSXT appears to have a peculiar sense of what it means to adhere to precedent, particularly insofar as it is seeking an equity flotation cost additive three to five times larger than those adopted in *Sunbelt* and *TPI*.

iv. No Flotation Cost Should Attach to the Equity Provided by Consumers

Consumers explained that as a principal beneficiary of the CERR, Consumers would be expected to assume an ownership share of around 10% of the equity and that no equity flotation cost would attach to that ownership share.[80] CSXT disputes this exclusion from the equity flotation cost. Significantly, CSXT makes no effort to dispute Consumers' factual analysis of what would happen in the real world. CSXT argues instead that the exclusion violates stand-alone cost

[80] Consumers Op. Supp. at III-G-12 and Maughan V.S. at 13-14, 20. The SAC costs would include a full return on that portion of the CERR's equity, of course.

theory and is inconsistent with Board precedent, particularly regarding the attribution of taxes to a parent.[81]

CSXT's stand-alone cost theory argument is to the effect that the CERR would be getting something for free, *i.e.*, the treatment "is no different than if [Consumers] claimed that it would pay the costs of building bridges or buying rail for the SARR."[82] What CSXT ignores is that Consumers will be receiving the same return on its investment – at the railroad industry average cost of equity – as the CERR's other investors.[83]

Accordingly, the issue is not whether the SARR is obtaining free capital, but instead what is the friction or transactional cost to acquire that equity. If a cost would not be incurred in the real world, then it certainly should not be attributed to a least-cost, most-efficient new entrant. Imposing such a cost is simply an entry barrier.

Consumers' approach does no violence to the entity principle or the precedents cited by CSXT. The treatment would be identical if there was some other primary customer that was not the complainant.[84] The issue in the two precedents cited by CSXT was a limitation on the SARR's ability to use available

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[81] CSXT Supp. Reply at III-G-8-9, relying upon *Bituminous Coal—Hiawatha, UT to Moapa, NV*, 6 I.C.C.2d 1, 74 (1989), *Coal Trading Corp., et al. v. B&O R.R., et al.*, 6 I.C.C.2d 361, 433 (1990).

[82] *Id.* at III-G-8.

[83] Maughan V.S. at 14.

[84] *Id.* at 13 ("If the project accrues to the benefit of a particular sponsor, then that sponsor would be expected to co-invest.").

tax benefits.[85] At the time of the precedents, there was no additional equity flotation cost additive, and the exclusion of such an additive is the appropriate approach under those precedents. The instant issues are what transactional costs are incurred in acquiring the needed equity, and whether the SARR and/or its investors should be required to absorb a cost that would not exist in the real world. The obvious answer is that a SARR and its investors should not be required to incur a transactional cost that they would avoid in the real world context.

[85] It may well be appropriate to reconsider the tax benefits to parent principle insofar as Berkshire Hathaway acquired BNSF in significant part to benefit from the float associated with the carrier's deferred tax liabilities.

III. H. RESULTS OF SAC ANALYSIS

1. Results of SAC DCF Analysis

Consumers has modified the DCF model used for its Opening Supplemental Evidence to accommodate the modest cost adjustments described in Parts III-B through III-F, *supra*.

k. Summary of SAC

Consumers' Rebuttal Supplemental calculation of total SAC for the CERR is presented in Table L of Rebuttal Supplemental Exhibit III-H-1, and compared with CSXT's Supplemental Reply values in Table III-H-1 below.

Rebuttal Table III-H-1

Summary of CSXT Supplemental Reply and Consumers Rebuttal Supplemental SAC Results for the CERR

($ in millions)

	CSXT Supplemental Reply[1/]			Consumers Rebuttal Supplemental[2/]		
Year	SAC	SARR Revenue	Over-Payments (Shortfall)	SAC	SARR Revenue	Overpayments (Shortfall)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2015	$156.4	$102.8	($53.7)	$111.5	$136.5	$25.0
2016	$148.7	$86.9	($61.8)	$105.7	$118.7	$13.0
2017	$156.0	$104.7	($51.3)	$114.9	$152.7	$37.7
2018	$161.0	$100.7	($60.3)	$119.1	$153.3	$34.2
2019	$167.9	$104.6	($63.3)	$124.1	$158.0	$34.0
2020	$175.6	$113.9	($61.7)	$130.8	$173.4	$42.7
2021	$182.3	$115.5	($66.8)	$136.2	$179.9	$43.7
2022	$189.8	$123.4	($66.4)	$142.4	$193.7	$51.3
2023	$195.2	$118.9	($76.3)	$146.5	$194.7	$48.2
2024	$203.4	$131.6	($71.8)	$153.7	$215.2	$61.5

[1/] *See* CSXT Supp. Reply e-workpaper "Exhibit III-H-1_Supp_Reply.xlsm," tab "Summary."

[2/] *See* Consumers Reb. Supp. e-workpaper "Exhibit III-H-1_Rebuttal_Supplemental.xlsm," tab "Summary."

As shown in Table III-H-1, the CERR revenues exceed the stand-alone costs in each year of the study period. Under the *Guidelines'* SAC Constraint, where stand-alone revenues are shown to exceed costs, rates for the members of the traffic group must be adjusted to bring revenues and SAC into equilibrium.

4. Maximum Reasonable Rates

The SAC analysis described in Consumers' Opening Supplemental Evidence and in Parts III-A through III-G of this Rebuttal Supplemental, and displayed in Rebuttal Supplemental Exhibit III-H-1, demonstrates that over the 10-year DCF period, the revenues generated by the CERR exceed its total capital and operating costs. Table III-H-2, below, shows the measure of excess revenue over SAC in each year of the 2015-2024 DCF period.

Table III-H-2
Summary of Consumers Rebuttal Supplemental DCF Results for the CERR
January 1, 2015 to December 31, 2024

Year	Annual Stand-Alone Requirement	Stand-Alone Revenues	Over-Payments (Shortfall)	PV Difference	Cumulative PV Difference
(1)	(2)	(3)	(4)	(5)	(6)
2015	$111,518,098	$136,504,338	$24,986,240	$23,861,715	$23,861,715
2016	$105,690,001	$118,690,165	$13,000,164	$11,148,702	$35,010,417
2017	$114,934,967	$152,653,854	$37,718,887	$29,197,881	$64,208,297
2018	$119,089,212	$153,251,152	$34,161,940	$23,869,975	$88,078,272
2019	$124,066,942	$158,047,079	$33,980,137	$21,431,449	$109,509,722
2020	$130,759,942	$173,440,366	$42,680,423	$24,298,089	$133,807,811
2021	$136,158,816	$179,867,338	$43,708,522	$22,460,866	$156,268,677
2022	$142,393,030	$193,734,521	$51,341,491	$23,814,740	$180,083,417
2023	$146,452,444	$194,698,444	$48,246,000	$20,200,199	$200,283,616
2024	$153,667,049	$215,159,182	$61,492,133	$23,239,720	$223,523,336

Source: Consumers Reb. Supp. e-workpaper "Exhibit III-H-1_Rebuttal_Supplemental.xlsm," tab "Netting."

Application of the Board's Maximum Markup Methodology yields the following maximum R/VC ratios for the rates that CSXT lawfully can charge

to transport Consumers' Campbell Station coal traffic in each year of the DCF model.

Rebuttal Table III-H-3
Rebuttal Supplemental MMM Results

Year	Maximum R/VC Ratios
(1)	(2)
2015	363.8%
2016	429.3%
2017	315.1%
2018	330.6%
2019	332.7%
2020	306.6%
2021	303.2%
2022	283.8%
2023	286.2%
2024	255.4%

Source: Reb. Supp. Exh. III-H-2

As shown in Table III-H-3, the maximum R/VC ratios range from 255.4% to 429.3% over the 10-year DCF period.

As applied to the unadjusted system average Phase III URCS variable costs for the issue movement, the following maximum reasonable rates apply to the transportation of coal by CSXT to Campbell from the Chicago interchange, at 1Q2015 wage and price levels.

Table III-H-4
CONSUMERS' MMM RATES PER TON – 1Q15

CSXT Origin (1)	Car Type (2)	MMM Rate Per Ton 1Q15 (3)
1. Chicago, IL	Gondola	$10.37
2. Chicago, IL	Hopper	$10.22

Source: Consumers Reb. Supp. e-workpaper "1Q15 to 1Q16 MMM Rates_Rebuttal_Supplemental.xlsx," tab "Rates," cells D28 and E28.

The maximum lawful rates under the SAC Constraint for the transportation of coal from the origin covered by Tariff CSXT-13952, Amendment 1, equals the greater of the jurisdictional threshold or the MMM maximum rates. Table III-H-5 compares CSXT's rates to Consumers' Campbell Station to the jurisdictional threshold and to the MMM maxima, through 1Q2016. The issue rates are higher than both the jurisdictional threshold and the MMM rates.

Table III-H-5

MAXIMUM RATE SUMMARY FOR 1Q15 TO 1Q16

Quarter	CSXT Rate Level (Including fuel surcharge)	Jurisdictional Threshold per Ton	MMM Rate Per Ton	Maximum Rate Per Ton[1/]
(1)	(2)	(3)	(4)	(5)
Gondola				
1. 1Q 2015	$14.95	$5.13	$10.37	$10.37
2. 2Q 2015	$14.95	$5.20	$10.51	$10.51
3. 3Q 2015	$14.95	$5.17	$10.44	$10.44
4. 4Q 2015	$15.07	$5.09	$10.29	$10.29
5. 1Q 2016	$15.33	$4.93	$11.76	$11.76
Hopper				
6. 1Q 2015	$14.95	$5.06	$10.22	$10.22
7. 2Q 2015	$14.95	$5.13	$10.37	$10.37
8. 3Q 2015	$14.95	$5.09	$10.29	$10.29
9. 4Q 2015	$15.07	$5.02	$10.15	$10.15
10. 1Q 2016	$15.33	$4.88	$11.64	$11.64

[1/] The Maximum rate per ton equals the greater of the Jurisdictional Threshold (Column (3)) or MMM Rate (Column (4)) per ton.

Source: Consumers Reb. Supp. e-workpaper "1Q15 to 1Q16 MMM Rates_Rebuttal_Supplemental.xlsx," tab "Rates."

5. Reparations

CSXT owes Consumers the difference between transportation charges paid based on the rates assessed by CSXT under Tariff CSXT-13952 from and after January 1, 2015, and the charges that would have been paid had they been based on the maximum lawful rate levels shown herein. The principal reparations amount will increase until CSXT reduces the Campbell rates to the maximum reasonable level(s). Consumers also is entitled to interest on all principal reparations amounts, calculated from the date that the first unlawful charge was paid at the rates assessed under Tariff CSXT-13952, and otherwise in accordance with the Board's regulations at 49 C.F.R. Part 1141.1, *et seq.*, and its ruling in *Ex Parte No. 715* at 35-36 and 41.

PART V

WITNESS VERIFICATIONS

This Part contains the Verifications of Consumers' witnesses who are sponsoring evidence on behalf of Consumers Energy Company as part of the Rebuttal Supplemental Evidence. All of the witnesses' Statements of Qualifications appear in Part V of Consumers' Opening Evidence.

VERIFICATION

I, Richard C. Balas, verify under penalty of perjury that I am the same Richard C. Balas whose Statement of Qualifications appears in Part V of the Narrative portion of Consumers Energy Company Opening Evidence in this proceeding; that I have read Part III-F of the Rebuttal Supplemental Evidence regarding SARR construction costs that I am co-sponsoring; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

R C Balas

Richard C. Balas

Executed on April 12, 2017

VERIFICATION

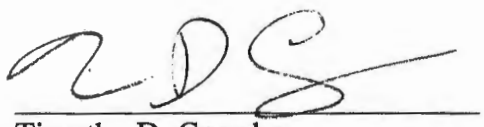
I, Thomas D. Crowley, verify under penalty of perjury that I am the same Thomas D. Crowley whose Statement of Qualifications appears in Part V of the Narrative portion of Consumers Energy Company Opening Evidence in this proceeding; that I have read the Rebuttal Supplemental Evidence relating to the SARR traffic selection and revenue in Part III-A as well as Part III-G and III-H that I am co-sponsoring with Witness Daniel L. Fapp, that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Thomas D. Crowley

Executed on April 13, 2017

VERIFICATION

I, Timothy D. Crowley, verify under penalty of perjury that I am the same Timothy D. Crowley whose Statement of Qualifications appears in Part V of the Narrative portion of Consumers Energy Company Opening Evidence in this proceeding; that I have coordinated the workpaper production of all electronic files in accordance with the Surface Transportation Board's ("STB") March 12, 2001 decision in Ex Parte No. 347 (Sub-No.3), *General Procedures for Presenting Evidence in Stand-Alone Cost Rate Cases* and the STB's July 10, 2015 decision in NOR 42142 *Consumers Energy Co. vs. CSXT* for the format of evidence to be presented, that I have read the Rebuttal Supplemental Evidence related to roadbed preparation/earthworks of the road property investment cost of the SARR in Part III-F that I am sponsoring, that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Timothy D. Crowley

Executed on April 13, 2017

VERIFICATION

I, Brian A. Despard, verify under penalty of perjury that I am the same Brian A. Despard whose Statement of Qualifications appears in Part V of the Narrative portion of Consumers Energy Company Opening Evidence in this proceeding; that I have read the Rebuttal Supplemental Evidence relating to the development of operating expenses in Part III-D that I am sponsoring, that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Brian A. Despard

Executed on April 13, 2017

VERIFICATION

I, Daniel L. Fapp, verify under penalty of perjury that I am the same Daniel L. Fapp whose Statement of Qualifications appears in Part V of the Narrative portion of Consumers Energy Company Opening Evidence in this proceeding; that I have read the Rebuttal Supplemental Evidence relating to the SARR traffic selection and revenue in Part III-A as well as Part III-G and Part III-H that I am co-sponsoring with Witness Thomas D. Crowley, that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Daniel L. Fapp

Executed on April 13, 2017

VERIFICATION

I, John M. Ludwig, P.E., verify under penalty of perjury that I am the same John M. Ludwig, P.E. whose Statement of Qualifications appears in Part V of the Narrative portion of Consumers Energy Company Opening Evidence in this proceeding; that I have read Part III-F-5 of the Rebuttal Supplemental Evidence related to bridge design and costs that I am sponsoring; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

John M. Ludwig, P.E.

Executed on April 12, 2017

VERIFICATION

I, Robert D. Mulholland, verify under penalty of perjury that I am the same Robert D. Mulholland whose Statement of Qualifications appears in Part V of the Narrative portion of Consumers Energy Company Opening Evidence in this proceeding; that I have read the Rebuttal Supplemental Evidence relating to the development of the base year and peak period train lists in Part III-C that I am sponsoring, that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Robert D. Mulholland

Executed on April 13, 2017

Rebuttal Verified Statement of

David Maughan
Navigant Consulting, Inc.
685 Third Avenue, 14th Floor
New York, NY 10017

In the Matter of

CONSUMERS ENERGY COMPANY
v.
CSX TRANSPORTATION, INC.

April 11, 2017

My name is David Maughan, and I provided a Verified Statement as part of Consumers Energy Company's January 23, 2017 Opening Supplemental Evidence in this proceeding. My qualifications, credentials and experience were included in that Statement. I am offering this Rebuttal Verified Statement in response to claims made by Messrs. Bradford Cornell and Glenn Tobias in Statements filed as part of the March 6, 2017 Supplemental Reply Evidence of CSX Transportation, Inc.

A. Ungrounded and Inapplicable Academic Studies

1. The responses from CSXT's experts – Messrs. Tobias and Cornell – may provide some food for thought on a theoretical basis, but their opinions concerning the cost of raising equity for a firm such as the hypothetical stand-alone CERR are not grounded in real world experience. The capital markets and the financial decisions made in those markets are driven by real world situations that I have worked in for many years and am involved with every day, while their theories look backwards with the benefit of hindsight. I am familiar with some of the academic literature on the subjects raised in Dr. Cornell's Statement – I reviewed them for my original Statement for the STB, and decided not to use them. None actually pertains to a private placement versus an IPO because of the lack of data on the private placement market, as I explained in my original Statement. So what Dr. Cornell is reduced to is claiming connections between extraneous markets and making implications about the private market based upon those supposed connections. Mr. Tobias essentially imports Dr. Cornell's theory into his own Statement. It just does not work.

2. There are many forms of finance in the capital markets: from private placements to public offerings; and there are various forms of public offerings, from IPOs to secondaries (such as seasoned equity offerings) to PIPEs (private investment in public equity) to ATMs (at the market offerings) to block trades (to limit price volatility) to rights offerings (allowing existing shareholders to buy more stock at a diluted price) to reverse mergers into a public shell company. In my career I have dealt extensively with all of them, and what you learn are the following: 1) there is no academic literature that directly pertains to a new entrant company such as the SARR that is raising 100% of its needed equity in a single issuance, and tries to force it on the IPO or public markets where it doesn't belong, and 2) real companies rarely, if ever, have a free choice of doing this kind of a deal or that kind of a deal (private or public, the type of public, etc.). The circumstances of the company guide it and its bankers to a certain execution style that is the one that makes sense under the circumstances. As I explained in my original Statement, and further in this Statement, based on my decades of experience as an investment banker, a private placement is the only feasible method to finance a SARR.

3. As a result, studies that compare after-the-fact average outcomes under different financing approaches are of no value for determining what would happen in any individual situation, whether those options are available, and what premium or discount, if any, would apply if those options do happen to exist.

4. For example, I am working with a 1934 Securities Act registrant right now (i.e., a company that is already publicly-traded). Based on the articles

referenced by Dr. Cornell and Mr. Tobias,[1] one might think that a secondary offering of stock to the public would be the most direct and efficient way to raise capital, but it is not. The tradeable float of the stock is non-existent, and the expenses of an SEC 1934 Act filing of an S1 registration statement would make it prohibitive for a micro-cap stock. Therefore, the Company will do a private placement or PIPE (private investment in a public equity) instead. A study that focused on the hypothetical discount in that case compared to the discount for a secondary offering in another case would be of no value for determining the discount that would occur for a third company, with a different set of particulars at a different time.

5. Academics as well as bankers and reasonably sophisticated investors know that an IPO is priced at a level to give a nice 'pop' to the stock in the first hours and days of trading. This 'pop' represents a significant discount to the company's inherent or 'true' value, yet it is nowhere mentioned in Dr. Cornell's analysis, and he makes no adjustment for it as he purports to draw conclusions from historic data on public returns. The academics also know that for a secondary offering the stock falls 3% on average upon the filing of the S1, the rationale having to do with the asymmetry of information between management and the market.

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[1] For example, Cornell at 7. nn.19 and 20, citing Carpentier, Cecile, Jean-Francois L'Her, and Jean-Marc Suret, "The Costs of Issuing Private Versus Public Equity for Entrepreneurial Ventures," *The Oxford Handbook of Private Equity,* March 2012 ("Carpentier et al. 2012"), pp. 7- 8; Ferreira, Eurico and Leroy D. Brooks, "On Public versus Private Equity Placements: Pedagogical Illustrations," *Financial Practice and Education,* Fall/Winter 2000, p. 243; Chen, Hsuan-Chi, Na Dai, and John D. Schatzberg, "The choice of equity selling mechanisms: PIPEs versus SEOs," *Journal of Corporate Finance,* Vol. 16, 2010, p. 113.

Again, Dr. Cornell completely ignores these issues with public offerings in making his broad claims regarding investor expectations.

6. It is significant that CSXT and its experts do not disagree with my original Statement that a private placement is the most feasible, and really the only feasible, way for Consumers' SARR, the CERR, to raise its needed equity, and that the flotation cost for that raise would be about 1%. Instead, Mr. Tobias, and the academic retained by CSXT, Dr. Cornell, attempt to focus on something else: the premium return or cost of capital that the CERR supposedly would have to pay because it is not publicly traded. However, none of the sources that they claim to rely on actually endorse the notion that private investors invariably will 'insist' on a higher return in exchange for their investment, and none focus on a new entrant such as a SARR that raises 100% of its equity in one issue at the start of its life.

7. Dr. Cornell makes a lot of the weighted average cost of capital as applied to any company and the CERR. Let me be clear, in my original Statement I followed the STB's guidelines for capital structure and cost of capital that I understand have been used in all prior rate cases.

8. CSXT's comments about the impact of a private placement as opposed to an IPO on the all-in cost of equity are pure speculation. What if the IPO window is closed (as it has been for all but the most exceptional companies)? What if private investors don't care about the illiquidity of their investment and therefore don't ascribe a premium or discount to a private (see below)? What if those investors are able to overcome any asymmetry in information (also see below)? Dr. Cornell has probably never had to address these questions because

he gives no indication that he has ever had to face a de novo SARR and try to get it financed. My Statement is based on my actual experience with such private equity raises spanning several decades.

9. Mr. Tobias may still cling to the notion that the SARR could be financed in the IPO market. In my original Statement I explained in detail the realities of why this is far-fetched in the real world. I showed that the IPO market does not welcome entities with the characteristics of the CERR for market as well as for SEC reasons.

10. Indirectly and probably unintentionally, Mr. Tobias actually supports my assertions by highlighting the two railroad IPOs that were done in his 10-year survey. What he overlooks is that these IPOs were done for already existing and operating Fortress portfolio companies. Fortress is an investment company that owns private companies. I am very familiar with Fortress' railroad assets through the work I referred to in my original Statement as the Capital Markets advisor to the Melford International Terminal. In that instance the short line connection from the contemplated container port to the Canadian National Railway main line was owned by RailAmerica, Inc., Fortress' portfolio company.

11. When RailAmerica went public through its IPO, it was an established company: real operations with real rail, real rail cars, real land and rights of way, real customers and real revenue. And it had real cash earnings out of which it could pay a dividend to public investors who like dividend-paying railroad stocks. Fortress Transportation and Infrastructure Investors LLC was a different case since its rail assets were just one part of an overall transportation and infrastructure

company when Fortress took it public in an IPO. But again, it was an existing business. The SARR is not an established company with real operations, and it should not be compared to the only railroad IPOs in his survey.

12. The point is that Mr. Tobias should know that for companies to be able to execute an IPO they need to have existing operations. This is as true for Fortress' portfolio companies as it was for Mr. Tobias' former employer, Global Crossing, that went through several rounds of private financing to develop its basic infrastructure before it went public. It is also true for the SARR; as a new entrant without a prior, existing equity capital base, any knowledgeable banker would steer it to a private placement.

13. Dr. Cornell offers a set of theories that have been around as long as there are academics who can debate them inconclusively. He acknowledges the inconclusiveness in stating on p. 11 that 'the correct magnitude of this premium is subject to widely divergent opinions and much controversy'. I would add the important note that whether there would be any premium at all likewise is subject to much controversy. Again, circumstances vary from financing to financing and under different market conditions, and overall historic results cannot simply be averaged to achieve a result that will apply to any individual situation. Dr. Cornell's analysis completely ignores how the private market achieves its returns through restructuring and management change, for example, factors which the very literature that he relies on repeatedly identifies as major factors.

B. Time and Circumstances

14. There is a time and a circumstance for private capital that has different drivers from those that drive the IPO market. It is rare to have a real choice of equity raise vehicles, as I explain above. It is facile for Dr. Cornell and Mr. Tobias to theorize that the private market is populated by predators reaping discounts on the same set of economics based on an excuse of illiquidity and lack of information, but this is not accurate.

15. The illiquidity of private equity is of little concern to the limited partners in the private investment funds that would want to invest in the CERR because they are seeking to cover liabilities that are of a similar long term duration: life insurance pay-outs in the case of insurance companies, annuitants in the case of pension plans, and universities and other institutions seeking to operate far into the future. That is why the illiquidity premium that Messrs. Cornell and Tobias claim to be ubiquitous is, in fact, only theoretical at best. What really motivates investors in this private market is the duration of the long-dated assets. Liquidity or lack thereof is of little concern. In fact, if they tried to buy liquid, long-duration assets they would be forced to mark them to market, which could have undesirable consequences in a down market.

16. The private market provides an inherently better fit for entities with the characteristics of a SARR, and for just-in-time projects that still need to be constructed.

17. Dr. Cornell's comments about information asymmetry are also unfounded. There may be some private placements that make little information

available to investors compared to an SEC registrant, and one might understand a discount in such situations. But in the case of the SARR, the sophisticated private investors would expect to receive and be able to obtain every piece of information possible – well beyond what would ever be filed in an IPO registration statement. These investors also would be in a position to require and obtain more detailed information going forward, with greater transparency than exists for publicly-traded companies. Under Dr. Cornell's theory, this should mean that the private investors would pay a premium or accept a discounted return because of their greater access to information, so the SARR's cost of equity would be lower than the railroad industry average. Dr. Cornell does not acknowledge this point, and his analysis is therefore flawed.

18. The IPO window is very fickle so any prudent company evaluates both private and public markets contemporaneously to see where its optimal execution lies, and to hedge against the IPO window closing. However, it is highly unusual for a new entrant with the profile of a SARR to have a viable choice between those markets in its initial stages. Once the company is established, the exit options might include an IPO or a private placement, and it is at this point that some of the data in the articles relied on by Messrs. Cornell and Tobias[2] could be relevant. They have no bearing on the cost of an initial equity raise, however.

C. Management

19. Professor Cornell and Mr. Tobias also ignore the major role that management plays in the performance of private equity. Academic studies have

[2] See, for example, n.1, above.

difficulty in evaluating the management component of success for private investors, an element that is well understood by the private market, though the academics clearly recognize that management acumen plays a significant role in generating returns.[3] After all, why is it that LPs entrust their capital to third party managers? The reason is that they know how to spot value when an investment is made, but beyond that they understand that under private ownership they can accomplish things that are difficult for public companies with quarterly earnings to meet and disclosures to make. A former Chairman of the STB has explained how not being a public company helps BNSF to take a long-term view to enhance the operation of its railroad: 'If anything, the new structure enables us to focus more on the longer term, which is especially important in a capital-intensive business like ours where our assets are long-lived and our investment projects extend over many years'.[4]

20. The returns calculator that Dr. Cornell uses to support his discounted price/premium return theory gives no consideration to the enormous work that the private owners and their managers do over several years to augment the value of the portfolio company that the company could not do on its own, or could not do if it

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[3] See, for example, *Blackstone,* "Patient Capital, Private Opportunity: The Benefits and Challenges of Illiquid Alternatives," p. 8 (the publication is referenced by Cornell at 7. n.21, and Cornell at 3 n.2); Carey, Mark, Stephen Prowse, John Rea, et al., "The Economics of the Private Placement Market," Board of Governors of the Federal Reserve System, December 1993, p. 88 ("Finally, by placing funds with active investors (the limited partnerships) that take controlling positions in companies and monitor and sometimes change management, pension funds can participate in the increased returns generated by the turning around of poorly managed companies.") (publication is referenced by Cornell at 10, n.29).

[4] https://www.bnsf.com/employees/communications/railway/pdf/201003_ex.pdf, included as e-workpaper ECF-BNSF.pdf, at p. 5.

were publicly held with quarterly reporting requirements. These private equity firms have smart owners and often have 'operating partners' (sophisticated industry executives) who are on retainer to find opportunities and operate the target to enhance returns while under private ownership.

21. Management drives value in many ways: making shrewd investment decisions, cutting costs, changing the capital structure, faster growth or just by who they are. CSXT itself provides a rather apt example of the difference that management can make. An activist investor displaced existing management and installed Hunter Harrison, a charismatic new CEO, with a proven track record of increasing value at other railroad companies. At the announcement of his potential in joining CSXT, the stock popped 23%[5] in one day! Granted, this is a rare example of a private investor bringing about change at a public company situation, but the same thing regularly occurs in the world of private equity as private investors make savvy investments about how to augment value. That is the value creation brought by the private market that is misconstrued by academics like Dr. Cornell as a discount.

22. Of course, returns vary in individual investments, industries, times, and circumstances. Some private equity managers do better than others, just as some IPOs and other public companies do better than others. But the fact remains that public and private equity are not the same thing, and attempting to compare their returns glosses over a number of important differences.

[5] See e-workpaper EFC-CSXTPrice.pdf (chart from CapitalIQ showing trading in CSX stock over the past 18 months).

D. 100% of 100% is 100%

23. The claims by Dr. Cornell and Mr. Tobias about the supposed discounted price for investing in private equity are misplaced in another respect.

24. In a typical financing or sale of an existing company where there are existing investors, those existing investors typically do worry about the price they receive or the dilution they suffer in a new round of financing. They are the current owners and they are reasonably concerned if new investors get a superior deal that leaves the original investors worse off.

25. But in a de novo start-up, there are no existing investors. The new investors put up all the money, they acquire all the company, and all they require is a capital cost and an off-take agreement that compensates for the risk. If you are putting up 100% of the capital, how do you receive a discount? You can't, unless with the passage of time and operational experience you can sell stock or sell the whole enterprise at a gain. But at the outset there is no discount based on prior investors' valuation because there are no prior investors and no such valuation.

E. Conclusion

26. The STB should not be misled by the statements from Dr. Cornell or Mr. Tobias. There is and can be no straight comparison of the premium return required or demanded by investors for investing in a private placement instead of an IPO. Companies choose different financing vehicles for reasons that are specific to their circumstances. Even Dr. Cornell admits that the premium supposedly paid in other situations for an illiquid investment 'is subject to widely divergent opinions and much controversy'. Sophisticated private investors do not

face an informational asymmetry, and instead look to harvest the benefit of the management that they have retained. There is certainly no discount from true value when one is acquiring the whole company. And Mr. Tobias adds nothing, besides inadvertently confirming that an IPO would not be a feasible option for a SARR. A private placement is the only viable option for the SARR, and the unchallenged ~1% flotation is the right number.

VERIFICATION

I, David Maughan, verify under penalty of perjury that I have read my Rebuttal Verified Statement, that I know the contents thereof, and that the same are true and correct. Further I certify that I am qualified and authorized to file this Verified Statement.

David Maughan

Executed on April 11, 2017

SUMMARY OF SUPPLEMENTAL CERR TRAFFIC VOLUMES AND REVENUES

	Issue Coal Traffic 1/		Carload Traffic 2/		Container Traffic 3/		Total	
Year	Units	Revenue	Units	Revenue	Units	Revenue	Units	Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2015	42,072	$75,626,071	258,193	$35,292,310	458,540	$25,585,957	758,805	$136,504,338
2016	35,284	$64,908,598	233,883	$28,004,197	492,843	$25,777,371	762,010	$118,690,165
2017	47,833	$90,191,942	265,446	$33,169,513	526,646	$29,292,400	839,925	$152,653,854
2018	44,917	$87,311,787	266,099	$33,857,104	556,094	$32,082,262	867,109	$153,251,152
2019	43,700	$87,495,158	269,531	$35,239,115	589,745	$35,312,806	902,976	$158,047,079
2020	47,217	$97,373,067	273,926	$36,851,090	629,988	$39,216,208	951,131	$173,440,366
2021	46,075	$97,868,399	278,465	$38,530,824	673,742	$43,468,115	998,282	$179,867,338
2022	48,008	$104,944,335	283,181	$40,370,257	721,380	$48,419,928	1,052,569	$193,734,521
2023	43,925	$98,735,096	288,029	$42,215,774	773,277	$53,747,574	1,105,231	$194,698,444
2024	48,083	$110,971,234	293,026	$44,238,523	829,844	$59,949,425	1,170,953	$215,159,182
Totals	447,115	$915,425,686	2,709,776	$367,768,707	6,252,101	$392,852,046	9,408,991	$1,676,046,438

1/ "CERR Car Traffic Forecast-Supplemental.xlsx", sheet "CP_Forecast", cells S32:T41.

2/ "CERR Car Traffic Forecast-Supplemental.xlsx", sheet "CAR_Forecast", cells AL8426:AL8435 (units), CW8420:CW8429 (Revenue) and sheet "CP_Forecast, cells V32:Z41.

3/ "CERR Container Traffic Forecast-Rebuttal.xlsx", sheet "CONT_Forecast", cells AN40545:AN40553 (Units), CV40535:CC40544 (Revenue).

TABLE A: CERR ANNUAL COST OF CAPITAL

Year	Industry Cost of Capital	Industry Cost of Debt 1/	Industry Cost of Preferred Equity 2/	Industry Cost of Equity 3/	CERR's Cost of Debt	CERR's Cost of Preferred Equity	CERR's Cost of Equity	Debt as a Percent of Total Investment	Preferred Equity as a Percent of Total Investment	Equity as a Percent of Total Investment	Composite Cost of Capital	1 + Cost of Capital	STB Prescribed Debt as a % of Capital 4/	STB Preferred Equity as a % of Capital 4/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
2012	11.12%	3.29%	0.00%	13.40%	3.29%	0.00%	13.40%	22.56%	0.000%	77.44%	11.12%	1.1112	22.560%	0.000%
2013	11.32%	3.68%	3.87%	12.96%	3.68%	3.87%	12.96%	17.69%	0.004%	82.31%	11.32%	1.1132	17.690%	0.004%
2014	10.65%	3.58%	3.69%	12.06%	3.58%	3.69%	12.06%	16.66%	0.004%	83.34%	10.65%	1.1065	16.660%	0.004%
2015	9.61%	3.55%	3.68%	10.96%	3.60%	3.37%	10.96%	17.82%	0.004%	82.17%	9.65%	1.0965	18.16%	0.000%
2016					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		
2017					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		
2018					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		
2019					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		
2020					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		
2021					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		
2022					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		
2023					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		
2024					3.60%	3.37%	12.35%	17.82%	0.004%	82.17%	10.79%	1.1079		

1/ Cost of railroad industry debt from the STB Decisions in Ex Parte No. 558 (Sub-No. 16), *Railroad Cost of Capital - 2012* , decided August 30, 2013, Ex Parte No. 558 (Sub-No. 17), *Railroad Cost of Capital - 2013,* decided July 31, 2014 and Ex Parte No. 558 (Sub-No. 18), *Railroad Cost of Capital - 2014* , decided August 7, 2015.

2/ Cost of preferred equity from the STB Decisions Ex Parte No. 558 (Sub-No. 17), *Railroad Cost of Capital - 2013,* decided July 31, 2014 and Ex Parte No. 558 (Sub-No. 18), *Railroad Cost of Capital - 2014* , decided August 7, 2015. There was no railroad preferred equity issued in 2012.

3/ Cost of railroad common equity from the STB Decisions in Ex Parte No. 558 (Sub-No. 16), *Railroad Cost of Capital - 2012* , decided August 30, 2013, Ex Parte No. 558 (Sub-No. 17), *Railroad Cost of Capital - 2013,* decided July 31, 2014 and Ex Parte No. 558 (Sub-No. 18), *Railroad Cost of Capital - 2014* , decided August 7, 2015.

4/ Railroad average capital structure from the STB Decisions in Ex Parte No. 558 (Sub-No. 16), *Railroad Cost of Capital - 2012* , decided August 30, 2013, Ex Parte No. 558 (Sub-No. 17), *Railroad Cost of Capital - 2013,* decided July 31, 2014 and Ex Parte No. 558 (Sub-No. 18), *Railroad Cost of Capital - 2014* , decided August 7, 2015.

TABLE B: CERR INFLATION INDEXES

Period	Land 1/	Hybrid RCAF 2/	MWS Excluding Fuel 3/	Materials & Supplies 4/	Wages & Supplements 5/
(1)	(2)	(3)	(4)	(5)	(6)
3Q 2012	100.0		477.5	346.6	503.3
4Q 2012	101.9		475.6	340.7	502.4
1Q 2013	104.5		477.1	339.0	504.6
2Q 2013	109.1		471.1	334.0	498.4
3Q 2013	113.2		478.0	340.8	505.2
4Q 2013	116.7		477.6	332.4	506.8
1Q 2014	119.8		483.7	337.7	513.0
2Q 2014	125.1		489.7	348.8	517.7
3Q 2014	128.7		494.1	349.1	523.0
4Q 2014	132.4		496.9	358.9	524.2
1Q 2015	136.7	100.0	506.7	338.8	541.1
2Q 2015	141.0	93.0	509.4	336.6	544.9
3Q 2015	143.8	87.6	507.6	332.7	543.5
4Q 2015	146.2	91.1	509.6	338.9	544.6
1Q 2016	147.9	91.3	507.5	325.8	545.1
2Q 2016	149.5	88.7	506.2	325.8	543.5
3Q 2016	151.2	91.5	509.3	327.8	546.7
4Q 2016	152.9	92.9	513.2	333.0	550.0
1Q 2017	154.6	93.2	518.4	333.3	556.6
2Q 2017	156.4	94.5	522.4	337.0	560.5
3Q 2017	158.1	96.1	527.5	343.1	565.0
4Q 2017	159.9	96.8	531.3	344.4	569.5
1Q 2018	161.7	97.7	536.3	348.2	574.6
2Q 2018	163.5	98.7	541.2	351.9	579.7
3Q 2018	165.4	99.8	546.2	355.6	584.9
4Q 2018	167.2	100.9	551.2	359.4	590.1
1Q 2019	169.1	102.0	555.9	362.7	595.0
2Q 2019	171.0	103.2	560.6	366.0	600.0
3Q 2019	172.9	104.3	565.4	369.3	605.1
4Q 2019	174.9	105.5	570.2	372.7	610.1
1Q 2020	176.9	106.7	575.0	375.5	615.4
2Q 2020	178.9	107.8	579.9	378.4	620.7
3Q 2020	180.9	109.1	584.8	381.3	626.1
4Q 2020	182.9	110.3	589.8	384.2	631.5
1Q 2021	185.0	111.4	595.2	387.6	637.4
2Q 2021	187.1	112.5	600.7	390.9	643.4
3Q 2021	189.2	113.6	606.3	394.3	649.4
4Q 2021	191.3	114.7	611.9	397.7	655.5
1Q 2022	193.5	115.6	617.2	400.8	661.3
2Q 2022	195.7	116.5	622.6	404.0	667.2
3Q 2022	197.9	117.4	628.0	407.2	673.1
4Q 2022	200.1	118.3	633.5	410.4	679.1
1Q 2023	202.4	119.2	638.8	413.5	685.0
2Q 2023	204.7	120.1	644.2	416.5	690.9
3Q 2023	207.0	121.0	649.6	419.6	696.8
4Q 2023	209.3	121.9	655.1	422.7	702.9
1Q 2024	211.7	122.9	660.6	425.7	708.9
2Q 2024	214.1	123.8	666.1	428.6	715.1
3Q 2024	216.6	124.8	671.6	431.6	721.2
4Q 2024	219.0	125.7	677.2	434.6	727.5
Annual Inflation Rate 6/	5.16%		3.14%	1.93%	3.33%

1/ Used to index Road Property Account 2. Based on historic change in rural land prices as reported by the USDA and urban land prices as reported by the S&P Dow Jones and Moody's/RCA.

2/ Used to index expenses in Table K. Based on the RCAF-U and RCAF-A through 1Q2016 then IHS Economics forecast for remaining periods.

3/ Used to index Road Property Accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, 37, and 39. Based on RCR indices - East Region through 1Q2016 then IHS Economics forecast.

4/ Used to index Road Property Accounts 8, 9, and 11. Based on RCR indexes - East Region through 1Q2016 then IHS Economics forecast for remaining periods.

5/ Used to index Road Property Accounts 1 and 12. Based on RCR indexes - East Region through 1Q2016 then IHS Economics forecast for remaining periods.

6/ 4Q 2014 ÷ 4Q 2024^(1/10)-"1. The Annual Rate is used to develop asset replacement values at the end of asset lives.

TABLE C: CERR PROPERTY INVESTMENT VALUES

Construction of the CERR occurs between July 1, 2012 and January 1, 2015.
Investments are assumed to be in January 1, 2015 dollars.

Property Account	Property Component	Service Life In Years 1/	Investment In 3Q2012 Dollars 2/	Investment In 3Q2013 Dollars 3/	Investment In 3Q2014 Dollars 4/	2012 Investment Value 5/	2013 Investment Value 6/	2014 Investment Value 7/	Total Property Investment 1Q 2015 8/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Engineering	NA	$38,325,057	$38,469,738	$39,825,164	$22,995,034	$15,387,895	$0	$38,382,929
2	Land	NA	$88,240,233	$99,888,654	$113,587,644	$37,817,243	$57,079,231	$0	$94,896,474
3	Grading	69	$43,900,524	$43,946,494	$45,426,700	$0	$43,946,494	$0	$43,946,494
5	Tunnels	76	$0	$0	$0	$0	$0	$0	$0
6	Bridges & Culverts	61	$69,752,014	$69,825,053	$72,176,901	$0	$48,877,537	$21,653,070	$70,530,607
8	Ties	20	$58,071,620	$57,099,850	$58,490,486	$0	$24,471,364	$33,423,135	$57,894,499
9	Rails and OTM	34	$82,405,159	$81,026,192	$82,999,541	$0	$34,725,511	$47,428,309	$82,153,820
11	Ballast	36	$50,255,843	$49,414,863	$50,618,335	$0	$21,177,798	$28,924,763	$50,102,561
12	Labor	31	$45,430,823	$45,602,328	$47,209,061	$0	$19,543,855	$26,976,606	$46,520,461
13	Fences and Roadway Signs	47	$97,882	$97,984	$101,285	$0	$41,993	$57,877	$99,870
16	Stations and Office Buildings	40	$2,280,710	$2,283,098	$2,359,998	$0	$913,239	$1,415,999	$2,329,238
17	Roadway Buildings	37	$1,518,993	$1,520,583	$1,571,799	$0	$608,233	$943,080	$1,551,313
19	Fuel Stations	29	$0	$0	$0	$0	$0	$0	$0
20	Shops and Enginehouses	34	$2,647,607	$2,650,379	$2,739,649	$0	$1,060,152	$1,643,790	$2,703,941
26	Communications Systems	13	$11,461,808	$11,473,810	$11,860,271	$0	$0	$11,860,271	$11,860,271
27	Signals and Interlockers	29	$33,224,587	$33,259,377	$34,379,619	$0	$0	$34,379,619	$34,379,619
39	Public Improvements	44	$12,165,075	$12,177,813	$12,587,987	$0	$5,219,063	$7,193,135	$12,412,198
	Total		$539,777,936	$548,736,217	$575,934,440	$60,812,277	$273,052,366	$215,899,654	$549,764,297

1/ 1 ÷ Depreciation Rate shown in Schedule 332 of CSXT's 2014 Annual Report R-1
2/ January 1, 2015, indexed to 2012 dollars; Investment Exhibit - 1Q2015 x Inflation Index from Table B, 3Q2012 ÷ 1Q2015.
3/ January 1, 2015, indexed to 2013 dollars; Investment Exhibit - 1Q2015 x Inflation Index from Table B, 3Q2013 ÷ 1Q2015.
4/ January 1, 2015, indexed to 2014 dollars; Investment Exhibit - 1Q2015 x Inflation Index from Table B, 3Q2014 ÷ 1Q2015.
5/ Column (4) x Percent constructed in 2012.
6/ Column (5) x Percent constructed in 2013.
7/ Column (6) x Percent constructed in 2014.
8/ Sum of Columns (7) through (9).

TABLE D: INTEREST DURING CONSTRUCTION

Month of Installation (1)	Cost of Funds 1/ (2)	Timing of Account 1 Investment 2/ (3)	Timing of Account 2 Investment 2/ (4)	Timing of Accounts 3, 5 and 6 Investment 2/ (5)	Timing of Accounts 8 Through 39 Investment 2/ (6)	Total Investment by Month 3/ (7)	Interest During Construction 4/ (8)	Cost of Debt 5/ (9)	Deductible Interest During Construction 6/ (10)
Jul-12	0.88%	$3,832,506	$0	$0	$0	$3,832,506	$0	0.27%	$0
Aug-12	0.88%	$3,832,506	$0	$0	$0	$3,832,506	$33,821	0.27%	$2,335
Sep-12	0.88%	$3,832,506	$0	$0	$0	$3,832,506	$67,941	0.27%	$4,692
Oct-12	0.88%	$3,832,506	$12,605,748	$0	$0	$16,438,253	$102,361	0.27%	$7,068
Nov-12	0.88%	$3,832,506	$12,605,748	$0	$0	$16,438,253	$248,329	0.27%	$17,148
Dec-12	0.88%	$3,832,506	$12,605,748	$0	$0	$16,438,253	$395,585	0.27%	$27,317
Jan-13	0.90%	$3,846,974	$14,269,808	$0	$0	$18,116,782	$553,408	0.30%	$32,899
Feb-13	0.90%	$3,846,974	$14,269,808	$0	$0	$18,116,782	$720,975	0.30%	$42,861
Mar-13	0.90%	$3,846,974	$14,269,808	$0	$0	$18,116,782	$890,046	0.30%	$52,912
Apr-13	0.90%	$3,846,974	$14,269,808	$6,278,071	$0	$24,394,852	$1,060,634	0.30%	$63,053
May-13	0.90%	$0	$0	$6,278,071	$0	$6,278,071	$1,289,100	0.30%	$76,634
Jun-13	0.90%	$0	$0	$13,260,576	$0	$13,260,576	$1,357,016	0.30%	$80,672
Jul-13	0.90%	$0	$0	$13,260,576	$17,529,931	$30,790,507	$1,488,210	0.30%	$88,471
Aug-13	0.90%	$0	$0	$13,260,576	$17,529,931	$30,790,507	$1,777,915	0.30%	$105,694
Sep-13	0.90%	$0	$0	$13,260,576	$18,175,337	$31,435,913	$2,070,220	0.30%	$123,071
Oct-13	0.90%	$0	$0	$13,260,576	$18,175,337	$31,435,913	$2,370,941	0.30%	$140,948
Nov-13	0.90%	$0	$0	$6,982,505	$18,175,337	$25,157,842	$2,674,361	0.30%	$158,986
Dec-13	0.90%	$0	$0	$6,982,505	$18,175,337	$25,157,842	$2,924,158	0.30%	$173,836
Jan-14	0.85%	$0	$0	$7,217,690	$18,667,623	$25,885,313	$2,996,311	0.29%	$173,070
Feb-14	0.85%	$0	$0	$7,217,690	$18,667,623	$25,885,313	$3,240,846	0.29%	$187,194
Mar-14	0.85%	$0	$0	$7,217,690	$18,667,623	$25,885,313	$3,487,451	0.29%	$201,438
Apr-14	0.85%	$0	$0	$0	$18,667,623	$18,667,623	$3,736,145	0.29%	$215,803
May-14	0.85%	$0	$0	$0	$18,667,623	$18,667,623	$3,925,833	0.29%	$226,760
Jun-14	0.85%	$0	$0	$0	$34,080,920	$34,080,920	$4,117,127	0.29%	$237,809
Jul-14	0.85%	$0	$0	$0	$33,413,775	$33,413,775	$4,440,542	0.29%	$256,490
Aug-14	0.85%	$0	$0	$0	$33,413,775	$33,413,775	$4,761,047	0.29%	$275,002
Sep-14	0.85%	$0	$0	$0	$0	$0	$5,084,265	0.29%	$293,672
Oct-14	0.85%	$0	$0	$0	$0	$0	$5,127,313	0.29%	$296,158
Nov-14	0.85%	$0	$0	$0	$0	$0	$5,170,724	0.29%	$298,666
Dec-14	0.85%	$0	$0	$0	$0	$0	$5,214,504	0.29%	$301,194
Total		**$38,382,929**	**$94,896,474**	**$114,477,101**	**$302,007,793**	**$549,764,297**	**$71,327,129**		**$4,161,851**

1/ ((1 + Cost of Capital from Table A for the applicable year)^(1/12) - 1) x 100.
2/ Applicable account value from Table C for the applicable investment period.
3/ Sum of Columns (3) through (6).
4/ July 12 equals Column (2) x prior Column (7), all other periods equal Column (2) x ((Sum of Column (7) for all prior periods) + (Sum of Column (8) for all prior periods)).
5/ ((1 + Cost of Debt from Table A for the applicable year)^(1/12) - 1) x 100.
6/ July 12 equals prior Column (7) x Column (9) x Table A, Column (9) for 2012, all other periods equal Column (9) x ((Sum of Column (7) for all prior periods) + (Sum of Column (8) for all prior periods)) x Table A, Column (9) for the applicable year.

TABLE E: CERR INTEREST PAYMENTS FOR ASSETS PURCHASED WITH DEBT CAPTIAL

INTEREST SCHEDULE FOR THE CERR 2012 ROAD PROPERTY INVESTMENT FOR THE 1Q2015 START-UP		INTEREST SCHEDULE FOR THE CERR 2013 ROAD PROPERTY INVESTMENT FOR THE 1Q2015 START-UP		INTEREST SCHEDULE FOR THE CERR 2014 ROAD PROPERTY INVESTMENT FOR THE 1Q2015 START-UP	
1. Total Investment	$60,812,277 1/	1. Total Investment	$273,052,366 1/	1. Total Investment	$215,899,654 1/
2. IDC	$848,038 2/	2. IDC	$19,176,983 2/	2. IDC	$51,302,108 2/
3. Principal	$13,910,567 3/	3. Principal	$51,695,372 3/	3. Principal	$44,515,814 3/
4. Interest	3.29% 4/	4. Interest	3.68% 4/	4. Interest	3.58% 4/
5. Term (Quarters)	80 5/	5. Term (Quarters)	80 5/	5. Term (Quarters)	80 5/
6. Quarterly Coupon	$113,029 6/	6. Quarterly Coupon	$469,172 6/	6. Quarterly Coupon	$393,177 6/

Quarter (1)	Interest 7/ (2)	Quarter (3)	Interest 7/ (4)	Quarter (5)	Interest 7/ (6)
1	$113,029	1	$469,172	1	$393,177
2	$113,029	2	$469,172	2	$393,177
3	$113,029	3	$469,172	3	$393,177
4	$113,029	4	$469,172	4	$393,177
5	$113,029	5	$469,172	5	$393,177
6	$113,029	6	$469,172	6	$393,177
7	$113,029	7	$469,172	7	$393,177
8	$113,029	8	$469,172	8	$393,177
9	$113,029	9	$469,172	9	$393,177
10	$113,029	10	$469,172	10	$393,177
11	$113,029	11	$469,172	11	$393,177
12	$113,029	12	$469,172	12	$393,177
13	$113,029	13	$469,172	13	$393,177
14	$113,029	14	$469,172	14	$393,177
15	$113,029	15	$469,172	15	$393,177
16	$113,029	16	$469,172	16	$393,177
17	$113,029	17	$469,172	17	$393,177
18	$113,029	18	$469,172	18	$393,177
19	$113,029	19	$469,172	19	$393,177
20	$113,029	20	$469,172	20	$393,177
21	$113,029	21	$469,172	21	$393,177
22	$113,029	22	$469,172	22	$393,177
23	$113,029	23	$469,172	23	$393,177
24	$113,029	24	$469,172	24	$393,177
25	$113,029	25	$469,172	25	$393,177
26	$113,029	26	$469,172	26	$393,177
27	$113,029	27	$469,172	27	$393,177
28	$113,029	28	$469,172	28	$393,177
29	$113,029	29	$469,172	29	$393,177
30	$113,029	30	$469,172	30	$393,177
31	$113,029	31	$469,172	31	$393,177
32	$113,029	32	$469,172	32	$393,177
33	$113,029	33	$469,172	33	$393,177
34	$113,029	34	$469,172	34	$393,177
35	$113,029	35	$469,172	35	$393,177
36	$113,029	36	$469,172	36	$393,177
37	$113,029	37	$469,172	37	$393,177
38	$113,029	38	$469,172	38	$393,177
39	$113,029	39	$469,172	39	$393,177
40	$113,029	40	$469,172	40	$393,177
41	$113,029	41	$469,172	41	$393,177
42	$113,029	42	$469,172	42	$393,177
43	$113,029	43	$469,172	43	$393,177
44	$113,029	44	$469,172	44	$393,177
45	$113,029	45	$469,172	45	$393,177
46	$113,029	46	$469,172	46	$393,177
47	$113,029	47	$469,172	47	$393,177
48	$113,029	48	$469,172	48	$393,177
49	$113,029	49	$469,172	49	$393,177
50	$113,029	50	$469,172	50	$393,177
51	$113,029	51	$469,172	51	$393,177
52	$113,029	52	$469,172	52	$393,177
53	$113,029	53	$469,172	53	$393,177
54	$113,029	54	$469,172	54	$393,177

TABLE E: CERR INTEREST PAYMENTS FOR ASSETS PURCHASED WITH DEBT CAPTIAL

INTEREST SCHEDULE FOR THE CERR 2012 ROAD PROPERTY INVESTMENT FOR THE 1Q2015 START-UP			INTEREST SCHEDULE FOR THE CERR 2013 ROAD PROPERTY INVESTMENT FOR THE 1Q2015 START-UP			INTEREST SCHEDULE FOR THE CERR 2014 ROAD PROPERTY INVESTMENT FOR THE 1Q2015 START-UP		
1. Total Investment	$60,812,277	1/	1. Total Investment	$273,052,366	1/	1. Total Investment	$215,899,654	1/
2. IDC	$848,038	2/	2. IDC	$19,176,983	2/	2. IDC	$51,302,108	2/
3. Principal	$13,910,567	3/	3. Principal	$51,695,372	3/	3. Principal	$44,515,814	3/
4. Interest	3.29%	4/	4. Interest	3.68%	4/	4. Interest	3.58%	4/
5. Term (Quarters)	80	5/	5. Term (Quarters)	80	5/	5. Term (Quarters)	80	5/
6. Quarterly Coupon	$113,029	6/	6. Quarterly Coupon	$469,172	6/	6. Quarterly Coupon	$393,177	6/

Quarter (1)	Interest 7/ (2)	Quarter (3)	Interest 7/ (4)	Quarter (5)	Interest 7/ (6)
55	$113,029	55	$469,172	55	$393,177
56	$113,029	56	$469,172	56	$393,177
57	$113,029	57	$469,172	57	$393,177
58	$113,029	58	$469,172	58	$393,177
59	$113,029	59	$469,172	59	$393,177
60	$113,029	60	$469,172	60	$393,177
61	$113,029	61	$469,172	61	$393,177
62	$113,029	62	$469,172	62	$393,177
63	$113,029	63	$469,172	63	$393,177
64	$113,029	64	$469,172	64	$393,177
65	$113,029	65	$469,172	65	$393,177
66	$113,029	66	$469,172	66	$393,177
67	$113,029	67	$469,172	67	$393,177
68	$113,029	68	$469,172	68	$393,177
69	$113,029	69	$469,172	69	$393,177
70	$113,029	70	$469,172	70	$393,177
71	$113,029	71	$469,172	71	$393,177
72	$113,029	72	$469,172	72	$393,177
73	$113,029	73	$469,172	73	$393,177
74	$113,029	74	$469,172	74	$393,177
75	$113,029	75	$469,172	75	$393,177
76	$113,029	76	$469,172	76	$393,177
77	$113,029	77	$469,172	77	$393,177
78	$113,029	78	$469,172	78	$393,177
79	$113,029	79	$469,172	79	$393,177
80	$113,029	80	$469,172	80	$393,177

1/ From Table D, Column (7) for the applicable year investment.
2/ From Table D, Column (8) for the applicable year investment.
3/ (Total Investment + IDC) x (Proportion of Debt from Table A, Column (9)).
4/ From Table A, Column (6) for the applicable year investment.
5/ Based on Ex Parte No. 657 20-year payment period x 4.
6/ Quarterly coupon payments on Line 3 principal and Line 4 interest rates.
7/ Line 6 coupon payment.

TABLE F: CERR PRESENT VALUE OF REPLACEMENT COST

Property Account	Property Component	Service Life In Years 1/	Investment 2/	Salvage 3/	Replacement Year Asset Net Cost 4/	Replacement Cost Adjusted To Reflect An Infinite Life 5/	Present Value Of Replacement Cost Adjusted To Reflect An Infinite Life (2015 Dollars) 6/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
3	Grading	69	$442,084,123	$0	$376,602,709	$380,283,552	$348,590
5	Tunnels	76	0	0	0	0	0
6	Bridges & Culverts	61	554,213,127	0	465,708,697	0	976,148
8	Ties	20	102,172,183	0	80,701,113	107,900,048	13,502,024
9	Rails and OTM	34	189,013,410	13,352,821	138,317,282	153,544,280	4,704,972
11	Ballast	36	119,462,013	0	94,357,555	103,401,615	2,621,716
12	Labor	31	151,359,395	0	119,551,831	137,015,377	6,130,021
13	Fences and Roadway Signs	47	508,615	0	427,392	446,384	3,817
16	Stations and Office Buildings	40	9,429,796	0	7,923,915	8,521,139	154,693
17	Roadway Buildings	37	5,742,586	0	4,825,530	5,274,695	128,445
19	Fuel Stations	29	0	0	0	0	0
20	Shops and Enginehouses	34	9,332,166	0	7,841,877	8,705,169	266,748
26	Communications Systems	13	21,148,111	0	16,703,921	28,655,479	7,663,232
27	Signals and Interlockers	29	101,003,034	3,385,701	77,027,079	89,647,405	4,659,505
39	Public Improvements	44	57,799,492	0	48,569,268	51,216,756	587,451
	Total		$1,763,268,050	$16,738,521	$1,438,558,172	$1,074,611,899	$41,747,362

1/ From Table C, Column (3).

2/ (Table C, Column (10) after allocation of Engineering) x (Table B, 1.0 + Annual Inflation Index)^(Column (3)).

3/ [(Column (4) x Salvage %) - (Table C, Column (10) after allocation of Engineering x Salvage %)] x (1 - Current Federal Tax Rate) + (Table C, Column (10) after allocation of Engineering x Salvage %).

4/ Column (4) - (Present Value of the remaining tax deductions for depreciation, interest expense and the Present Value of any salvage).

5/ Column (6) + [(Column (6) / ((1 + Real Cost of Capital)^Column (3) - 1)].

6/ Column (7) / ((1 + Average Nominal Cost of Capital from Table A Column (2))^Column (3)).

TABLE G PART 1: TAX DEPRECIATION SCHEDULES

Depreciation of Start-up investment for tax purposes using
accounting lives from Modified Accelerated Cost Recovery System (MACRS) 1/

Road Property Account	Road Property Component	Asset Lives Per MACRS 2/	Total 1Q 2015 Investment	Depreciable Base
(1)	(2)	(3)	(4)	(5)
1	Engineering	5	$38,382,929	$38,382,929
2	Land	N/A	$94,896,474	$0
3	Grading	50	$43,946,494	$43,946,494
5	Tunnels	50	$0	$0
6	Bridges & Culverts	20	$70,530,607	$70,530,607
8	Ties	7	$57,894,499	$57,894,499
9	Rails and OTM	7	$82,153,820	$82,153,820
11	Ballast	7	$50,102,561	$50,102,561
12	Labor	7	$46,520,461	$46,520,461
13	Fences and Roadway Signs	20	$99,870	$99,870
16	Stations and Office Buildings	20	$2,329,238	$2,329,238
17	Roadway Buildings	20	$1,551,313	$1,551,313
19	Fuel Stations	20	$0	$0
20	Shops and Enginehouses	20	$2,703,941	$2,703,941
26	Communications Systems	7	$11,860,271	$11,860,271
27	Signals and Interlockers	7	$34,379,619	$34,379,619
39	Public Improvements	20	$12,412,198	$12,412,198
	Total		**$549,764,297**	**$454,867,823**

1/ Applicable Depreciation Method: 200 or 150 percent
Declining Balance Switching to Straight Line
Applicable Recovery Periods: 7, 20 and 50 a/ years
Applicable Convention: Mid-quarter(property placed in service in first quarter)

The Depreciation Rates are as follows for the corresponding
Recovery Period and Recovery year:

Year	5-Year	7-Year	20-Year	50-Year a/	
1	20.00%	25.00%	6.56%	2.00%	
2	20.00%	21.43%	7.00%	2.00%	
3	20.00%	15.31%	6.48%	2.00%	
4	20.00%	10.93%	6.00%	2.00%	
5	20.00%	8.75%	5.55%	2.00%	
6		8.74%	5.13%	2.00%	
7		8.75%	4.75%	2.00%	
8		1.09%	4.46%	2.00%	
9			4.46%	2.00%	
10			4.46%	2.00%	
11			4.46%	2.00%	
12			4.46%	2.00%	
13			4.46%	2.00%	
14			4.46%	2.00%	
15			4.46%	2.00%	
16			4.46%	2.00%	
17			4.46%	2.00%	
18			4.46%	2.00%	
19			4.46%	2.00%	19-50
20			4.46%		
21			0.57%		

a/ 50 year property uses the Straight Line Method for all time periods

2/ Bonus Depreciation Per the Tax Relief, Unemployment Compensation Reauthorization, and Job Creation Act of 2010, the American Taxpayer Relief Act of 2012 and the Tax Increase Prevention Act of 2014.

MARCS Lives	Bonus Depreciation - 50%
7	$141,455,616
20	$44,813,584

TABLE G PART 2: TAX DEPRECIATION SCHEDULES

	Amortization - 5 Years			Road Property Depreciation - MACRS 7 Years			Depreciation - MACRS 20 Years			Depreciation - MACRS 50 Years			Total
Year	Unamortized Investment 1/	Rate 2/	Annual Amort. 3/	Undepreciated Investment 4/	Rate 2/	Annual Amount 5/	Undepreciated Investment 6/	Rate 2/	Annual Amount 7/	Unamortized Investment 8/	Rate 2/	Annual Amount 9/	Annual Depreciation 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	$38,382,929	20.00%	$7,676,586	$141,455,616	25.00%	$35,363,904	$44,813,584	6.56%	$2,941,116	$43,946,494	2%	$878,930	$233,129,735
2	$30,706,343	20.00%	$7,676,586	$106,091,712	21.43%	$30,313,939	$41,872,468	7.00%	$3,136,951	$43,067,564	2%	$878,930	$42,006,405
3	$23,029,758	20.00%	$7,676,586	$75,777,774	15.31%	$21,656,855	$38,735,517	6.48%	$2,904,817	$42,188,634	2%	$878,930	$33,117,187
4	$15,353,172	20.00%	$7,676,586	$54,120,919	10.93%	$15,461,099	$35,830,701	6.00%	$2,687,022	$41,309,704	2%	$878,930	$26,703,637
5	$7,676,586	20.00%	$7,676,586	$38,659,820	8.75%	$12,377,366	$33,143,678	5.55%	$2,485,361	$40,430,774	2%	$878,930	$23,418,244
6				$26,282,453	8.74%	$12,363,221	$30,658,317	5.13%	$2,298,937	$39,551,844	2%	$878,930	$15,541,088
7				$13,919,233	8.75%	$12,377,366	$28,359,380	4.75%	$2,126,853	$38,672,914	2%	$878,930	$15,383,149
8				$1,541,866	1.09%	$1,541,866	$26,232,528	4.46%	$1,998,238	$37,793,985	2%	$878,930	$4,419,034
9							$24,234,290	4.46%	$1,998,238	$36,915,055	2%	$878,930	$2,877,168
10					100%		$22,236,052	4.46%	$1,998,238	$36,036,125	2%	$878,930	$2,877,168
11							$20,237,814	4.46%	$1,998,238	$35,157,195	2%	$878,930	$2,877,168
12							$18,239,577	4.46%	$1,998,686	$34,278,265	2%	$878,930	$2,877,616
13							$16,240,891	4.46%	$1,998,238	$33,399,335	2%	$878,930	$2,877,168
14							$14,242,653	4.46%	$1,998,686	$32,520,405	2%	$878,930	$2,877,616
15							$12,243,967	4.46%	$1,998,238	$31,641,475	2%	$878,930	$2,877,168
16							$10,245,730	4.46%	$1,998,686	$30,762,546	2%	$878,930	$2,877,616
17							$8,247,044	4.46%	$1,998,238	$29,883,616	2%	$878,930	$2,877,168
18							$6,248,806	4.46%	$1,998,686	$29,004,686	2%	$878,930	$2,877,616
19							$4,250,120	4.46%	$1,998,238	$28,125,756	2%	$878,930	$2,877,168
20							$2,251,883	4.46%	$1,998,686	$27,246,826	2%	$878,930	$2,877,616
21							$253,197	0.57%	$253,197	$26,367,896	2%	$878,930	$1,132,127
22										$25,488,966	2%	$878,930	$878,930
23								100%		$24,610,036	2%	$878,930	$878,930
24										$23,731,107	2%	$878,930	$878,930
25										$22,852,177	2%	$878,930	$878,930
26										$21,973,247	2%	$878,930	$878,930
27										$21,094,317	2%	$878,930	$878,930
28										$20,215,387	2%	$878,930	$878,930
29										$19,336,457	2%	$878,930	$878,930
30										$18,457,527	2%	$878,930	$878,930
31										$17,578,597	2%	$878,930	$878,930
32										$16,699,668	2%	$878,930	$878,930
33										$15,820,738	2%	$878,930	$878,930
34										$14,941,808	2%	$878,930	$878,930
35										$14,062,878	2%	$878,930	$878,930
36										$13,183,948	2%	$878,930	$878,930
37										$12,305,018	2%	$878,930	$878,930
38										$11,426,088	2%	$878,930	$878,930
39										$10,547,158	2%	$878,930	$878,930
40										$9,668,229	2%	$878,930	$878,930
41										$8,789,299	2%	$878,930	$878,930
42										$7,910,369	2%	$878,930	$878,930
43										$7,031,439	2%	$878,930	$878,930
44										$6,152,509	2%	$878,930	$878,930
45										$5,273,579	2%	$878,930	$878,930

TABLE G PART 2: TAX DEPRECIATION SCHEDULES

Road Property

	Amortization - 5 Years			Depreciation - MACRS 7 Years			Depreciation - MACRS 20 Years			Depreciation - MACRS 50 Years			Total
Year	Unamortized Investment 1/	Rate 2/	Annual Amort. 3/	Undepreciated Investment 4/	Rate 2/	Annual Amount 5/	Undepreciated Investment 6/	Rate 2/	Annual Amount 7/	Unamortized Investment 8/	Rate 2/	Annual Amount 9/	Annual Depreciation 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
46										$4,394,649	2%	$878,930	$878,930
47										$3,515,719	2%	$878,930	$878,930
48										$2,636,790	2%	$878,930	$878,930
49										$1,757,860	2%	$878,930	$878,930
50										$878,930	2%	$878,930	$878,930
											100%		

1/ From Table G Part 1, Column (5), Road Property Accounts 1 minus Table G Part 1
2/ From Table G, Footnote 1/, Page 8.
3/ Column (2), Year 1 x Column (3).
4/ From Table G Part 1, Column (5), Road Property Accounts 8, 9, 11, 12, 26 and 27 minus Table G Part 1, 7-Year Bonus Depreciation.
5/ Column (5), Year 1 x Column (6).
6/ From Table G Part 1, Column (5), Road Property Accounts 6, 13, 16, 17, 19, 20 and 39 minus Table G Part 1, 20-Year Bonus Depreciation.
7/ Column (8), Year 1 x Column (9).
8/ From Table G, Page 8, Column (5), Road Property Accounts 3 and 5.
9/ Column (11), Year 1 x Column (12).
10/ Column (4) + Column (7) + Column (10) + Column (13) plus Page 8, 7 & 20 Year Bonus Depreciation.

TABLE H: CERR AVERAGE ANNUAL INFLATION IN ASSET PRICES

Development of average annual inflation factors for all capital assets

1. 1Q 2015 Land value	$94,896,474 1/
2. 1Q 2015 Property asset value accounts 3, 5, 6, 13, 16, 17, 26, 27, 39 and 52	$179,813,552 1/
3. 1Q 2015 Road Property asset value accounts 8, 9, and 11	$190,150,881 1/
4. 1Q 2015 Road Property asset value accounts 1 and 12	$84,903,391 1/

Period	Quarter	Inflation Index For Land 2/	Inflation Index For Line 2 Property Assets 3/	Inflation Index For Line 3 Road Property Assets 4/	Inflation Index For Line 4 Road Property Assets 5/	Land Value 6/	Road Property Value 7/	1Q 2015 Inflation Index 8/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0		1.000	1.000	1.000	1.000	$94,896,474	$454,867,823	1.000
1	1Q 2015	1.032	1.020	0.944	1.032	$97,963,575	$450,502,110	0.998
2	2Q 2015	1.065	1.025	0.938	1.039	$101,046,423	$450,929,043	1.004
3	3Q 2015	1.086	1.022	0.927	1.037	$103,040,339	$447,984,640	1.002
4	4Q 2015	1.104	1.026	0.944	1.039	$104,791,711	$452,171,404	1.013
5	1Q 2016	1.117	1.021	0.908	1.040	$105,967,440	$444,551,872	1.001
6	2Q 2016	1.129	1.019	0.908	1.037	$107,156,727	$443,830,521	1.002
7	3Q 2016	1.142	1.025	0.913	1.043	$108,359,735	$446,493,504	1.009
8	4Q 2016	1.155	1.033	0.928	1.049	$109,576,625	$451,224,939	1.020
9	1Q 2017	1.168	1.043	0.929	1.062	$110,807,564	$454,348,673	1.028
10	2Q 2017	1.181	1.051	0.939	1.069	$112,052,717	$458,364,186	1.038
11	3Q 2017	1.194	1.061	0.956	1.078	$113,312,254	$464,140,678	1.050
12	4Q 2017	1.207	1.069	0.960	1.086	$114,586,346	$466,995,858	1.058
13	1Q 2018	1.221	1.079	0.970	1.096	$115,875,165	$471,629,726	1.069
14	2Q 2018	1.235	1.089	0.981	1.106	$117,178,888	$476,188,447	1.079
15	3Q 2018	1.249	1.099	0.991	1.116	$118,497,692	$480,791,491	1.090
16	4Q 2018	1.263	1.109	1.001	1.126	$119,831,755	$485,439,292	1.101
17	1Q 2019	1.277	1.119	1.011	1.135	$121,181,260	$489,678,044	1.111
18	2Q 2019	1.291	1.128	1.020	1.145	$122,546,392	$493,953,858	1.121
19	3Q 2019	1.306	1.138	1.029	1.154	$123,927,335	$498,267,057	1.132
20	4Q 2019	1.321	1.147	1.038	1.164	$125,324,279	$502,617,969	1.142
21	1Q 2020	1.336	1.157	1.046	1.174	$126,737,414	$506,732,069	1.152
22	2Q 2020	1.351	1.167	1.054	1.184	$128,166,934	$510,879,935	1.162
23	3Q 2020	1.366	1.177	1.062	1.194	$129,613,034	$515,061,846	1.173
24	4Q 2020	1.381	1.187	1.071	1.205	$131,075,912	$519,278,081	1.183
25	1Q 2021	1.397	1.198	1.080	1.216	$132,555,769	$523,967,094	1.194
26	2Q 2021	1.413	1.209	1.089	1.227	$134,052,807	$528,698,501	1.206
27	3Q 2021	1.429	1.220	1.099	1.239	$135,567,232	$533,472,686	1.217
28	4Q 2021	1.445	1.231	1.108	1.250	$137,099,252	$538,290,035	1.229
29	1Q 2022	1.461	1.242	1.117	1.262	$138,649,077	$542,828,072	1.240
30	2Q 2022	1.478	1.253	1.126	1.273	$140,216,920	$547,404,465	1.251
31	3Q 2022	1.494	1.264	1.135	1.284	$141,802,997	$552,019,538	1.262
32	4Q 2022	1.511	1.275	1.144	1.295	$143,407,526	$556,673,619	1.273
33	1Q 2023	1.528	1.286	1.152	1.307	$145,030,729	$561,168,524	1.285
34	2Q 2023	1.546	1.296	1.161	1.318	$146,672,828	$565,699,881	1.296
35	3Q 2023	1.563	1.307	1.169	1.329	$148,334,051	$570,267,987	1.307
36	4Q 2023	1.581	1.318	1.178	1.341	$150,014,627	$574,873,141	1.319
37	1Q 2024	1.599	1.329	1.186	1.352	$151,714,787	$579,386,143	1.330
38	2Q 2024	1.617	1.340	1.194	1.364	$153,434,768	$583,934,893	1.341
39	3Q 2024	1.635	1.352	1.203	1.376	$155,174,807	$588,519,677	1.353
40	4Q 2024	1.654	1.363	1.211	1.388	$156,935,144	$593,140,782	1.364

Annual Average 9/ 3.48%

1/ Table C, Page 3, Column (10).
2/ Previous Column (3) x (1 + Quarterly Inflation Rate Change from Table B).
3/ Previous Column (4) x (1 + Quarterly Inflation Rate Change from Table B).
4/ Previous Column (5) x (1 + Quarterly Inflation Rate Change from Table B).
5/ Previous Column (6) x (1 + Quarterly Inflation Rate Change from Table B).
6/ Line 1 x Column (3) for applicable quarter.
7/ (Line 2 x Column (4) for applicable quarter) + (Line 3 x Column (5) for applicable quarter) + (Line 4 x Column (6) for applicable quarter).
8/ (Column (7) + Column (8)) ÷ (Period 0; (Column (7) + Column (8))).
9/ Annual weighted inflation using the last two quarters, used to calculate real cost of capital.

TABLE I: CERR DISCOUNTED CASH FLOW

Discounted Cash Flow
Present Value of the Cash Flow Discounted at the Cost of Capital in Table A
Inflation In Asset Values From Table H

1. 1Q 2015 Road Property Investment	$549,764,297	1/	Federal Tax Rate	35.0%	
2. Interest During Construction (1Q 2015 Invest.)	$71,327,129	2/			
3. Total 1Q 2015 Investment	$621,091,426	3/	Route Mile Weighted		
4. Present Value Of Replacement Cost for the CERR	$41,747,362	4/	Average State Tax Rate	6.38%	7/
5. Equity Flotation Costs	$4,176,604	5/			
6. Total Cost Recovered From Quarterly Revenue Flow	$667,015,392	6/			

Period	Quarter	Quarterly Levelized C Carrying Charge Requirement 8/	Interest on Investment Financed With Debt 9/	Tax Depreciation 10/	Actual Federal Tax Payments 11/	Actual State Tax Payments 12/	Cash Flow 13/	Present Value Cash Flow 14/	Cumulative Present Value 15/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	1Q 2015	$15,052,921	$975,378	$58,282,434	$0	$0	$15,052,921	$14,880,618	$14,880,618
2	2Q 2015	$15,149,249	$975,378	$58,282,434	$0	$0	$15,149,249	$14,634,964	$29,515,583
3	3Q 2015	$15,123,162	$975,378	$58,282,434	$0	$0	$15,123,162	$14,277,217	$43,792,800
4	4Q 2015	$15,286,138	$975,378	$58,282,434	$0	$0	$15,286,138	$14,102,597	$57,895,396
5	1Q 2016	$15,109,284	$975,378	$10,501,601	$0	$0	$15,109,284	$13,604,576	$71,499,973
6	2Q 2016	$15,122,127	$975,378	$10,501,601	$0	$0	$15,122,127	$13,271,905	$84,771,877
7	3Q 2016	$15,228,231	$975,378	$10,501,601	$0	$0	$15,228,231	$13,027,140	$97,799,017
8	4Q 2016	$15,391,486	$975,378	$10,501,601	$0	$0	$15,391,486	$12,833,923	$110,632,940
9	1Q 2017	$15,511,002	$975,378	$8,279,297	$0	$0	$15,511,002	$12,606,600	$123,239,540
10	2Q 2017	$15,655,384	$975,378	$8,279,297	$0	$0	$15,655,384	$12,402,267	$135,641,806
11	3Q 2017	$15,848,491	$975,378	$8,279,297	$0	$0	$15,848,491	$12,237,833	$147,879,640
12	4Q 2017	$15,961,821	$975,378	$8,279,297	$0	$0	$15,961,821	$12,013,742	$159,893,381
13	1Q 2018	$16,124,372	$975,378	$6,675,909	$0	$0	$16,124,372	$11,829,269	$171,722,650
14	2Q 2018	$16,285,270	$975,378	$6,675,909	$0	$0	$16,285,270	$11,645,263	$183,367,913
15	3Q 2018	$16,447,798	$975,378	$6,675,909	$0	$0	$16,447,798	$11,464,137	$194,832,050
16	4Q 2018	$16,611,974	$975,378	$6,675,909	$0	$0	$16,611,974	$11,285,844	$206,117,894
17	1Q 2019	$16,765,346	$975,378	$5,854,561	$0	$0	$16,765,346	$11,102,086	$217,219,981
18	2Q 2019	$16,920,165	$975,378	$5,854,561	$0	$0	$16,920,165	$10,921,339	$228,141,320
19	3Q 2019	$17,076,443	$975,378	$5,854,561	$0	$0	$17,076,443	$10,743,554	$238,884,875
20	4Q 2019	$17,234,196	$975,378	$5,854,561	$0	$0	$17,234,196	$10,568,682	$249,453,557
21	1Q 2020	$17,385,894	$975,378	$3,885,272	$0	$0	$17,385,894	$10,392,166	$259,845,723
22	2Q 2020	$17,538,968	$975,378	$3,885,272	$0	$0	$17,538,968	$10,218,622	$270,064,345
23	3Q 2020	$17,693,432	$975,378	$3,885,272	$0	$0	$17,693,432	$10,048,000	$280,112,345
24	4Q 2020	$17,849,298	$975,378	$3,885,272	$0	$0	$17,849,298	$9,880,250	$289,992,595
25	1Q 2021	$18,018,606	$975,378	$3,845,787	$27,092	$5,275	$17,986,238	$9,704,348	$299,696,944
26	2Q 2021	$18,189,549	$975,378	$3,845,787	$4,380,403	$852,948	$12,956,198	$6,813,698	$306,510,642
27	3Q 2021	$18,362,143	$975,378	$3,845,787	$4,436,956	$863,960	$13,061,227	$6,695,276	$313,205,918
28	4Q 2021	$18,536,404	$975,378	$3,845,787	$4,494,056	$875,078	$13,167,270	$6,578,994	$319,784,912
29	1Q 2022	$18,703,489	$975,378	$1,104,758	$5,446,954	$1,060,626	$12,195,909	$5,939,600	$325,724,512
30	2Q 2022	$18,872,121	$975,378	$1,104,758	$5,502,210	$1,071,385	$12,298,526	$5,838,151	$331,562,663
31	3Q 2022	$19,042,314	$975,378	$1,104,758	$5,557,977	$1,082,244	$12,402,093	$5,738,475	$337,301,138
32	4Q 2022	$19,214,085	$975,378	$1,104,758	$5,614,261	$1,093,204	$12,506,621	$5,640,541	$342,941,678
33	1Q 2023	$19,382,000	$975,378	$719,292	$5,795,587	$1,128,511	$12,457,902	$5,476,523	$348,418,201
34	2Q 2023	$19,551,433	$975,378	$719,292	$5,851,105	$1,139,322	$12,561,007	$5,382,248	$353,800,449
35	3Q 2023	$19,722,401	$975,378	$719,292	$5,907,125	$1,150,230	$12,665,045	$5,289,629	$359,090,079
36	4Q 2023	$19,894,916	$975,378	$719,292	$5,963,653	$1,161,237	$12,770,025	$5,198,637	$364,288,716
37	1Q 2024	$20,065,439	$975,378	$719,292	$6,019,528	$1,172,117	$12,873,794	$5,108,384	$369,397,100
38	2Q 2024	$20,237,488	$975,378	$719,292	$6,075,903	$1,183,094	$12,978,490	$5,019,730	$374,416,830
39	3Q 2024	$20,411,076	$975,378	$719,292	$6,132,783	$1,194,170	$13,084,123	$4,932,648	$379,349,478
40	4Q 2024	$20,586,217	$975,378	$719,292	$6,190,171	$1,205,344	$13,190,702	$4,847,107	$384,196,585
	Future	$1,214,235,868	$57,530,657	$21,029,777	$372,125,430	$72,459,919	$769,650,519	$282,818,807	$667,015,392

1/ From Table C, Column (10) + Repaving and Rail Grinding Capital Costs from [].
2/ From Table D, Column (8).
3/ Line 1 + Line 2.
4/ Table F Column (8).
5/ Investment funded by common equity multiplied by 0.95%.
6/ Line 3 + Line 4 + Line 5.
7/ Michigan, Illinois, and Indiana corporate income tax rates weighted on CERR route miles.
8/ Quarterly carrying costs needed to recover the total investment over 40 quarters after consideration of the applicable interest payments, tax depreciation and tax liability. The Future value is an estimate of a perpetual income stream for the CERR and is calculated by taking the Period 40, Column (3) value and dividing it by the CERR's estimated quarterly Real Cost of Capital.
9/ Table E quaterly sum of Columns (2), (4) and (6).
10/ Table G: Part 2.
11/ Table J: Part 1.
12/ Table J: Part 2.
13/ (Column (3) - Column (6) - Column (7)).
14/ Column (8) discounted by the fourth root of the annual Cost of Capital adjusted to Midquarter dollars from Table A. Cumulative total of Column (9).

TABLE J - PART 1: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME

(Road Property)

Time Period	Taxable Income B/4 NOL's IRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2012	($58,560)	($58,560)	($58,560)	$0	($58,560)	($58,560)	$0	($58,560)	$0	$0
2013	($1,140,035)	($1,140,035)	($1,198,595)	$0	($1,198,595)	($1,198,595)	$0	($1,198,595)	$0	$0
2014	($2,963,256)	($2,963,256)	($4,161,851)	$0	($4,161,851)	($4,161,851)	$0	($4,161,851)	$0	$0
1Q 2015	($44,204,890)	($44,204,890)	($48,366,741)	$0	($48,366,741)	($48,366,741)	$0	($48,366,741)	$0	$0
2Q 2015	($44,108,563)	($44,108,563)	($92,475,304)	$0	($92,475,304)	($92,475,304)	$0	($92,475,304)	$0	$0
3Q 2015	($44,134,649)	($44,134,649)	($136,609,953)	$0	($136,609,953)	($136,609,953)	$0	($136,609,953)	$0	$0
4Q 2015	($43,971,674)	($43,971,674)	($180,581,627)	$0	($180,581,627)	($180,581,627)	$0	($180,581,627)	$0	$0
1Q 2016	$3,632,305	$0	($180,581,627)	$3,632,305	($176,949,322)	($176,949,322)	$0	($176,949,322)	$0	$0
2Q 2016	$3,645,148	$0	($176,949,322)	$3,645,148	($173,304,174)	($173,304,174)	$0	($173,304,174)	$0	$0
3Q 2016	$3,751,252	$0	($173,304,174)	$3,751,252	($169,552,922)	($169,552,922)	$0	($169,552,922)	$0	$0
4Q 2016	$3,914,507	$0	($169,552,922)	$3,914,507	($165,638,415)	($165,638,415)	$0	($165,638,415)	$0	$0
1Q 2017	$6,256,328	$0	($165,638,415)	$6,256,328	($159,382,088)	($159,382,088)	$0	($159,382,088)	$0	$0
2Q 2017	$6,400,709	$0	($159,382,088)	$6,400,709	($152,981,378)	($152,981,378)	$0	($152,981,378)	$0	$0
3Q 2017	$6,593,817	$0	($152,981,378)	$6,593,817	($146,387,562)	($146,387,562)	$0	($146,387,562)	$0	$0
4Q 2017	$6,707,147	$0	($146,387,562)	$6,707,147	($139,680,415)	($139,680,415)	$0	($139,680,415)	$0	$0
1Q 2018	$8,473,085	$0	($139,680,415)	$8,473,085	($131,207,330)	($131,207,330)	$0	($131,207,330)	$0	$0
2Q 2018	$8,633,983	$0	($131,207,330)	$8,633,983	($122,573,347)	($122,573,347)	$0	($122,573,347)	$0	$0
3Q 2018	$8,796,511	$0	($122,573,347)	$8,796,511	($113,776,836)	($113,776,836)	$0	($113,776,836)	$0	$0
4Q 2018	$8,960,687	$0	($113,776,836)	$8,960,687	($104,816,149)	($104,816,149)	$0	($104,816,149)	$0	$0
1Q 2019	$9,935,408	$0	($104,816,149)	$9,935,408	($94,880,742)	($94,880,742)	$0	($94,880,742)	$0	$0
2Q 2019	$10,090,226	$0	($94,880,742)	$10,090,226	($84,790,515)	($84,790,515)	$0	($84,790,515)	$0	$0
3Q 2019	$10,246,505	$0	($84,790,515)	$10,246,505	($74,544,011)	($74,544,011)	$0	($74,544,011)	$0	$0
4Q 2019	$10,404,258	$0	($74,544,011)	$10,404,258	($64,139,753)	($64,139,753)	$0	($64,139,753)	$0	$0
1Q 2020	$12,525,244	$0	($64,139,753)	$12,525,244	($51,614,509)	($51,614,509)	$0	($51,614,509)	$0	$0
2Q 2020	$12,678,319	$0	($51,614,509)	$12,678,319	($38,936,190)	($38,936,190)	$0	($38,936,190)	$0	$0
3Q 2020	$12,832,782	$0	($38,936,190)	$12,832,782	($26,103,408)	($26,103,408)	$0	($26,103,408)	$0	$0
4Q 2020	$12,988,648	$0	($26,103,408)	$12,988,648	($13,114,759)	($13,114,759)	$0	($13,114,759)	$0	$0
1Q 2021	$13,192,166	$0	($13,114,759)	$13,114,759	$0	$0	$0	$0	$77,406	$27,092
2Q 2021	$12,515,436	$0	$0	$0	$0	$0	$0	$0	$12,515,436	$4,380,403
3Q 2021	$12,677,018	$0	$0	$0	$0	$0	$0	$0	$12,677,018	$4,436,956
4Q 2021	$12,840,161	$0	$0	$0	$0	$0	$0	$0	$12,840,161	$4,494,056
1Q 2022	$15,562,727	$0	$0	$0	$0	$0	$0	$0	$15,562,727	$5,446,954
2Q 2022	$15,720,599	$0	$0	$0	$0	$0	$0	$0	$15,720,599	$5,502,210
3Q 2022	$15,879,934	$0	$0	$0	$0	$0	$0	$0	$15,879,934	$5,557,977
4Q 2022	$16,040,745	$0	$0	$0	$0	$0	$0	$0	$16,040,745	$5,614,261
1Q 2023	$16,558,819	$0	$0	$0	$0	$0	$0	$0	$16,558,819	$5,795,587
2Q 2023	$16,717,442	$0	$0	$0	$0	$0	$0	$0	$16,717,442	$5,851,105
3Q 2023	$16,877,501	$0	$0	$0	$0	$0	$0	$0	$16,877,501	$5,907,125
4Q 2023	$17,039,009	$0	$0	$0	$0	$0	$0	$0	$17,039,009	$5,963,653
1Q 2024	$17,198,652	$0	$0	$0	$0	$0	$0	$0	$17,198,652	$6,019,528
2Q 2024	$17,359,724	$0	$0	$0	$0	$0	$0	$0	$17,359,724	$6,075,903
3Q 2024	$17,522,236	$0	$0	$0	$0	$0	$0	$0	$17,522,236	$6,132,783

TABLE J - PART 1: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME

(Road Property)

Time Period	Taxable Income B/4 NOL's IRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
4Q 2024	$17,686,203	$0	$0	$0	$0	$0	$0	$0	$17,686,203	$6,190,171
Future	$1,063,215,515	$0	$0	$0	$0	$0	$0	$0	$1,063,215,515	$372,125,430

1/ Table I Column (3) - Table E Columns (2),(4) & (6) - Table G, Column (14) / 4 - Table J - Part 2, Column (11). Values for 2012 from Table D, Sum of Column (10).
2/ Column (2) if less than zero, otherwise zero.
3/ Cumulative total of Column (2).
4/ If Column (2) is greater than zero, and (Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4).
5/ Column (4) + Column (5) + Column (8).
6/ Previous period Column (9) + current period Column (3) - current period Column (5).
7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.
8/ Column (7) + Column (8).
9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero.
10/ Column (10) times applicable Federal Statutory Tax Rate.

TABLE J - PART 2: COMPUTATION OF STATE TAX LIABILITY - TAXABLE INCOME

(Road Property)

Time Period	Taxable Income B/4 NOL's IRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2012	($58,560)	($58,560)	($58,560)	$0	($58,560)	($58,560)	$0	($58,560)	$0	$0
2013	($1,140,035)	($1,140,035)	($1,198,595)	$0	($1,198,595)	($1,198,595)	$0	($1,198,595)	$0	$0
2014	($2,963,256)	($2,963,256)	($4,161,851)	$0	($4,161,851)	($4,161,851)	$0	($4,161,851)	$0	$0
1Q 2015	($44,204,890)	($44,204,890)	($48,366,741)	$0	($48,366,741)	($48,366,741)	$0	($48,366,741)	$0	$0
2Q 2015	($44,108,563)	($44,108,563)	($92,475,304)	$0	($92,475,304)	($92,475,304)	$0	($92,475,304)	$0	$0
3Q 2015	($44,134,649)	($44,134,649)	($136,609,953)	$0	($136,609,953)	($136,609,953)	$0	($136,609,953)	$0	$0
4Q 2015	($43,971,674)	($43,971,674)	($180,581,627)	$0	($180,581,627)	($180,581,627)	$0	($180,581,627)	$0	$0
1Q 2016	$3,632,305	$0	($180,581,627)	$3,632,305	($176,949,322)	($176,949,322)	$0	($176,949,322)	$0	$0
2Q 2016	$3,645,148	$0	($176,949,322)	$3,645,148	($173,304,174)	($173,304,174)	$0	($173,304,174)	$0	$0
3Q 2016	$3,751,252	$0	($173,304,174)	$3,751,252	($169,552,922)	($169,552,922)	$0	($169,552,922)	$0	$0
4Q 2016	$3,914,507	$0	($169,552,922)	$3,914,507	($165,638,415)	($165,638,415)	$0	($165,638,415)	$0	$0
1Q 2017	$6,256,328	$0	($165,638,415)	$6,256,328	($159,382,088)	($159,382,088)	$0	($159,382,088)	$0	$0
2Q 2017	$6,400,709	$0	($159,382,088)	$6,400,709	($152,981,378)	($152,981,378)	$0	($152,981,378)	$0	$0
3Q 2017	$6,593,817	$0	($152,981,378)	$6,593,817	($146,387,562)	($146,387,562)	$0	($146,387,562)	$0	$0
4Q 2017	$6,707,147	$0	($146,387,562)	$6,707,147	($139,680,415)	($139,680,415)	$0	($139,680,415)	$0	$0
1Q 2018	$8,473,085	$0	($139,680,415)	$8,473,085	($131,207,330)	($131,207,330)	$0	($131,207,330)	$0	$0
2Q 2018	$8,633,983	$0	($131,207,330)	$8,633,983	($122,573,347)	($122,573,347)	$0	($122,573,347)	$0	$0
3Q 2018	$8,796,511	$0	($122,573,347)	$8,796,511	($113,776,836)	($113,776,836)	$0	($113,776,836)	$0	$0
4Q 2018	$8,960,687	$0	($113,776,836)	$8,960,687	($104,816,149)	($104,816,149)	$0	($104,816,149)	$0	$0
1Q 2019	$9,935,408	$0	($104,816,149)	$9,935,408	($94,880,742)	($94,880,742)	$0	($94,880,742)	$0	$0
2Q 2019	$10,090,226	$0	($94,880,742)	$10,090,226	($84,790,515)	($84,790,515)	$0	($84,790,515)	$0	$0
3Q 2019	$10,246,505	$0	($84,790,515)	$10,246,505	($74,544,011)	($74,544,011)	$0	($74,544,011)	$0	$0
4Q 2019	$10,404,258	$0	($74,544,011)	$10,404,258	($64,139,753)	($64,139,753)	$0	($64,139,753)	$0	$0
1Q 2020	$12,525,244	$0	($64,139,753)	$12,525,244	($51,614,509)	($51,614,509)	$0	($51,614,509)	$0	$0
2Q 2020	$12,678,319	$0	($51,614,509)	$12,678,319	($38,936,190)	($38,936,190)	$0	($38,936,190)	$0	$0
3Q 2020	$12,832,782	$0	($38,936,190)	$12,832,782	($26,103,408)	($26,103,408)	$0	($26,103,408)	$0	$0
4Q 2020	$12,988,648	$0	($26,103,408)	$12,988,648	($13,114,759)	($13,114,759)	$0	($13,114,759)	$0	$0
1Q 2021	$13,197,441	$0	($13,114,759)	$13,114,759	$0	$0	$0	$0	$82,681	$5,275
2Q 2021	$13,368,384	$0	$0	$0	$0	$0	$0	$0	$13,368,384	$852,948
3Q 2021	$13,540,978	$0	$0	$0	$0	$0	$0	$0	$13,540,978	$863,960
4Q 2021	$13,715,240	$0	$0	$0	$0	$0	$0	$0	$13,715,240	$875,078
1Q 2022	$16,623,353	$0	$0	$0	$0	$0	$0	$0	$16,623,353	$1,060,626
2Q 2022	$16,791,985	$0	$0	$0	$0	$0	$0	$0	$16,791,985	$1,071,385
3Q 2022	$16,962,178	$0	$0	$0	$0	$0	$0	$0	$16,962,178	$1,082,244
4Q 2022	$17,133,949	$0	$0	$0	$0	$0	$0	$0	$17,133,949	$1,093,204
1Q 2023	$17,687,330	$0	$0	$0	$0	$0	$0	$0	$17,687,330	$1,128,511
2Q 2023	$17,856,764	$0	$0	$0	$0	$0	$0	$0	$17,856,764	$1,139,322
3Q 2023	$18,027,731	$0	$0	$0	$0	$0	$0	$0	$18,027,731	$1,150,230
4Q 2023	$18,200,246	$0	$0	$0	$0	$0	$0	$0	$18,200,246	$1,161,237
1Q 2024	$18,370,769	$0	$0	$0	$0	$0	$0	$0	$18,370,769	$1,172,117
2Q 2024	$18,542,818	$0	$0	$0	$0	$0	$0	$0	$18,542,818	$1,183,094
3Q 2024	$18,716,406	$0	$0	$0	$0	$0	$0	$0	$18,716,406	$1,194,170

TABLE J - PART 2: COMPUTATION OF STATE TAX LIABILITY - TAXABLE INCOME

(Road Property)

Time Period	Taxable Income B/4 NOL's IRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
4Q 2024	$18,891,548	$0	$0	$0	$0	$0	$0	$0	$18,891,548	$1,205,344
Future	$1,135,675,434	$0	$0	$0	$0	$0	$0	$0	$1,135,675,434	$72,459,919

1/ Table I Column (3) - Table E Columns (2),(4) & (6) - Table G, Column (14) ÷ 4 - Table J - Part 2, Column (11). Values for 2012 from Table D, Sum of Column (10).
2/ Column (2) if less than zero, otherwise zero.
3/ Cumulative total of Column (2).
4/ If Column (2) is greater than zero, and (Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4).
5/ Column (4) + Column (5) + Column (8).
6/ Previous period Column (9) + current period Column (3) - current period Column (5).
7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.
8/ Column (7) + Column (8).
9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero.
10/ Column (10) times applicable route mile weighted State Statutory Tax Rates.

TABLE K - PART 1: CERR OPERATING EXPENSES

Item (1)	2015 (2)	2016 (3)	2017 (4)	2018 (5)	2019 (6)	2020 (7)	2021 (8)	2022 (9)	2023 (10)	2024 (11)
1. Train & Engine Personnel	$6,418,548	$5,729,546	$6,978,117	$6,838,326	$6,847,818	$7,204,619	$7,250,551	$7,515,343	$7,378,273	$7,814,325
2. Locomotive Lease Expense	$1,440,235	$1,285,633	$1,565,795	$1,534,428	$1,536,558	$1,616,619	$1,626,925	$1,686,341	$1,655,584	$1,753,429
3. Locomotive Maintenance Expense	$1,933,500	$1,725,947	$2,102,062	$2,059,952	$2,062,812	$2,170,293	$2,184,129	$2,263,894	$2,222,604	$2,353,958
4. Locomotive Operating Expense	$4,195,042	$3,744,723	$4,560,765	$4,469,401	$4,475,605	$4,708,803	$4,738,823	$4,911,886	$4,822,300	$5,107,295
5. Railcar Lease Expense	$4,953,013	$4,421,329	$5,384,816	$5,276,943	$5,284,269	$5,559,602	$5,595,046	$5,799,378	$5,693,605	$6,030,094
6. Material & Supply Operating	$620,778	$620,778	$620,778	$620,778	$620,778	$620,778	$620,778	$620,778	$620,778	$620,778
7. Ad Valorem Tax	$1,961,180	$1,961,180	$1,961,180	$1,961,180	$1,961,180	$1,961,180	$1,961,180	$1,961,180	$1,961,180	$1,961,180
8. Operating Managers	$5,067,703	$5,067,703	$5,067,703	$5,067,703	$5,067,703	$5,067,703	$5,067,703	$5,067,703	$5,067,703	$5,067,703
9. General & Administration	$7,016,537	$7,142,577	$7,142,577	$7,142,577	$7,142,577	$7,142,577	$7,142,577	$7,142,577	$7,142,577	$7,142,577
10. Loss and Damage	$108,623	$96,962	$118,092	$115,727	$115,887	$121,926	$122,703	$127,184	$124,864	$132,244
11. Trackage Rights	$1,731,726	$1,545,833	$1,882,698	$1,844,982	$1,847,543	$1,943,808	$1,956,201	$2,027,642	$1,990,660	$2,108,307
12. Intermodal Lift Costs	$5,933,928	$5,296,948	$6,451,248	$6,322,012	$6,330,788	$6,660,649	$6,703,112	$6,947,912	$6,821,191	$7,224,320
13. Insurance 3.75%	$1,881,701	$1,778,900	$1,973,754	$1,951,938	$1,953,420	$2,009,103	$2,016,271	$2,057,595	$2,036,203	$2,104,254
14. Maintenance of Way	$8,803,297	$8,803,297	$8,803,297	$8,803,297	$8,803,297	$8,803,297	$8,803,297	$8,803,297	$8,803,297	$8,803,297
15. Total Operating Expenses	$52,065,811	$49,221,358	$54,612,883	$54,009,244	$54,050,234	$55,590,957	$55,789,296	$56,932,710	$56,340,820	$58,223,762
16. Expense Per Quarter	$13,016,453	$12,305,339	$13,653,221	$13,502,311	$13,512,559	$13,897,739	$13,947,324	$14,233,178	$14,085,205	$14,555,940
17. Net-Ton Miles	1,838,385,919	1,641,043,601	1,998,656,335	1,958,617,770	1,961,336,594	2,063,530,703	2,076,686,296	2,152,527,438	2,113,268,141	2,238,161,195

TABLE K - PART 2: CERR OPERATING EXPENSES INDEXED

Period	Quarter	Hybrid Index 1/	Operating Expense Indexed For Inflation 2/
(1)	(2)	(3)	(4)
1	1Q 2015	100.000	$13,646,586
2	2Q 2015	93.014	$12,737,265
3	3Q 2015	87.621	$12,035,265
4	4Q 2015	91.095	$12,487,511
5	1Q 2016	91.309	$11,235,822
6	2Q 2016	88.728	$10,918,288
7	3Q 2016	91.452	$11,253,479
8	4Q 2016	92.897	$11,431,284
9	1Q 2017	93.157	$12,718,938
10	2Q 2017	94.499	$12,902,091
11	3Q 2017	96.129	$13,124,652
12	4Q 2017	96.773	$13,212,587
13	1Q 2018	97.668	$13,187,414
14	2Q 2018	98.734	$13,331,387
15	3Q 2018	99.812	$13,476,932
16	4Q 2018	100.902	$13,624,066
17	1Q 2019	102.033	$13,787,221
18	2Q 2019	103.161	$13,939,744
19	3Q 2019	104.303	$14,093,955
20	4Q 2019	105.456	$14,249,871
21	1Q 2020	106.655	$14,822,614
22	2Q 2020	107.847	$14,988,357
23	3Q 2020	109.053	$15,155,954
24	4Q 2020	110.273	$15,325,425
25	1Q 2021	111.375	$15,533,798
26	2Q 2021	112.463	$15,685,627
27	3Q 2021	113.563	$15,838,939
28	4Q 2021	114.673	$15,993,751
29	1Q 2022	115.578	$16,450,448
30	2Q 2022	116.463	$16,576,343
31	3Q 2022	117.354	$16,703,200
32	4Q 2022	118.252	$16,831,029
33	1Q 2023	119.169	$16,785,158
34	2Q 2023	120.065	$16,911,368
35	3Q 2023	120.968	$17,038,527
36	4Q 2023	121.877	$17,166,642
37	1Q 2024	122.850	$17,882,015
38	2Q 2024	123.806	$18,021,087
39	3Q 2024	124.769	$18,161,241
40	4Q 2024	125.739	$18,302,486

1/ 1Q15 equals 100.0, all other quarters equal Quarterly Inflation Indexes for the Hybrid Index from Table B.

2/ Quarterly expense from Table K, Page 18, for the applicable time period x Column (3) ÷ 1Q15. Start-up costs have been distributed over the first 12 months in periods 1 - 4.

TABLE L: CERR STAND-ALONE COSTS AND REVENUES

Revenue Requirements to Cover Total Stand-Alone Costs

Period	Quarter	Quarterly Capital Requirement Road Property	Quarterly Operating Expense	Annual Stand-Alone Requirement	Annual Stand-Alone Revenues	Overpayments Or Shortfalls In Revenues	PV Difference	Cumulative PV Difference
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	1Q 2015	$15,052,921	$13,646,586					
2	2Q 2015	$15,149,249	$12,737,265					
3	3Q 2015	$15,123,162	$12,035,265					
4	4Q 2015	$15,286,138	$12,487,511	$111,518,098	$136,504,338	$24,986,240	$23,861,715	$23,861,715
5	1Q 2016	$15,109,284	$11,235,822					
6	2Q 2016	$15,122,127	$10,918,288					
7	3Q 2016	$15,228,231	$11,253,479					
8	4Q 2016	$15,391,486	$11,431,284	$105,690,001	$118,690,165	$13,000,164	$11,148,702	$35,010,417
9	1Q 2017	$15,511,002	$12,718,938					
10	2Q 2017	$15,655,384	$12,902,091					
11	3Q 2017	$15,848,491	$13,124,652					
12	4Q 2017	$15,961,821	$13,212,587	$114,934,967	$152,653,854	$37,718,887	$29,197,881	$64,208,297
13	1Q 2018	$16,124,372	$13,187,414					
14	2Q 2018	$16,285,270	$13,331,387					
15	3Q 2018	$16,447,798	$13,476,932					
16	4Q 2018	$16,611,974	$13,624,066	$119,089,212	$153,251,152	$34,161,940	$23,869,975	$88,078,272
17	1Q 2019	$16,765,346	$13,787,221					
18	2Q 2019	$16,920,165	$13,939,744					
19	3Q 2019	$17,076,443	$14,093,955					
20	4Q 2019	$17,234,196	$14,249,871	$124,066,942	$158,047,079	$33,980,137	$21,431,449	$109,509,722
21	1Q 2020	$17,385,894	$14,822,614					
22	2Q 2020	$17,538,968	$14,988,357					
23	3Q 2020	$17,693,432	$15,155,954					
24	4Q 2020	$17,849,298	$15,325,425	$130,759,942	$173,440,366	$42,680,423	$24,298,089	$133,807,811
25	1Q 2021	$18,018,606	$15,533,798					
26	2Q 2021	$18,189,549	$15,685,627					
27	3Q 2021	$18,362,143	$15,838,939					
28	4Q 2021	$18,536,404	$15,993,751	$136,158,816	$179,867,338	$43,708,522	$22,460,866	$156,268,677
29	1Q 2022	$18,703,489	$16,450,448					
30	2Q 2022	$18,872,121	$16,576,343					
31	3Q 2022	$19,042,314	$16,703,200					
32	4Q 2022	$19,214,085	$16,831,029	$142,393,030	$193,734,521	$51,341,491	$23,814,740	$180,083,417
33	1Q 2023	$19,382,000	$16,785,158					
34	2Q 2023	$19,551,433	$16,911,368					
35	3Q 2023	$19,722,401	$17,038,527					
36	4Q 2023	$19,894,916	$17,166,642	$146,452,444	$194,698,444	$48,246,000	$20,200,199	$200,283,616
37	1Q 2024	$20,065,439	$17,882,015					
38	2Q 2024	$20,237,488	$18,021,087					
39	3Q 2024	$20,411,076	$18,161,241					
40	4Q 2024	$20,586,217	$18,302,486	$153,667,049	$215,159,182	$61,492,133	$23,239,720	$223,523,336

CERR MMM Revenue to Variable Cost Ratios - 2015 to 2024

	Year	MMM Revenue to Variable Cost Ratios
	(1)	(2)
1.	2015	363.8%
2.	2016	429.3%
3.	2017	315.1%
4.	2018	330.6%
5.	2019	332.7%
6.	2020	306.6%
7.	2021	303.2%
8.	2022	283.8%
9.	2023	286.2%
10.	2024	255.4%

Source: e-workpaper "CERR MMM_Rebuttal_Supplemental.xlsm," worksheet "Exhibit III-H-2," cells F10 to F19.