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SERVICE DATE – JUNE 30, 2016

SURFACE TRANSPORTATION BOARD

DECISION

Docket No. NOR 42130

SUNBELT CHLOR ALKALI PARTNERSHIP

v.

NORFOLK SOUTHERN RAILWAY COMPANY

Digest:<sup>1</sup> On reconsideration, the Board modifies its prior decision and finds that the challenged rates have not been demonstrated to be unreasonably high.

Decided: June 29, 2016

In this decision, the Board addresses the parties' petitions for reconsideration<sup>2</sup> of the Board's decision served on June 20, 2014 (Decision) (Commissioner Begeman dissenting).

BACKGROUND

On July 26, 2011, Sunbelt Chlor Alkali Partnership (Sunbelt), filed a complaint challenging the reasonableness of the rates charged by defendants Norfolk Southern Railway Company (NS) and Union Pacific Railroad Company (UP) for the transportation of chlorine from McIntosh, Ala., to LaPorte, Tex. On May 4, 2012, Sunbelt filed an amended complaint, having entered into a voluntary settlement leading to dismissal of UP as a defendant, but continuing to challenge the reasonableness of NS's portion of the rate for the transportation of chlorine from McIntosh to New Orleans, La. (where traffic is interchanged with UP). Sunbelt requested that the Board prescribe reasonable rates under the agency's stand-alone cost (SAC) test and order reparations for past overcharges. In presenting its case under the SAC test, Sunbelt created the hypothetical Sunbelt Stand-Alone Railroad (SBRR), a 578-mile system. The

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<sup>1</sup> The digest constitutes no part of the decision of the Board but has been prepared for the convenience of the reader. It may not be cited to or relied upon as precedent. Policy Statement on Plain Language Digests in Decisions, EP 696 (STB served Sept. 2, 2010).

<sup>2</sup> The parties designated certain information in this decision as confidential or highly confidential. While we attempt to avoid references to confidential or highly confidential information in Board decisions, the Board reserves the right to rely upon and disclose such information in decisions when necessary. In this case, we determined that we could not present our findings with respect to issues in this case without disclosing certain information.

parties agreed that NS had market dominance over the traffic involved. See 49 U.S.C. § 10701(d)(1).

In the Decision, the Board found that Sunbelt had not demonstrated that the challenged rates would be unreasonable under the SAC test. Specifically, although the Board's analysis found that the SBRR would earn approximately \$4.6 million from the traffic group, just barely more than the SBRR would require to serve the same traffic group, such an over-recovery would not occur until 2021, the very end of the analysis period. Decision, slip op. at 203. After considering the circumstances of this case, the Board declined to prescribe rates for Sunbelt's future traffic.

On July 30, 2014, Sunbelt and NS each filed a petition for reconsideration of the Decision, and the parties jointly filed a petition for technical corrections. On September 9, 2014, Sunbelt and NS each filed a reply to one another's petition for reconsideration.

#### TECHNICAL CORRECTIONS

The parties agree on the appropriate correction for each error identified in their joint petition for technical corrections. We will apply each technical correction. In Appendix A, each technical correction is described, and the Appendix A tables show the effect of the technical corrections in isolation. After making the technical corrections, the Board's analysis shows that the SBRR would earn approximately \$66 million more from the traffic group than the SBRR would require to serve that same traffic group, indicating that the rate is unreasonable. However, the effects of some of the agreed-to technical corrections are further modified by decisions made on issues raised in the petitions for reconsideration. The tables in Appendix B contain the cumulative effects of the changes made as a result of both the technical corrections and granted reconsideration issues.

#### DISCUSSION AND CONCLUSIONS

A party may seek reconsideration of a Board decision by submitting a timely petition that (1) presents new evidence or substantially changed circumstances that would materially affect the case, or (2) demonstrates material error in the prior decision. 49 U.S.C. § 1322(c);<sup>3</sup> 49 C.F.R. § 1115.3. The Board generally does not consider new issues raised for the first time on reconsideration where those issues could have and should have been presented in the earlier stages of the proceeding. Tex. Mun. Power Agency v. Burlington N. & Santa Fe Ry., 7 S.T.B. 803, 804 (2004).

As shown in Appendix B, after resolution of all of the issues raised on reconsideration, the Board's analysis shows that the SBRR would earn approximately \$20 million less from the

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<sup>3</sup> The Surface Transportation Board Reauthorization Act of 2015, Public Law No. 114-110, recodified certain provisions of title 49, United States Code, redesignating 49 U.S.C. § 722 as § 1322.

traffic group than the SBRR would require to serve the same traffic group. Accordingly, the Board finds that Sunbelt is not entitled to rate relief in this case.

### **Sunbelt's Petition for Reconsideration**

#### Operating Plan

In the Decision, the Board adopted the operating plan proposed by NS, finding among other things that Sunbelt's operating plan failed to provide sufficient blocking and classification services because of an inadequate yard at Birmingham. The Board determined, that "under Sunbelt's approach, the SBRR cannot actually perform the classification and blocking that Sunbelt claims the SBRR will perform." Decision, slip op. at 14. The Board reached this conclusion based upon Sunbelt's decision not to build a hump yard at Birmingham, a facility necessary to serve the selected traffic group.<sup>4</sup> The Board now finds that it did not err in reaching that conclusion.

Adoption of NS operating plan. In its petition for reconsideration, Sunbelt asserts that the Board erred by adopting NS's operating plan. (Sunbelt Pet. 4-5.) Sunbelt claims that, based on Board precedent, the Board should have either: 1) corrected the flaw it identified in Sunbelt's operating plan, or 2) solicited supplemental evidence that would have allowed the Board to accept Sunbelt's plan. (Id.) In response, NS argues that the Board's decision was fully consistent with the record and Board precedent. (NS Reply 3-8, Sept. 9, 2014.) NS contends that "Sunbelt made a conscious tactical decision to retain its flat switching yard at Birmingham in the face of NS's showing that real world operating practice is to provide hump facilities at high-volume locations." (Id. at 6.)

Only one party's operating plan was feasible. Decision, slip op. at 19. Even with its errors, NS's operating plan worked—it included the facilities and operations needed to serve Sunbelt's selected traffic. Sunbelt's operating plan, by contrast, did not work, as Sunbelt did not provide an adequate facility for blocking and classification of carload traffic at the Birmingham yard, making its operating plan infeasible. Id. at 13-17, 19. Specifically, the Board explained that it could not accept Sunbelt's operating plan because Sunbelt failed "to prove that the SBRR can block and classify the necessary number of cars (based on Sunbelt's selected traffic group) at

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<sup>4</sup> A hump yard is a large railcar classification yard that contains a "hump track," which is elevated and connected to multiple other classification tracks where railcars are sorted. A yard locomotive pushes cars up the front side of the hump and to the top, where the car is released and gravity rolls the car down the back side of the hump. The car is "classified" (sorted) by using a system of power switches that direct the car onto the appropriate classification track with other cars headed to the same destination further along the network. On the other hand, a flat switching yard consists of tracks laid out on flat ground, without an elevated track or power switches. In a flat switching yard, cars are classified by crews and locomotives that move cars between parallel tracks that are connected by "ladder" tracks at one or both ends. Id. For certain high volumes of cars, hump yards are more efficient. Id. at 15.

the Birmingham yard using its flat yard configuration and size. The vast majority of the traffic group's cars move through the Birmingham yard. Without an adequate facility to perform the needed operations at this yard, the entire system would become inoperable." Id. at 19.

Sunbelt claims that, rather than rejecting its operating plan outright, the Board could have taken other options. First, Sunbelt argues that the Board could have substituted NS's hump yard into Sunbelt's operating plan and then accepted that Board-modified Sunbelt operating plan. (Sunbelt Pet. 9-11.) Sunbelt cites several cases in which it claims the Board considered differing yard or track configurations without considering the validity of an operating plan as a whole. (Id. at 9 n.7.) Although Sunbelt is correct, none of these cases involved the consideration of, or substitution of, a yard that functions fundamentally differently than the yard in the accepted operating plan or a yard that the Board identified as a keystone to the entire system's functionality. Decision, slip op. at 19.

For example, in Texas Municipal Power Agency v. BNSF Railway, 6 S.T.B. 573, 648-51 (2003), the Board considered the configuration of five yards separately from the operating plan. But the yards under consideration in Texas Municipal Power Agency involved more limited functions than the SBRR's Birmingham yard, such as serving as crew-change points, interchange points, fueling locations, and inspection yards. Although necessary to the functioning of the Texas Municipal Power Agency SARR, these smaller yards did not play the central role of blocking and classifying cars that the Birmingham yard would have for the SBRR. For the SBRR, the choice of flat yard versus hump yard would affect the flow of large volumes of traffic into and out of the yard, as the yard handled at least 92%, and likely more,<sup>5</sup> of all the traffic on the SBRR.<sup>6</sup>

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<sup>5</sup> See NS Reply WP "SBRR Density Train Counts NS Reply.xls", Jan. 7, 2013.

<sup>6</sup> Likewise, the other decisions cited by Sunbelt can also be distinguished. In McCarty Farms, Inc. v. Burlington Northern, Inc., 2 S.T.B. 460, 476-78, 493-94 (1997), the Board accepted the railroad operating plan while also accepting adjusted complainant yard track evidence for regional and local yards. The Board reasoned that the railroad's yard evidence was "undocumented and unsupported," and failed to show fundamental characteristics, such as how many cars the yards would serve per day. Id. at 493-94. Notably, the Board did not identify a significant difference in yard type between the parties that would affect the flow of traffic in and out of the yard. In FMC Wyoming Corp. v. Union Pacific Railroad, 4 S.T.B. 699, 736-38, 792-93 (2000), the Board accepted an adjusted railroad operating plan, but rejected complainant's yard design evidence as unsupported. There is no indication in FMC Wyoming Corp., however, that the parties' yard evidence involved two completely different yard types as in this proceeding. Rather, the Board concluded that both parties' evidence was lacking in explanation of yard function and in details regarding configuration, but the railroad's yard design was more likely to sufficiently serve the traffic. Similarly, in Carolina Power & Light Co. v. Norfolk Southern Railway, 7 S.T.B. 235, 259, 273-283 (2003), the Board accepted the railroad's operating plan while accepting the complainant's branch line configuration and the plaintiff's configuration for some mine track facilities. Again, these facilities were not central to the flow of significant amounts of traffic, in that case. In contrast, in two of the cases cited by Sunbelt,

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Even if the Board had wished to use a mixed operating plan involving NS's Birmingham yard and the rest of Sunbelt's plan, that approach would not have been appropriate in this case, given that the substitution would impact a fundamental aspect of the SARR's operating structure. To simply try to stitch NS's hump yard onto Sunbelt's operating plan would not have been feasible without requiring additional changes to evidence that the Board was not in a position to make, for the reasons explained directly below.

Here, NS's configuration of the Birmingham yard included five receiving tracks and six departure tracks, while Sunbelt's configuration had only four receiving/departure tracks, two of which are also used for train inspections, which can take up to five hours, during which time blocking and classification is not occurring on these tracks.<sup>7</sup> Thus, Sunbelt's two non-inspection tracks are not true receiving/departure tracks, but sidings. (See Sunbelt Rebuttal workpaper "SBRR Rebuttal Sticks.pdf" at 9 (showing Sunbelt's Birmingham yard configuration).) As discussed below, this significant difference in yard configurations would affect the Rail Traffic Controller (RTC) model results, and the Board has explained that the RTC model provides essential evidence to support a SARR's configuration and certain broader operating statistics. Total Petrochemicals & Refining USA v. CSX Transp., Inc., NOR 42121, slip op. at 7 (STB served Sept. 4, 2015); W. Fuels Ass'n v. BNSF Ry., NOR 42088, slip op. at 15 (STB served Sept. 10, 2007); Xcel 2004, 7 S.T.B. 589, 613-14 (2004).

We disagree with Sunbelt's claim that, because the RTC program does not model switching in yards and the parties used the same dwell times, the Board could have substituted the NS hump yard for Sunbelt's flat yard. (Sunbelt Pet. 10.) While the RTC program does not model switching in yards, or at any other location on the network for that matter, it does model trains occupying both yard receiving and departure tracks. Yard receiving and departure tracks are integral to the RTC modeling. If all of the receiving tracks are occupied when a train arrives at the yard, the arriving train will be forced to wait on the main line until a receiving track is available. Conversely, if all main line tracks are occupied, trains departing yards may be forced

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the Board concluded that its choice between the parties' yard evidence was dependent upon the selection of the operating plan. Public Service Co. of Colo. v. Burlington N. & Santa Fe R.R. (Xcel 2004), 7 S.T.B. 589, 634 (2004); Duke Energy Corp. v. CSX Transp., Inc., 7 S.T.B. 402, 431, 442 (2004) (accepting adjusted railroad operating plan and stating that railroad's yard configuration would be accepted because "[y]ard size is dependent on how the [SARR] would operate."). Thus, in past cases, including those Sunbelt cites, the Board's evaluation of yard evidence has depended upon the nature of the yards at issue and the evidence presented by the parties.

<sup>7</sup> See Sunbelt Rebuttal workpaper "SBRR Rebuttal Sticks.pdf" at 9 (showing Sunbelt's Birmingham yard configuration); NS Reply workpaper "SBRR Yard Sticks NS Reply.pdf" at 1, Jan. 7, 2013 (showing NS's Birmingham yard configuration); NS Reply, III-C-187, Jan. 7, 2013 (accepting Sunbelt train inspection times).

to occupy departure tracks beyond their assigned dwell time. A train waiting for either entrance to or exit from a yard will have a cascading effect on all other trains that follow, overtake, or meet it. Therefore, the configuration of yards and assigned dwell times will affect the operations well beyond the confines of the yards. In a case such as this one, in which there are fundamental differences between the parties' configuration of a yard through which most of the SARR traffic passes, the Board could not simply substitute one party's yard for the other's yard and assume that the change would not affect the RTC results.

The Board also could not have run the RTC program with NS's yard inserted into Sunbelt's operating plan without making further alterations to the evidence. This is because the RTC model goes through an iterative process to resolve train conflicts in order to keep the network fluid and allow trains to complete their journey. While the RTC can resolve many train conflicts or identify bottlenecks, it does not have the ability to gauge the effect of the changes on operating expenses, service commitments, hours of service rules for train crews, and infrastructure decisions. For example, the RTC program could model a train successfully moving from origin to destination, but that train may still fail to achieve the service standard. Similarly, the RTC program does not have the ability to determine the optimal location for adding track because it cannot consider the location of bridges, highway crossings, topography, and other physical constraints. A user must manually review the RTC results to check for problems and decide how to address any issues identified. Further, a change to the RTC model cannot be made in a vacuum but must take into account its effects on service, operating, and infrastructure issues over the ten-year operating period.

In addition, adding the hump yard to Sunbelt's operating plan would have required the Board to add the costs of the hump yard to the SBRR without evidence of the precise impact that the yard would have on the operating plan. Specifically, substitution of NS's proposed hump yard into Sunbelt's operating plan would have required user inputs and model-related decisions best left to the parties. But to do that, the Board would essentially have needed to permit Sunbelt to resubmit its case-in-chief, something that is not permitted—particularly given that there was a usable operating plan from the railroad and that Sunbelt itself argued against adding the hump yard throughout the case. See Duke/NS, 7 S.T.B. at 100 (complainant "must present its full case-in-chief in its opening evidence").

Specifically, Sunbelt itself had the opportunity to argue for a modification to its operating plan that would have included the hump yard. Instead, it argued against adding a hump yard to its operating plan in its rebuttal and final brief. (Sunbelt Rebuttal III-C-101 to III-C-103; Sunbelt Br. 14-15.) Sunbelt may not now claim error by adopting an argument it opposed throughout the case. Prior to its petition for reconsideration, Sunbelt never suggested that the hump yard could easily be substituted into Sunbelt's operating plan. We therefore reject Sunbelt's claim on reconsideration that the Board should have second-guessed Sunbelt and modified its evidence. Although the Board has modified parties' evidence in other cases under different circumstances, that does not mean that the Board must make a case for a complainant, especially when the complainant has expressly opposed that modification, and the defendant has provided useable evidence. While the Board is more than a passive arbiter in rate cases, see Public Service Co. of Colorado v. Burlington Northern & Santa Fe Railroad, NOR 42057, slip op. at 3-4 (STB served Jan. 19, 2005), that does not require the Board to identify alternatives that parties did not

identify, particularly when, as discussed above, the effect of those changes is unclear and useable evidence has been submitted by another party.

A second option that Sunbelt argues the Board could have taken rather than accepting NS's operating plan was to solicit supplemental evidence on this issue. However, the Board agrees with NS that this approach is also unreasonable. Although the Board has sought supplemental evidence in past SAC cases, it has done so in circumstances different from those here. Specifically, in Total Petrochemicals & Refining USA, Inc. v. CSX Transportation, Inc., NOR 42121, slip op. at 6 (STB served July 24, 2015), AEP Texas North Co. v. BNSF Railway, NOR 41191 (Sub-No. 1) (STB served March 17, 2006), Otter Tail Power Co. v. Burlington Northern & Santa Fe Railway, NOR 42071 (STB served Dec. 13, 2004), and Arizona Electric Power Cooperative v. Burlington Northern & Santa Fe Railway, NOR 42058 (STB served Nov. 19, 2003), the Board solicited supplemental evidence when *neither* party provided the evidence necessary for the Board to complete its regulatory review. Here, the Board had an adequate record, and thus, there was no need to seek supplemental evidence.

Sunbelt also argues that NS could have responded differently to Sunbelt's fundamentally flawed operating plan. Sunbelt contends that NS, on reply, could have added blocking and classification at intermediate yards without submitting an entirely new operating plan. (Sunbelt Pet. 5.) In particular, Sunbelt argues that NS could have used the same methodology that Sunbelt used to develop a blocking and classification plan on rebuttal, rather than using MultiRail.<sup>8</sup> In fact, Sunbelt states that NS had declared Sunbelt's methodology to be "conceptually sound" in another proceeding. (Id.)

As discussed in the Decision and below, Sunbelt is correct that no party is required to use MultiRail or similar software to develop a SAC presentation involving carload traffic, and that adopting the classification and blocking plan of the incumbent railroad, with the necessary traffic and facilities sufficiently adjusted for volume differences (among other things), is one way to show that the proper blocking and classification is occurring at yards on a SARR. See Decision, slip op. at 17. Thus, Sunbelt is also correct that MultiRail is not "necessary," in the sense that it is not the only approach a party can use to account for blocking and classification. Even though MultiRail is not required, however, the Board has found that it is an acceptable way to address blocking and classification for a predominantly carload SARR. Id. And at the time NS filed its reply, the record contained no proposed method from Sunbelt of accounting for blocking and classification, because Sunbelt did not include one on opening. NS, having to produce the first analysis of this issue in this proceeding, was free to choose among appropriate approaches, including MultiRail. We note, however, that if Sunbelt had developed a blocking plan without using MultiRail, NS would have needed to respond to that blocking plan instead of creating its own.

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<sup>8</sup> MultiRail computer software is a modeling tool that generates car classification and blocking service plans for a selected traffic group, based upon characteristics of the traffic, the railroad's network configuration, and customer service requirements.

Citing a footnote in Duke Energy Corp. v. Norfolk Southern Railway (Duke/NS), 7 S.T.B. 89, 101 n.20 (2003), Sunbelt also states that, if Sunbelt’s operating plan had been “so flawed as to preclude the development of appropriate reply evidence to address the flaws,’ NS was required to ‘file a separate motion bringing that problem to the Board’s attention.’” (Sunbelt Pet. 5 (emphasis added by Sunbelt).) However, Sunbelt misinterprets the Duke/NS footnote, which refers specifically to the hypothetical situation in which the complainant’s evidence is so flawed that the defendant cannot develop appropriate reply evidence at all. That is not the situation here. Although Sunbelt’s operating plan was missing a key component (blocking and classification evidence), its operating plan and other opening evidence were not so flawed as to make it impossible for NS to respond. NS was able to correct this omission by developing its own operating plan, one that addressed blocking and classification.

Lastly, Sunbelt argues that even if the Board or NS did not attempt to correct Sunbelt’s operating plan, the Board should have nonetheless rejected NS’s operating plan because it proposed a new operating plan rather than attempting to correct Sunbelt’s plan. However, the Board sufficiently addressed this argument in the Decision. The Board stated that, “[i]n most circumstances, the Board would indeed require the defendant in a SAC case to make any necessary corrections to the complainant’s opening evidence rather than submitting something entirely new on reply, to avoid having operating plans so different as to impede comparison.” Decision, slip op. at 13. Although Sunbelt asserts in its petition for reconsideration that the Board departed from this policy without explanation, Sunbelt ignores the language that follows, which provides an explanation of why this case is different: “Sunbelt’s operating plan on opening included a major design flaw: no blocking and classification analysis at intermediate yards. Thus, on this issue, there was nothing for NS to correct on reply. To provide this essential part of the operating plan for a predominantly carload system, NS needed to supply its own analysis.” Id. (footnote omitted).

Here, because Sunbelt’s opening operating plan omitted blocking and classification—an essential part of the operating plan for a predominantly carload system—NS was free to supply its own analysis on that issue in order to complete its reply evidence. Id. at 17. Under the unusual circumstances of this case, NS’s new operating plan, which included the equipment and facilities necessary for an essential function, was appropriate reply evidence. The alternative proposed by Sunbelt—in which a complainant’s omission of a crucial component of the operating plan would require the defendant to prompt the complainant for additional evidence supplying that component before the defendant could respond—would increase the length and cost of this process, contrary to the interests of parties and the Board.

MultiRail. In addition to its general arguments regarding MultiRail, addressed above, Sunbelt also renews its objection to the use of MultiRail from an evidentiary standpoint. Sunbelt argues that without a full version of MultiRail, Sunbelt and the Board were unable to assess NS’s operating plan adequately.<sup>9</sup>

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<sup>9</sup> Sunbelt also contends that NS had an evidentiary obligation to submit the MultiRail program into evidence or serve it upon Sunbelt. (Sunbelt Pet. 12.) However, as the Board found  
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In the Decision, the Board stated that, while the Board does not have the MultiRail software, it is able to analyze its inputs and outputs just as it would if the blocking and train service plans were developed by operating experts without the use of software. Decision, slip op. at 18. Sunbelt takes issue with this conclusion, asserting that “[i]n another recent SAC decision, the Board has admitted that it could not independently review the NS evidence because it did not have access to MultiRail.” (Sunbelt Pet. 12 (citing E.I. du Pont de Nemours v. Norfolk S. Ry. (DuPont), NOR 42125, slip op. at 45-46 (STB served Mar. 24, 2014, corrected & updated Oct. 3, 2014), recons. denied (STB served Dec. 23, 2015).) However, the language from DuPont that Sunbelt cites does not support Sunbelt’s characterization. In DuPont, the Board stated that, even if it were appropriate to modify NS’s operating plan to address the complainant’s claims regarding external rerouting, this particular modification would not be possible because the complainant provided no evidence that would enable the Board to identify and alter each specific instance of a reroute. DuPont, NOR 42125, slip op. at 45. This fact, however, does not preclude the Board from seeking MultiRail modifications when necessary.

Sunbelt argues that, to assess NS’s operating plan adequately, Sunbelt and the Board would have needed the ability to modify the NS plan to correct for inefficiencies, and that such modification was not possible without a full, read-write copy of MultiRail. (Sunbelt Pet. 13.) We disagree with Sunbelt’s claim that assessment of NS’s operating plan requires the ability to modify that plan. As the Decision indicated, if the blocking and train service plans were developed by operating experts without the use of software, the Board would assess those plans by analyzing their inputs and outputs. Decision, slip op. at 18. In that instance, there would be no software program with which to re-run and alter the experts’ analysis. As the Board has held, while the use of MultiRail is permissible, a party is not required to use MultiRail or similar software to develop a SAC presentation involving carload traffic.<sup>10</sup> Id.

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in the Decision, NOR 42130, slip op. at 40-41 n.75, and in the March 27, 2013 decision in this docket, Sunbelt withdrew its argument that NS should be required to provide Sunbelt with a full, read-write version of MultiRail. In this respect, Sunbelt’s reference to Bartley v. Isuzu Motors Ltd., 151 F.R.D. 659 (D. Col. 1993) is inapposite.

<sup>10</sup> What is critical is that the complainant shows in some manner that it includes the costs of all necessary facilities and services, and provides evidentiary support for these costs. This inclusion of costs, with evidentiary support, could satisfy the SARR’s need for blocking in a carload system without adopting the blocking and classification of the incumbent railroad and without using a program such as MultiRail to model the blocking and movement of each car. Here, Sunbelt did not include the costs associated with the necessary facilities and services. See Decision, slip op. at 14-16.

### Additional Issues Raised by Sunbelt

Interest-only debt amortization. In the Decision, the Board declined to apply Sunbelt's proposal to change the interest schedule used in prior cases. Pursuant to "Board precedent, as Sunbelt acknowledges, the SARR's debt payments contain an interest component and a principal component, and the interest portion decreases as the debt is amortized over time." Decision, slip op. at 191. Under Sunbelt's proposal, for purposes of calculating the tax-shielding effect of interest payments, the SARR would have made quarterly interest-only coupon payments over a 20-year period, rather than amortizing the debt in mortgage-style payments (that include principal and interest) over that period. Id. In its petition for reconsideration, Sunbelt argues the Board erred in rejecting its proposal because "repayment of any principal amounts borrowed is accounted for in the levelized stream of capital recovery payments, not in the debt amortization approach." (Sunbelt Pet. 14.) Sunbelt argues that the purpose of the debt amortization calculation is only to determine the amount of the interest payments for purposes of estimating state and federal taxes, but not to account for the repayment of any borrowed funds. (Id. at 14-15.)

NS replies that a SARR should pay down its debt, and thus, the Decision properly applied the mortgage-style amortization schedule. (NS Reply 19-20, Sept. 9, 2014.) NS notes that Sunbelt proposes a break with long-standing precedent, and that Sunbelt's approach would artificially inflate the SARR's net present value. NS believes that it would undermine the SAC test to assume that a SARR could perpetually roll over its debt without ever paying down principal.

The Board did not err by declining to apply Sunbelt's proposed interest-only schedule. In order to perform the SAC analysis, the Board makes certain assumptions that give structure to the pattern of expenses and outlays over time through an iterative process. As the agency has explained, "[t]he need to deal with the implications of taxes considerably complicates the actual determination of the SAC constraint, because taxes are a function of the flow of revenue over the [SAC] period, and not just the present value of revenue." Bituminous Coal—Hiawatha, Utah, to Moapa, Nev., 10 I.C.C.2d 259, 277 n.29 (1994) (employing a year-by-year computation to solve for a particular flow of revenue that equals the present value of the SAC analysis, including taxes). To meet the competing interests of accuracy and practicability, the Board has determined that interest payments on outstanding debt will flow through the Board's discounted cash flow (DCF) analysis at two places in the model. The dollar amounts of the SARR's quarterly interest payments are calculated based on the SARR's outstanding debt principal amount and incorporated into the Investment SAC spreadsheet's capital carrying charge. In effect, this represents the SARR's quarterly payment to service its debt. In addition, because there is some tax benefit to financing with debt as opposed to equity, the tax shielding effects of interest payments are calculated in the Interest spreadsheet's debt amortization schedule, which then flows through the Investment SAC spreadsheet's present value calculation. As discussed below, because of simplifying assumptions, these interest payment amounts are not calculated in the same fashion.

The Board's long-standing policy of modeling the SARR's interest payments appropriately reflects both the nature of a SARR and the questions that SAC seeks to answer.

The SARR is a start-up business and would not necessarily have the same level of debt, or debt maturity mix, as a more established entity like the incumbent railroad. Moreover, the SARR's debt level, and the associated interest rates, would likely fluctuate as the SARR works to roll over certain debt at its maturity date,<sup>11</sup> or incurs additional debt for new investment. Ultimately, it is reasonable to assume that a SARR's debt structure will come to resemble that of the incumbent railroad or other Class I operations over time. However, in the short term (i.e., the 20-year amortization period), "[t]he SAC test asks whether the SARR can pay the cost of constructing, maintaining and operating its systems," Decision, slip op. at 191. In addition, for purposes of determining the tax-shielding effect of interest payments, the interest portion of the SARR's debt payments decrease as if the debt is amortized over time.

If time and complexity were no issue, the SAC analysis would attempt to precisely predict the timing and financing charge for the SARR as it strives to achieve its optimal debt level over time. In practice, however, it is clear that the burdens of such an enterprise would make the SAC analysis far too complicated. Accordingly, the Board must incorporate appropriate simplifying assumptions to ensure that the SAC process is manageable. "The pursuit of precision in rate proceedings, as in most things in life, must at some point give way to the constraints of time and expense, and it is the agency's responsibility to mark that point." BNSF Ry. v. STB, 453 F.3d 473, 482 (D.C. Cir. 2006). Here, that simplifying device is to roll the SARR's debt over into perpetuity to determine the capital carrying charge.

As noted by the Board in the Decision, slip op. at 191, there are a number of such simplifying devices in the SAC test that result in differences in treatment between the SARR and the incumbent railroad, which can be favorable to one party or another when viewed in isolation. For instance, the SARR is allowed to expedite its construction without paying a construction cost premium, with the added benefit in this case to the SARR of being able to apply bonus depreciation to the entire construction period. On the other hand, the initial investment base financed by the SARR incorporates a present value of the future replacement costs for the SARR, requiring financing expenditures by the SARR in earlier years – a financial decision that an incumbent would not likely make.

With respect to the repayment of debt at issue here, the Board allows the SARR to roll over its debt as if it were a mature entity, without any associated interest rate risk,<sup>12</sup> because it would otherwise be too complex to keep adjusting the debt and equity mix for purposes of determining the capital carrying charge in the Investment SAC spreadsheet. Thus, Sunbelt is

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<sup>11</sup> The Board has previously discussed refinancing-of-debt issues in the context of a complainant seeking to lower its SARR's financing costs shortly after construction. See AEP Tex. N. Co. v. BNSF Ry., NOR 41191 (Sub-No. 1), slip op. at 106-07 (STB served Sept. 10, 2007), recons. denied (STB served May 15, 2009), vacated on other grounds and remanded sub nom. AEP Tex. N. Co. v. STB, 609 F.3d 432 (D.C. Cir. 2010).

<sup>12</sup> This lack of an associated interest rate risk is reduced somewhat by any party's right to petition the Board to reopen a proceeding on the grounds of substantially changed circumstances if interest rates significantly change. Decision, slip op. at 193.

mistaken in its argument that the repayment of debt principal is accounted for in the Board's Investment SAC capital carrying charge calculation. The capital carrying charge device calculation does not assume that the debt is amortized, or that new debt is incurred when assets are replaced. Thus, without principal repayment being accounted for in the Interest spreadsheet, the SARR would, as the Board explained in the Decision, slip op. at 191, pay no principal throughout the DCF period – meaning that it would not have paid for its assets.

The fact that the Board must use a simplifying assumption in the calculation of interest rates as part of the Investment SAC spreadsheet does not mean that the same simplifying assumption must also be used in the Interest spreadsheet. The determination of the SARR's interest payments in the early years for purposes of calculating the tax-shielding effect of the debt financing in the Interest spreadsheet does not raise the same complexity issues as adjusting the debt and equity mix in the Investment SAC spreadsheet.

It was not material error for the Board to decline to apply Sunbelt's proposed simplification to the Interest spreadsheet.

Ad valorem taxes. In its petition for reconsideration, Sunbelt argues that the Board erred by accepting NS's proposed method for calculating ad valorem taxes (a state property tax) and that instead the Board should have applied Sunbelt's proposed method, which the Board accepted in prior cases. (Sunbelt Pet. 15-17.) Under Sunbelt's method, it calculated the SBRR's ad valorem taxes by multiplying the SBRR's route miles in each state by the rate of ad valorem taxes NS paid per route mile in that state and summing the results for each of the states in which the SBRR would operate (Alabama, Louisiana, and Mississippi). (Sunbelt Opening III-D-21.) However, the Board accepted NS's argument that ad valorem taxation is not primarily a function of route miles, but instead is a function of profitability, and thus, it was not proper to simply rely on the rates that NS paid, as the SBRR's profitability would be different. Accordingly, it accepted NS's approach, in which it calculated a "unit value modifier" that measures the relative profitability of the SBRR vis-à-vis NS to adjust the SBRR's total ad valorem tax burden.

On reconsideration, Sunbelt alleges that the Board disregarded its argument that NS's calculations did not account for current and deferred taxes owed by the SARR over the 10-year DCF period, potentially resulting in an overstatement of the SARR's income and therefore also an overstatement of ad valorem taxes. Sunbelt also contends it was error for the Board to assume that the SARR would not incur any taxes during the SAC analysis period. NS replies that the Board addressed Sunbelt's argument in the Decision and concluded that, regardless of minor flaws in NS's method, that approach was fundamentally superior to Sunbelt's method. (NS Reply 20-22, Sept. 9, 2014.) NS notes that the SARR would pay income taxes late in the SAC analysis period, and claims that its conservative approach to accounting for the SARR's increasing income over the SAC analysis period would more than correct for the tax-related overstatement Sunbelt raises.

We find that the Board materially erred by accepting NS's ad valorem tax methodology. Sunbelt is correct that the Board has a long-established precedent of using its route-miles comparison approach to calculate ad valorem taxes. See Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113, slip op. at 79 (STB served Nov. 22, 2011), pet. denied sub nom. Ariz. Elec. Power

Coop. v. STB, 748 F.3d 1295 (D.C. Cir. 2014); Tex. Mun. Power Agency v. BNSF Ry., 6 S.T.B. at 690; FMC Wyo. Corp., 4 S.T.B. at 843. In instances where a complainant's evidence follows agency precedent regarding a particular methodology, it is the defendant who "carr[ies] the burden to justify a departure from that methodology." Ariz. Elec., slip op. at 33. Although the Decision, slip op. at 67, stated that NS had made a "strong case for departing from . . . precedent" with its proposed methodological switch to a unit valuation approach for calculating ad valorem taxes, the Decision should have more thoroughly assessed NS's application of that methodology to the facts of this case. Having done so, we now find that NS's proposal contains too many flaws and unanswered questions to justify a departure from prior precedent.

Part of the reason the Board has traditionally used the route-miles comparison approach to ad valorem taxes is because of its ease of application. As previously discussed, the application of tax calculations to an ongoing iterative process seriously complicates the analysis. NS's burden to justify a departure from precedent cannot be based on theory alone if that theory cannot be practicably applied.

The premise underlying the proposed change to a unit valuation approach for determining ad valorem taxes is based on the principal that in certain states the SARR will pay higher taxes than the incumbent railroad because the SARR is more profitable than the incumbent railroad. However, as Sunbelt points out (Sunbelt Rebuttal III-D-51), this is not a foregone conclusion. NS's "unit value modifier" methodology is predicated on a stable relationship between the Net Railway Operating Income (NROI) of the SARR and the incumbent carrier in the Base Year of the SAC analysis period. However, after further review, the Board finds that NS has failed to demonstrate that such a relationship will remain consistent over the life of the SARR. NS also fails to adequately respond to Sunbelt's contention that the NROI approach represents an apples-to-oranges comparison because the incumbent's income is calculated after tax while the SARR's is not. (Sunbelt Pet. 15-17.) Finally, although not an issue directly raised by the complainant, we question NS's choice of the Operating Expenses deduction in the calculation of the SARR's NROI in NS's workpapers template. This figure, which is hard-coded in NS's worksheets, appears to include a line item amount for ad valorem taxes. Thus, it would appear that NS is using a calculation that both includes an amount for ad valorem taxes and also attempts to solve for ad valorem taxes, without reconciling the two. This apparent circularity raises concerns regarding the integrity of NS's calculation.

The Board recognizes that some of the concern over the deferred tax issue might be addressed by NS's use of the straight-line depreciation method in its workpapers template. (NS Reply WP "Ad Valorem Tax\_Reply.xlsx", Jan. 7, 2013.) Nonetheless, other than to state that its approach is conservative, NS does not address the impact of deferred taxes in either the early years of the SARR, or more importantly, in the later years when the SARR's operations have matured.

Aside from issues with the unit modifier value methodology, there is a fundamental inconsistency with NS's argument. While NS contends its calculation of the SBRR's profits (and thus the tax rates) are conservative because the SARR would not pay income taxes until late into the SAC analysis period (NS Reply 21-22, Sept. 9, 2014), this assertion cuts against the premise that the SARR will be more profitable than the incumbent carrier. In other words, NS

cannot logically argue that Sunbelt's SAC case fails because the SBRR cannot cover its costs, yet also claim that the SBRR is profitable.

For these reasons, we conclude that the Decision erred in failing to adequately consider the methodological flaws and unanswered questions associated with NS's proposed approach to ad valorem taxes. We therefore reconsider the Board's decision to accept NS's method for calculating ad valorem taxes and instead accept the traditional method Sunbelt proposed on opening.

Excavation Costs. Sunbelt developed its earthwork excavation costs using costs NS incurred on a single realignment project—the rerouting and building of a rail line—in Centerville, Tenn., known as the Trestle Hollow Project. NS disagreed with this approach and instead used costs from the R.S. Means Handbook (Means).<sup>13</sup> In the Decision, the Board rejected Sunbelt's proposed use of the Trestle Hollow Project excavation costs as a benchmark for the SBRR's excavation costs because Sunbelt did not demonstrate that the excavation costs incurred on a 1.3-mile rail line relocation project in Tennessee were representative of the costs the SBRR would incur in constructing a 578-mile, multi-state railroad. The Board agreed with NS that the size, scope, and geographic and topographic characteristics of the SBRR make the use of Means more appropriate than the extrapolation of costs from a single project.

In seeking reconsideration, Sunbelt argues that the Trestle Hollow Project evidence is a “conservative overstatement” of the actual common excavation costs, contending that the Trestle Hollow Project was far more complicated than typical common excavation projects. (Sunbelt Pet. 17-18.) Sunbelt also asserts that Means does not reflect the SARR's economies of scale and therefore overstates the SARR's costs. (Id. at 18-19.) Sunbelt further claims that the Board's statement that it was rejecting use of the Trestle Hollow Project as a proxy because it was not “a fully supported ‘real-world substitute’” would mean the Board unreasonably requires evidence of a project that precisely matches the SARR in size and scope. (Id. at 19.) Lastly, Sunbelt claims that a comparison of the road property investment costs in this case to past cases shows that the Board's acceptance of NS's excavation costs was in error. (Id. at 19-20.)

In its reply to Sunbelt's reconsideration petition, NS argues that Sunbelt did not identify any material error in the Board's decision, that the record included other examples of rail construction projects that could have been used as benchmarks, that Means does account for economies of scale that would be available to the SBRR, and that Sunbelt's arguments comparing the road property investment costs here to prior cases do not provide a basis for reconsideration. (NS Reply 22-30, Sept. 9, 2014.)

Sunbelt's request for reconsideration of this issue will be denied. Sunbelt claims that the Trestle Hollow Project was far more complicated than typical common excavation projects, and

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<sup>13</sup> Means is a construction cost publishing and consulting company that annually publishes current, comprehensive construction cost data. Among its many uses, the data are used to estimate construction costs.

therefore, that it is a “conservative overstatement” of common excavation costs. The Board addressed this argument in the Decision:

The two projects involve construction over significantly different topographies with different soil characteristics and different economies of scale. Sunbelt itself recognizes these differences, but tries to explain them away by arguing that both projects are still similar enough because both are “complicated.” But those complexities only highlight the differences between constructing a line in a small, rugged section of Tennessee, and constructing a system of lines through stretches of wetlands in Alabama, Mississippi, and Louisiana. Just because both types of construction would be complicated in a general sense does not mean that the costs from one would be similar to the other.

Decision, slip op. at 107. Sunbelt does not address this reasoning in its petition for reconsideration; rather, it repeats its previous assertion regarding the complicated nature of both projects.

In addition, as NS argues, Sunbelt did not present evidence of other projects having lower excavation costs than the Trestle Hollow Project, leaving no basis for any comparison that would show the Trestle Hollow Project costs were a “conservative overstatement.” In contrast, NS, in its reply evidence, cited the cost of other projects which, when compared to the Trestle Hollow Project excavation costs, demonstrate that the Trestle Hollow Project costs are at the low end. (See NS Reply III-F-40 to III-F-47, Jan. 7, 2013.)

Sunbelt argues that NS provided only a limited number of documents containing earthwork cost information for comparison, and virtually all of these documents were estimates for short track extensions and yard track—projects involving additions or modifications to existing track and right-of-way, which are more expensive than new rail construction because they often require construction under traffic, or adjacent to active tracks. (Sunbelt Opening III-F-12.) But NS did not limit its document production to such projects. Rather, NS produced a list of Authorizations for Expenditure (AFE) for all NS construction projects completed during the time period from January 1, 2007 through December of 2011. (NS Reply III-F-40, Jan. 7, 2013.) NS’s AFE list included information for 897 separate AFEs covering all aspects of NS capital expenditures over the relevant time frame. (Id.)

Sunbelt takes particular issue with NS’s reliance on information regarding its Keystone Build-Out Project near Shelocta, Pa., one of the largest new rail construction projects in the U.S. in recent years. (See id. at III-F-43 to III-F-44.) Sunbelt claims that the Keystone Project is an unreliable source of cost information because it consists of NS internal estimates rather than bids from contractors, it is distant from the SBRR, and its earthwork quantities do not distinguish between common, loose, and solid rock, even though the project was within 15 miles of a segment included in a valuation section that has over 46 percent solid rock. (Sunbelt Rebuttal III-F-26 to III-F-27.) Sunbelt makes the same argument against comparing the SBRR to the

Keystone Project as the Board made for comparing the SBRR to the Trestle Hollow Project: that reliance on a single project with different geographic features is inappropriate.<sup>14</sup> But unlike Sunbelt, NS did not attempt to rely solely on a single project for its construction costs—it merely used the Keystone Project as one basis of comparison.

Thus, notwithstanding Sunbelt’s claim that the Trestle Hollow Project provides a “conservative overstatement” of common excavation costs, a comparison to costs from other sources in the record indicates that this evidence actually understates such costs. (See, e.g., NS Reply III-F-40 to III-F-48, Jan. 7, 2013.) In any event, Sunbelt’s characterization of the Trestle Hollow Project costs is unsupported, given the other rail construction cost evidence in the record.

Sunbelt next contends that Means overstates the SARR’s costs because it does not reflect the SARR’s economies of scale. (Sunbelt Pet. 18-19.) The Board agrees with NS, however, that Means, which has been used in many rate cases, accounts for economies of scale by providing costs for a wide variety of different sizes and types of equipment, including large equipment packages with higher productivity and efficiency that are used in large projects. (See NS Reply 25-26, Sept. 9, 2014.) NS points out that under the theory of unconstrained resources that is used in SAC cases, a SARR using Means can deploy as many equipment and manpower packages (subject to feasibility limitations including size of equipment) as it wants along its right-of-way.

Sunbelt does not directly address NS’s argument that the choice of equipment packages under Means would account for economies of scale, but refers to the statement of its expert witness that Means costs are overstated because they reflect an average of costs for projects of all sizes, and that economies of scale can reduce costs for large projects. (Sunbelt Pet. 18-19.) But Sunbelt does not attempt to define or quantify the effect of those economies. Thus, Sunbelt presents a general argument that unit costs should be lower than those provided by Means due to economies of scale associated with a large project, but it does not tie that argument to the specific Trestle Hollow costs it proposes. (See Sunbelt Rebuttal III-F-16.) Even assuming Sunbelt were correct that the most accurate cost level is something lower than Means due to economies of scale, Sunbelt provides nothing to show that the accurate cost level is close to the Trestle Hollow costs. Without making such a connection, Sunbelt cannot overcome the evidence indicating that the Trestle Hollow costs are low in comparison to other cited projects in the record.

Next, Sunbelt claims that the Board’s statement that it was rejecting use of the Trestle Hollow Project as a proxy because it was not “a fully supported ‘real-world substitute’” would mean the Board requires evidence of a project that matches the SARR in size and scope. Sunbelt

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<sup>14</sup> (See NS Reply III-F-37 to III-F-40, Jan. 7, 2013.) Sunbelt argues that the high concentration of excavation volumes should be discounted as a factor because the Trestle Hollow Project was especially complicated and difficult, stating that the Trestle Hollow Project required “careful coordination” with regard to several construction activities. (See Sunbelt Rebuttal III-F-20.) But construction projects on the SBRR may also require coordination, and Sunbelt did not attempt to show otherwise.

argues that this would impose an impossible standard on the complainant, as there are no such projects on which to base such a comparison. (Sunbelt Pet. 19); see Decision, slip op. at 107-08. However, Sunbelt misinterprets the Board's language. As Sunbelt points out, railroads the size of the SBRR have not been constructed in the United States in recent history. Thus, the Board acknowledges that use of the phrase "fully supported 'real-world substitute'" cannot be read to require the submission of actual construction costs from such a project. Instead, the Board was referring to the need for evidence that is representative of the costs the SARR would incur and the inclusion of "more than one estimate to avoid potential aberrations," Decision, NOR 42130, slip op. at 107-08. Sunbelt contends that, if a complainant chooses to rely on direct project evidence rather than project averages from Means, it should not be required to identify multiple real-world rail construction projects at locations on or near the SARR, which Sunbelt claims is not feasible. But the Decision does not state that projects cited by parties must be located on or near the SARR, only that they must be more representative of the SARR's construction than the single sample Sunbelt relied on here. It is not unreasonable for parties who choose not to rely on Means to provide more than one example in order to avoid a result skewed by a single, atypical observation—such as reliance on the Trestle Hollow Project as a proxy for the SBRR.

Finally, Sunbelt argues that the investment cost per route-mile in this proceeding is higher than in any other SAC case (despite a lack of mountainous terrain) and that the "single most significant reason" for the high costs is the Board's decision to accept Means rather than Sunbelt's proposed excavation cost. (See Sunbelt Pet. 19-20.) But even if the total investment costs in this case were significantly higher than past cases, that general observation by itself fails to show material error; in particular, it provides no indication that the higher costs were unsupported by the record in this case. Moreover, Sunbelt is comparing apples to oranges. Although Sunbelt is challenging excavation costs specifically, its comparison across cases is of total road property investment per route-mile. Excavation costs are but one component of many in total road property investment, and Sunbelt provides no support for its assertion that excavation costs are the most significant reason for the alleged difference.<sup>15</sup>

For these reasons, we will not reconsider the Board's decision to use NS's excavation cost rather than Sunbelt's proposed cost.

Ballast quantities. Sunbelt argues that the Board materially erred by applying a weight-to-volume conversion factor of 1.5 tons per cubic yard for determination of ballast and subballast quantities. (Sunbelt Pet. 20-21.) On opening, Sunbelt proposed a conversion factor of 1.5 tons

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<sup>15</sup> NS also demonstrates that there are flaws with Sunbelt's method of comparing the road property investment costs across cases. (NS Reply 26-30, Sept. 9, 2014.) NS shows that if the Board's standard indexing method were used and the unit of comparison were changed from route miles to track miles, there would be a different conclusion about the relative costs of road property investment. Under NS's methodology, four cases would have higher costs than this proceeding rather than one case with higher costs under Sunbelt's methodology. NS also shows that making the same adjustments to compare only excavation costs would also result in different relative costs between Board decisions, with Sunbelt costs falling on the lower end.

per cubic yard in its narrative. (Sunbelt Opening III-F-22.) In this same narrative, Sunbelt referred to this factor as standard and asserted that it is conservative compared to the 1.325 factor used in the “Track Data Handbook.” (*Id.* at III-F-23.) However, on reply, NS pointed out that Sunbelt’s workpapers did not in fact apply the 1.5 conversion factor, but rather applied a 1.35 conversion factor. (NS Reply III-F-123 to III-F-124, Jan. 7, 2013.) NS accepted the 1.5 conversion factor, noting that Sunbelt had described the 1.5 conversion factor as standard. (*Id.* at III-F-123.) On rebuttal, Sunbelt argued that it intended to use the 1.35 conversion factor, which was in its opening workpapers, and that NS should have known this because discovery materials show that NS uses a conversion factor of 1.32 in its normal course of business. (Sunbelt Rebuttal III-F-76 to III-F-77.) Therefore, Sunbelt concluded, the Board should accept the 1.35 conversion factor Sunbelt intended to propose on opening. (Sunbelt Rebuttal III-F-77.) In resolving this dispute, the Board accepted the 1.5 conversion factor, reasoning that Sunbelt had stated and defended that conversion factor in its narrative, and NS relied upon those statements. Decision, slip op. at 130, 132.

On reconsideration, Sunbelt claims that the Board materially erred by applying the 1.5 conversion factor and asserts again that NS should have been aware that Sunbelt intended to use the 1.35 conversion factor notwithstanding its narrative. (Sunbelt Pet. 20-21.)

The Board did not materially err by applying the 1.5 conversion factor. When there are conflicts between a party’s narrative and workpapers, “[g]enerally, the narrative controls in this situation.” Ariz. Elec., NOR 42113, slip op. at 74; see also Otter Tail Power Co. v. BNSF Ry., NOR 42071, slip op. at 27 n.91 (served Jan. 27, 2006) (“We assume that Otter Tail intended to follow the approach described in the narrative.”) We recognize that there are instances where a party’s reliance on evidence submitted in workpapers has been found to be reasonable. See, e.g., Decision, slip op. at 57-58 (finding Sunbelt’s reliance on the number of IT employees listed in NS’s tables and workpapers trumped NS’s conflicting narrative discussion). But here, Sunbelt expressly argued on opening that the 1.5 conversion factor is standard and conservative and specifically distinguished it from the 1.325 conversion factor in the “Track Data Handbook.” (Sunbelt Opening III-F-23.) The Board had recently adopted a 1.5 conversion factor in another case, which supports Sunbelt’s statement that it wished to use the “standard” 1.5 conversion factor. See DuPont, slip op. at 187-89. In addition, NS reasonably relied on Sunbelt’s unambiguous narrative statements and did not have an opportunity to reply to Sunbelt’s rebuttal evidence. Accordingly, we will not reconsider the Board’s application of the 1.5 conversion factor. See DuPont, slip op. at 84 n.76; Duke/NS, 7 S.T.B. at 100-01.

ES4400 locomotive counts. Sunbelt argues that the Board should have corrected an error in NS’s ES4400 locomotive counts. (Sunbelt Pet. 21.) NS does not dispute that it miscalculated the ES4400 locomotive counts. (NS Reply 33, Sept. 9, 2014.) We will grant reconsideration and make the correction that Sunbelt requests.<sup>16</sup>

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<sup>16</sup> We note that the parties dispute the magnitude of the error. (Compare Sunbelt Pet. 21 (stating that the error amounts to ten percent of the ES4400 locomotive count) with NS Reply 33, Sept. 9, 2014 (stating that the error is less than six percent of the total count).) However, the

(continued . . .)

Roadbed earthwork quantities for intermodal/auto facilities. Sunbelt argues that the Board erred in the Decision by concluding that roadbed earthwork quantities should be calculated to include intermodal/auto facilities. (Sunbelt Pet. 21-22.)

On rebuttal, Sunbelt argued that NS's roadbed earthwork quantities for yards erroneously included quantities for the entire intermodal/auto facilities, rather than just for tracks. (Sunbelt Rebuttal III-F-35 to III-F-36.) Sunbelt claimed that "[a]ny excavation for non-track areas is included in the building and facility costs." (Id.) The Board rejected this argument on the ground that neither party had included any excavation costs for buildings and facilities, and therefore excavation of the non-track areas was not otherwise included. Decision, slip op. at 113. On reconsideration, Sunbelt argues that the absence of excavation costs for buildings and facilities means only that no excavation was required for the non-track areas. NS replies that Sunbelt did not provide any evidence that the excavation quantities are unnecessary. (NS Reply 33-34, Sept. 9, 2014.)

The Board did not err by rejecting Sunbelt's argument that the roadbed earthwork quantities for intermodal and auto facilities should have been limited to quantities for tracks. Rather, the Board assessed the argument Sunbelt made on rebuttal—that the quantities were included elsewhere<sup>17</sup>—and concluded that it was wrong. Decision, slip op. at 113. Sunbelt now makes a different argument—that the quantities should not be included at all because they are not necessary. Sunbelt cannot introduce a new argument on reconsideration and claim the Board erred by not considering that argument in an earlier decision. Simplified Standards for Rail Rate Cases, EP 646 (Sub-No. 1), slip op. at 13 (served Mar. 19, 2008) ("And new arguments that could have been presented earlier cannot be raised for the first time on reconsideration.")

Fine grading quantities. Sunbelt argues that the Board erred by failing to correct an issue with NS's fine grading quantities that Sunbelt identified on rebuttal. (Sunbelt Pet. 22-23.) Specifically, Sunbelt argued on rebuttal that NS used total miles for each valuation section rather than the miles that the SARR replaces, and that the Board should make an adjustment. (Sunbelt Rebuttal III-F-48 to III-F-49.) In its reply to Sunbelt's petition, NS argues that its fine grading evidence was the only evidence of record, and the Board therefore correctly accepted it. (NS Reply 34, Sept. 9, 2014.) NS also argues that if the Board finds that it did err, it should also make an additional correction resulting from an error in NS's workpapers that the Board relied upon in the Decision, which would result in a net increase to construction costs. (Id.)

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( . . . continued)

parties appear to agree that the total ES4400 locomotives should have been 34. (See Sunbelt Rebuttal III-C-108; NS Reply 33, Sept. 9, 2014.)

<sup>17</sup> See Sunbelt Rebuttal III-F-35 to III-F-36 ("Any excavation for non-track areas is included in the building and facility costs. Including non-track area quantities in yard track excavation quantities results in a double-count of excavation quantities.")

The Board materially erred by not adjusting NS's fine grading quantities to reflect the SARR's correct mileage. Sunbelt raised this issue at the appropriate time, see Decision, slip op. at 115, and provided sufficient guidance for the Board to make this relatively simple correction on its own. (See Sunbelt Rebuttal III-F-48 to III-F-49.) Although Sunbelt's own evidence on the fine grading calculation was not accepted,<sup>18</sup> the Board could have corrected the error in NS's method, as the Board has the authority to "reasonably appl[y] its own expertise to fill a minor gap in the record." BNSF Ry. Co. v. S.T.B., 453 F.3d at 485. We will not, however, consider NS's request to correct the error it identified regarding its fine grading evidence. The error that NS claims occurred in its workpapers could have been raised by NS in its own petition for reconsideration or in the petition for technical corrections. But by raising this argument for the first time in its reply to Sunbelt's petition for reconsideration, NS denied Sunbelt the opportunity to reply.

Railcar acquisition costs. The SARR's railcar acquisition costs depend on the volume of railcars estimated to be on the system. The number of railcars on the system depends, in part, on the peaking factor (which reflects the peak traffic volume in the peak week of the peak year) and the dwell times (which show the amount of time railcars sit idle at various points on the system). For the calculation of railcar acquisition costs, the Board used a peaking factor of 15.1%, which was proposed by Sunbelt on opening and accepted by NS on reply; Sunbelt's rebuttal in-transit dwell time; and a customer dwell time that was proposed by Sunbelt on opening and accepted by NS on reply. See Decision, slip op. at 39-40; Board WP "SBRR Car Costs stb.xlsx." Sunbelt argues that the Board erred by using the peaking factor and dwell times for the calculation of these costs from its opening evidence, rather than revised figures that it submitted on rebuttal. (Sunbelt Pet. 23.) NS argues that the Board correctly applied the dwell times and peaking factor it accepted in its decision. (NS Reply 35-36, Sept. 9, 2014.)

We will not reconsider the Board's calculation of railcar acquisition costs. The Decision already accepted Sunbelt's rebuttal evidence for in-transit dwell times. Decision, slip op. at 40 ("only that portion of car dwell hours that are associated with system cars"). With respect to customer dwell times and the applicable peaking factor, we declined to accept Sunbelt's rebuttal evidence because NS had already agreed to Sunbelt's opening proposals for those inputs. A complainant "may not make changes on rebuttal when defendants have accepted the opening submission and did not have an opportunity to reply to those changes." Ariz. Elec., NOR 42113, slip op. at 113; see also Duke/NS, 7 S.T.B. at 100-01. Therefore, the Board did not err in the calculation of railcar acquisition costs.

Mismatching earthwork preparation spreadsheets. Sunbelt argues that the Board's calculations of final roadbed preparation values do not properly reflect certain aspects of the Board's decision (for example, the Board's decision to accept NS's set-out track miles) because the Board allegedly failed to properly implement its decisions in the spreadsheets used to do the

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<sup>18</sup> We note that Sunbelt claims its Trestle Hollow earthwork unit cost included fine grading. But in this decision we decline to reconsider the Board's decision not to accept that evidence.

calculations. (Sunbelt Pet. 24.) Although Sunbelt’s proposed changes would be favorable to NS, NS replies that the Board should deny reconsideration on this issue because, given the complexity of the evidence in a SAC case, it is not feasible for the Board to attempt to reflect all possible “residual downstream effects” of the many decisions it makes in the course of such proceedings. (NS Reply 37-38, Sept. 9, 2014.)

The Board did not materially err in the earthwork preparation spreadsheet calculations. As NS recognizes, parties to rate cases “submit voluminous and complex evidence with thousands of inter-connected calculations, spreadsheets, and data inputs.” (*Id.* at 37.) Under Sunbelt’s proposal, the Board would need to make every downstream change resulting from each one of the hundreds of decisions in a SAC case—and those changes would have compound effects, resulting in another set of downstream changes, and another.<sup>19</sup> Under these circumstances, where the impact on the outcome would be minor, we will not reconsider the earthwork preparation calculations.

Elimination of undercutting, over-excavation, and gabion excavation costs. Sunbelt argues that while the Board rejected NS’s proposed quantities and costs for undercutting, over-excavation, and gabion foundation excavation, the Board deleted the associated costs from its workpapers, but failed to delete the quantities. (Sunbelt Pet. 25.) Sunbelt claims that these quantities affect other calculations and asks the Board to reconsider by deleting the quantities. NS replies that the Board cannot account for all downstream effects of its ruling and should deny reconsideration. (NS Reply 38, Sept. 9, 2014.)

We will reconsider this issue and revise the workpapers to reflect no quantities for the relevant items. The issue here is not downstream effects or unlinked spreadsheets, but simply that the Board failed to put an input into its workpapers based on its decision to reject these quantities. We will do so now.

Distance for offline haul of ballast. Sunbelt argues that the Board did not properly apply the distance it accepted for the offline haul of ballast in the Board’s workpapers. (Sunbelt Pet. 25.) This issue is moot given our decision, discussed later in this decision, to grant NS’s request that we reconsider the distance for the offline haul of ballast we previously accepted.

Rail lubricator unit cost. Sunbelt argues that the Board materially erred by using an incorrectly indexed unit cost for rail lubricators. (Sunbelt Pet. 25-26.) The Board accepted the parties’ agreement to use Sunbelt’s rail lubricator unit cost with additional costs for shipping and

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<sup>19</sup> Moreover, as Sunbelt points out, the Board used the parties’ own spreadsheets to create its workpapers calculating the final earthwork preparation values, and those spreadsheets—at the time the evidence was submitted—should have been linked to allow changes in one spreadsheet to be incorporated into others. However, those spreadsheets lacked appropriate working links. See General Procedures for Presenting Evidence in Stand-Alone Rate Cases, EP 347 (Sub-No. 3), slip op. at 4-5 (STB served Mar. 12, 2001) (“[e]mphasiz[ing] the importance of spreadsheet links being functional and documented”).

other items added by NS. Decision, slip op. at 136. Sunbelt argues that there are two places in NS's workpapers where the rail lubricator unit cost is stated, but they are indexed differently, and the Board used the one that is incorrectly indexed. Specifically, Sunbelt argues that the unit cost that NS used to calculate overall rail lubricator costs contains an indexing error that originated in Sunbelt's opening unit cost, but NS's track construction spreadsheet contains the correct rail lubricator unit cost. (Sunbelt Pet. 25-26.) Sunbelt claims that the Board used the uncorrected unit cost in its spreadsheets, but it should have used the corrected unit cost. Id. NS replies that the Board used the cost to which the parties agreed and that Sunbelt should have identified the issue on rebuttal. (NS Reply 39, Sept. 9, 2014.)

The Board did not materially err regarding the rail lubricator unit cost, and we will not reconsider this unit cost. The mistake here originated with Sunbelt's opening unit cost (Sunbelt Pet. 26), which NS accepted. Although Sunbelt had the opportunity to address its mistake on rebuttal, it did not do so. The Board simply used the parties' agreed-upon unit cost. Because Sunbelt failed to timely identify the inconsistency between the amounts in NS's workpapers on rebuttal, the Board did not err by accepting the agreed upon costs.

Index for unit costs. Sunbelt notes that while the Board substituted the Means historical index factors for the Rail Cost Recovery factors used to index unit costs for track construction in some places, it did not do so consistently. (Id.) Sunbelt asks the Board to reconsider and use Means to index all relevant costs for track construction. NS argues that the Board should not reconsider, noting that the text of the Decision did not address the cost index issue. (NS Reply 39-40, Sept. 9, 2014.)

We will reconsider and use the Means index for track construction as Sunbelt requests. The Means index has been used consistently in prior cases to index unit costs. See, e.g., Xcel 2004, 7 S.T.B. at 616. Despite the inconsistencies in the Board's workpapers to the Decision, the Board intended to use the Means index for track construction unit costs. As neither party addressed the unit cost index issue in their evidentiary narratives, the Board should not have departed from established practice without explanation. See Ariz. Elec. Power Coop., NOR 42113, slip op. at 33 (noting that a party that wishes to depart from established precedent carries the burden on that issue).

Positive Train Control (PTC) labor costs. The parties disagreed regarding the feasibility of installing a PTC system that would be available at the outset of the SBRR's operations. Sunbelt claimed that a PTC system could be fully installed by 2011, the first year of the SBRR's operations, while NS claimed that this would not be possible, given the lack of PTC components in existence at that time and so the SBRR should start with a Centralized Traffic Control system and have a PTC system installed later, by the end of 2015. Decision, slip op. at 144-45. The Board did not accept the entire position of either party, but instead concluded that the evidence showed an initial PTC system could be installed by 2011 and later updated to meet the 2015 standards of the Rail Safety Improvement Act of 2008 (RSIA), with upgrade costs spread throughout the 2011 to 2015 time period. Id. at 145. Accordingly, the Board accepted Sunbelt's associated labor cost based on an initial PTC installation in 2011. Id. at 146.

In its petition for reconsideration, Sunbelt claims that the Board failed to implement this determination in its workpapers, resulting in an overstatement of costs. (Sunbelt Pet. 26.) NS argues for reconsideration of the Board’s PTC approach in general, and that Sunbelt’s argument assumes that the Board’s workpapers fully accounted for PTC labor costs, although NS claims the workpapers failed to do so.<sup>20</sup> (NS Reply 40-41, Sept. 9, 2014.)

We will reconsider the decision regarding PTC labor costs and make the adjustment that Sunbelt requests in order to properly implement the Board’s decision. The Board previously stated that, “[g]iven that we are holding that the SBRR could have a PTC system installed during its construction, we will use Sunbelt’s labor costs.” Decision, slip op. at 146. Although NS claims that the Board’s workpapers did not account for any PTC labor costs, NS is mistaken, as the workpapers included the costs to the extent the parties did so.<sup>21</sup> And, as we explain in our discussion of NS’s petition for reconsideration raising related issues, the Board’s decision was appropriate given the available evidence.

Bonus depreciation in 2012 and 2013 PTC investment. The parties disagreed as to the applicability of bonus depreciation provisions enacted as part of federal economic stimulus efforts.<sup>22</sup> (See Sunbelt Rebuttal III-H-15.) The Board agreed with Sunbelt and accepted the application of tax laws allowing bonus depreciation to the SARR where applicable. Decision, slip op. at 188-189. Sunbelt argues that the Board should have also applied this decision accepting the use of bonus depreciation to PTC upgrade investment costs that the SARR incurs in 2012 and 2013. (Sunbelt Pet. 27.) NS argues that the Board should deny reconsideration. (NS Reply 42, Sept. 9, 2014.)

The Board did not err by declining to apply bonus depreciation to PTC upgrade investment costs. Bonus depreciation applies when the assets are put into service. (Sunbelt Opening III-H-6.) While the SARR would spend money to upgrade the PTC system in 2012 and 2013, in this case Sunbelt has presented no evidence or argument justifying a conclusion that these upgrades would be “put into service” sooner than the point at which the finished product (a PTC system that is compliant with RSIA) would be ready in 2015. Therefore, bonus depreciation would not apply to PTC investment costs incurred in 2012 and 2013. We will not reconsider this aspect of the Board’s decision.

Updating indices and forecasts. In its petition for reconsideration, Sunbelt claims that the Board “routinely” updates indices and forecasts in its final decisions and also its reconsideration

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<sup>20</sup> NS also argues this in its own petition for reconsideration. (NS Pet. 31-32.)

<sup>21</sup> See Board workpaper “No.2 – STB – Sunbelt C&S Estimate NS Reply.xls” sheet “Reply Components & Tabulation” at cells N76 to NI79. We note that the parties included PTC labor costs only for certain aspects of PTC. See *id.*

<sup>22</sup> Sunbelt claims bonus depreciation under the Economic Stimulus Act of 2008, the American Reinvestment and Recovery Act of 2009, and the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. (Sunbelt Rebuttal III-H-5.)

decisions, and that the Board therefore erred in updating the Energy Information Agency's (EIA) Annual Energy Outlook (AEO) West Texas Intermediate (WTI) fuel price forecast in the underlying decision but not all of the other related and dependent forecasts. (Sunbelt Pet. 27-29.) In particular, Sunbelt asserts that while the WTI fuel price forecast model "uses Short-Term Energy Outlook (STEO) prices for forecast periods where they are available and then applies annual changes from the AEO forecast" (*id.* at 28), the Board only updated the AEO forecast and not the STEO forecast. Sunbelt argues that the "Board may correct this error either by not updating the AEO forecast at all . . . or by updating all of the related and dependent forecasts." (*Id.* at 29.)

NS replies that Sunbelt's demand for expansive revisions of indices and forecasts used by the parties should be rejected. (NS Reply 43-47, Sept. 9, 2014.) NS notes that with the exception of using the publicly available and policy-neutral AEO forecasts, the Board does not "routinely" adopt new indices or forecasts after the evidentiary record is closed. NS concludes that Sunbelt is confusing "updating of forecasts" (which it argues the Board does not do) with the substitution of actual data for prior forecasts once the actual data has become available (which it argues the Board does do). NS argues that "finality and efficient decision making require that the evidence not be subject to continuing revision after the record has closed." (*Id.* at 43.) NS claims that Sunbelt has failed to allege that there has been a significant change in the forecasts it has asked the Board to update.

The updating of indices and forecasts is an area that has received varying treatment in past Board decisions. Compare *Ariz. Elec.*, NOR 42113, slip op. at 22 (updating EIA rate and volume forecasts for coal shipments that changed significantly), with *AEP Tex.*, NOR 41191, slip op. at 32 n.57 (STB served Sept. 10, 2007) (declining to update EIA data with more recent forecasts that did not change significantly). As a general rule, forecasts are continually shifting, and implementing changes can create moving and confusing targets. Attempting to use only the most recent data available, even data released after the close of the evidentiary record, can unreasonably and unnecessarily delay the issuance of a decision as the Board's staff works to integrate the new data into the SAC model. These efforts to incorporate ever more recent data must be balanced against the need for the Board to bring rate case proceedings to a conclusion. See *BNSF Ry. v. STB*, 453 F.3d at 482. In general, the Board has employed a practice of updating forecasts only in situations where more recent forecasts demonstrate a markedly different trend than the earlier forecasts in the record. *Ariz. Elec.*, NOR 42113, slip op. at 22. In this instance, however, the Board should not have updated the AEO WTI forecast included in its SAC analysis after the close of the record given that there was no such markedly different trend. As demonstrated by Sunbelt's submission, (Sunbelt Pet. Ex. 4), there was no long-term shift in the "WTI Price Forecast" to justify updating those numbers. Accordingly, when the Board reruns its SAC analysis to reflect other changes resulting from this reconsideration decision, it will also undo its previous updates to the AEO WTI fuel price forecast. For consistency, we are also making revisions to the NS files used for the calculation of revenues, as those files also use the AEO forecasts and had been updated by the Board. The Board is now using the 2013 version of the AEO data in the revenue files to match everything else, including the AEO WTI fuel price forecast.

In addition, Sunbelt suggests that the Board should consider updating certain select indices and forecasts for the period of time between the final decision on the merits and the reconsideration decision, regardless of whether there has been a significant change. (Sunbelt Pet. 27.) As with updates between the close of the evidentiary record and the final decision on the merits, there has been varying treatment by the Board with regard to updating indices and forecasts following a final decision on the merits. See, e.g., Duke Energy Corp. v. Norfolk S. Ry., 7 S.T.B. 862, 878-79 (2004); Ariz. Pub. Service Co. v. Burlington N. & Santa Fe Ry., 7 S.T.B. 1021 (2004); W. Fuels Ass'n Inc. v. BNSF Ry., NOR 42088 (served June 15, 2012). It is not in dispute that indices and forecasts, by their very nature, will almost always fail to match exactly with prior estimates. Under Sunbelt's proposal, we would need to recalculate the cumulative difference between all the revenues and costs in our SAC analysis to account for changes, regardless of their magnitude, between issuance of our final decision and the reconsideration decision. See Ariz. Pub. Serv. Co. v. Atchison, Topeka & Santa Fe Ry., 3 S.T.B. 70, 74-75 (1998) (articulating a similar concern with updating indices and forecasts on reopening).

When a party asks to update indices and forecasts on reconsideration, we must strike the appropriate balance between the interests of fairness to all the parties and of administrative finality and repose. In striking this balance, we will consider not only the magnitude of the changes identified by the parties, but also the cause and duration of the discrepancies before deciding whether they warrant updating on a petition for reconsideration. The types of significant changes that may warrant updating involve important long-term shifts in indices and forecasts, not short-term, period-to-period fluctuations that do not undermine our long-term projections. Moreover, rather than updating a select handful of indices and forecasts identified by a party, the Board must consider "other economic conditions that were unforeseen when the . . . projections were made." Tex. Mun. Power Agency v. BNSF Ry., NOR 42056, slip op. at 2-3 (STB served July 27, 2011); Western Fuels Assoc. v. BNSF Ry., NOR 42088, slip op. at 17 (STB served Sept. 10, 2007) ("To reopen the record only on the issue of fuel surcharges, without permitting broader discovery into changes in rates and volume, could bias our analysis.").

In this case, Sunbelt has failed to argue that there have been any significant long-term changes in the relevant indices and forecasts subsequent to the Board's final decision. Sunbelt has targeted an isolated subset of indices and forecasts without consideration of the other economic factors at work in this case.<sup>23</sup> Accordingly, we will not update based on post-Decision forecasts and indices. Going forward, either party has the option of filing a petition to reopen,

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<sup>23</sup> In addition, Sunbelt does not articulate a rational basis for updating certain forecasts that were only used for part of the analysis period, while leaving other forecasts unchanged. Compare Decision, slip op. at 170-71 (using railroad internal coal forecasts for 2012-2016) with Sunbelt Pet. Ex. 4 (identifying EIA Coal Production Forecasts for 2013-2021).

should they wish to argue that there has been a significant long-term shift in any of the underlying indices and forecasts in the Board's final decision.<sup>24</sup>

### **NS Petition for Reconsideration**

Ballast transportation evidence. NS argues that the Board erred by rejecting NS's evidence regarding the offline transportation distance for ballast, which is the distance ballast will need to be transported between quarries and railheads. (NS Pet. 5-6.) In the Decision, slip op. at 131, the Board rejected NS's approach of using an average of the distances from the quarries to the SBRR's railheads, on the ground that NS had only used distances to the railhead at Birmingham. However, NS argues and Sunbelt concedes that NS's average included distances to all four SBRR railheads (not just the one at Birmingham). (Sunbelt Reply 5-6.) Given that NS's methodology properly included the average of all the distances, we conclude that the Board erred by rejecting NS's evidence. However, as Sunbelt points out, NS's calculation of the average of the distances between the six quarries that would serve the SBRR and the four railheads is incorrect, and the actual average distance is 329.55 miles rather than the 349.9 miles proposed by NS. We will therefore reconsider and accept NS's proposed methodology, but we will apply the further correction proposed by Sunbelt and use the 329.55 mile distance.

Catastrophic insurance coverage. The Board declined to include a premium for catastrophic insurance coverage, reasoning that NS had not supported its claim that the SBRR would have a higher risk of catastrophic toxic inhalation hazard (TIH) release than other railroads and that NS's method of calculating the premium was not tied to the SBRR's allegedly higher risk. Decision, slip op. at 21. NS asks the Board to reconsider this conclusion and include the premium in the SBRR's insurance rates. (NS Pet. 6-9.) NS argues that the Board should have accepted NS's evidence because Sunbelt offered no alternative evidence of catastrophic coverage, and because NS conservatively based its evidence on its own insurance costs and scaled them down as appropriate for the SBRR. NS argues that, contrary to the Board's conclusions, it supported its claim that its insurance premium for catastrophic coverage is "almost entirely attributable to high-risk TIH traffic" like the traffic the SBRR would carry. (Id. at 8-9.) NS also claims that the Board's reasoning that factors other than the SBRR's ratio of TIH traffic to total traffic could contribute to the risk of a TIH release was in error. Rather, according to NS, the only significant difference between the SBRR and the real-world NS is that the SBRR would carry a higher proportion of TIH carloads, resulting in a higher risk that any particular derailed car would be carrying TIH materials. (Id. at 9.) Sunbelt replies that NS did not support its claim that NS's insurance premium level is primarily based on TIH traffic and that NS misrepresents the Board's reasons for not accepting NS's proposal. (Sunbelt Reply 6-9.)

The Board did not err by declining to accept NS's proposed catastrophic insurance premium. The Board explained that NS did not support either its claim that the SBRR would

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<sup>24</sup> Because we conclude that this is the best approach with regard to updating forecasts and indices after the close of the evidentiary record (including post-Decision), we expressly decline to follow prior cases that may suggest a different approach.

have higher risks than other railroads or its method of calculating its proposed premium. Decision, slip op. at 21. The Board may decline to accept unsupported proposals, even if the opposing party offers no evidence of its own alternative proposal. See Ariz. Elec., NOR 42113, slip op. at 85 (declining to accept railroads' cost when, although the railroads had shown some undercutting would be appropriate, the cost they proposed was unsupported).

First, as the Board explained in the Decision, slip op. at 21, NS did not support its claim that its real-world premium, on which it bases its proposed premium for the SBRR, is primarily attributable to TIH traffic. In its petition for reconsideration, NS argues that the Board ignored a workpaper that it included on reply and which NS argues supports its claim that its higher insurance premium is attributable to the handling of TIH. (NS Pet. 8.). However, that workpaper merely contains an interrogatory response from NS showing different insurance tiers and a list of NS's insurance carriers at each tier level. Moreover, in the interrogatory response, NS states that "nearly all of the liability above \$200 million can be attributed to its handling of TIH," but immediately before that, it also states that it "does not break out its liability for chlorine and other TIH materials from other materials or potential incidents." (NS Reply workpaper "NS Response to INT 23.pdf.") Accordingly, the document provides no support for the assertion that NS's liability is primarily attributable to TIH. Thus, NS has not supported its assertion that its own premium was a sufficient basis for an SBRR premium.

In addition, NS takes issue with the Board's reference to petroleum products<sup>25</sup> as an example of another factor that can affect a railroad's risk of catastrophic events, but the conclusion that non-TIH materials can contribute to catastrophic events is, as Sunbelt points out, supported by NS's own reference to an accident involving butadiene, a petroleum (non-TIH) product. (Sunbelt Rebuttal III-D-49 to III-D-50, citing NS Reply III-D-233, Jan. 7, 2013.)

Second, the Board explained that the proportion of TIH traffic a SARR carries is not the only factor that may contribute to the level of risk of catastrophic events: "[o]ther factors may contribute to a particular carrier's risk of a catastrophic TIH release, including the landscape over which the carrier operates, the population density on the route traveled, the volume of other traffic on the line, the complexity of overall operations, and the amount of traffic and congestion in yards, among others." Decision, slip op. at 21. Because the SBRR differs from the real-world NS in size and other characteristics, NS needed to do more than simply propose a premium for the SARR based on NS's own experience. We will not reconsider the Board's decision.

Lake Pontchartrain Rip-Rap Costs. The Board denied NS's request that the SARR's costs include the construction of a rip-rap berm along Lake Pontchartrain, reasoning that NS had not produced requested, relevant information during discovery and then attempted to use the

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<sup>25</sup> NS also objects to the Board's reference to passenger trains as a factor that could cause NS to have higher liability than SBRR, noting that a federal statute limits awards to rail passengers to \$200 million. See 49 U.S.C. § 28103(a)(2). However, even if NS's position is that passenger traffic does not contribute at all to its insurance premium, this is not material because, as explained above, we conclude that NS's proposal was unsupported regardless.

unproduced information to support its arguments on reply. Decision, slip op. at 125. NS now asks the Board to reconsider its decision to exclude the rip-rap construction costs. (NS Pet. 10-13.) NS argues that its response to Sunbelt's discovery request was consistent with the parties' discovery agreements and did not withhold any requested information regarding the Lake Pontchartrain rip-rap berm. NS argues that the study it relied on in its reply evidence was prepared in response to Sunbelt's opening evidence, and therefore was not available to produce in discovery. Sunbelt responds that NS misrepresents Sunbelt's discovery requests and the parties' agreement regarding discovery, and that NS should have provided the information in discovery. (Sunbelt Reply 9-10.) Sunbelt also claims that NS refused to perform such a study in response to Sunbelt's discovery request, but then later unfairly performed the study and relied on it as evidence on reply. (Id. at 10.) Finally, Sunbelt argues that NS's claims regarding the need for and characteristics of the Lake Pontchartrain rip-rap berm have no merit. (Id. at 11.)

The Board materially erred in its decision to exclude the Lake Pontchartrain rip-rap berm costs. As NS explains, there was no discovery violation because the study was done in response to Sunbelt's opening evidence, and a study that did not exist at the time of discovery could not have been produced in discovery. In addition, even if NS did not perform a special study, which NS was not obligated to perform, in response to Sunbelt's request, NS did submit it as part of its reply, meaning Sunbelt had the opportunity to it on rebuttal. Therefore, it was error to exclude NS's Lake Pontchartrain rip-rap evidence, and we must consider whether NS's evidence supports inclusion of the berm.

Sunbelt argues that there is no evidence that the berm was included in the original construction of the line that runs alongside Lake Pontchartrain and therefore the Board should not accept the costs. (Id. at 11; Sunbelt Rebuttal III-F-69.) However, the Board does not limit acceptable costs to those incurred during original construction, so long as a party can show that costs incurred after the original construction are supported. See Xcel 2004, 7 S.T.B. at 674, 689-90 (accepting costs related to daylighting, or extensive excavating, of tunnel and the construction of a cross-over bridge after construction of the line.) Here, Sunbelt claims that these costs are not supported because NS has not provided evidence of washouts or other evidence showing the necessity of the berm. (Sunbelt Reply 11; Sunbelt Rebuttal III-F-69). However, NS provided photographs showing the track's location close to the water and noted that the area at issue is prone to hurricane and tropical storm activity. (NS Reply III-F-116 to III-F-117, Jan. 7, 2013; NS Reply WP folder "Rip Rap Barrier.") Therefore, NS provided evidence supporting the need for the berm, and Sunbelt has not undermined the feasibility or support of that evidence.

Sunbelt also argues that NS did not support the length and height of the berm it proposed and that the berm could not be solid rip rap, but rather must be rip rap over earth, because photographs show vegetation growing on the berm. (Sunbelt Reply 11; Sunbelt Rebuttal III-F-69). However, NS submitted evidence based on an expert examination of the berm. (See NS Reply III-F-117, Jan. 7, 2013). Sunbelt did not submit any alternative evidence of the size of the berm or any evidence that vegetation could not grow on solid rip rap. We therefore will reconsider the Board's decision and accept the costs for the Lake Pontchartrain berm.

Cost of equity. Equity flotation costs represent a separate cost for "floating" or marketing shares in a public offering of common stock. NS asks the Board to reconsider its

decision to not adopt NS's proposed equity flotation cost for the SARR. (NS Pet. 13-15.) NS argues that because the Board acknowledged that the SBRR would incur equity flotation costs (the costs of marketing the shares that the SBRR would offer to raise approximately \$1.9 billion in equity<sup>26</sup>) and because NS's proposed equity flotation cost was the only fully supported evidence of record, the Board erred by declining to accept the cost it proposed. (*Id.*) NS argues that the 2.1% fee that it proposed is conservative because equity flotation fees typically range between 2% and 7% and because the equity flotation fee was 3.9% for the most recent instance of a railroad issuing a large amount of common stock. (*Id.* at 14.) NS claims that the Board's conclusion that the recent Facebook initial public offering (IPO), on which NS based its proposed fee (NS Reply III-G-4, Jan. 7, 2013), was not sufficiently comparable to an SBRR IPO ignores the characteristics of the SBRR that would likely lead to higher equity flotation costs for the SBRR. (NS Pet. 15.) NS argues that, in any event, the Board cannot expect a defendant to offer evidence of an equity flotation fee from an offering by a railroad of a comparable size to a SARR, as such evidence does not exist. (*Id.*) Instead, NS claims, the Board should accept the best available evidence, which NS provided in this proceeding.

Sunbelt replies that the Board did not err by declining to apply NS's proposed equity flotation cost. (Sunbelt Reply 12-18.) Sunbelt argues that precedent does not require the Board to accept a party's proposal merely because it is the only evidence of record, but that the evidence must also be supported. (*Id.* at 12-13.) Citing *Xcel 2004*, 7 S.T.B. at 671, and other Board decisions, Sunbelt claims that where a proposal is contrary to precedent, the burden is on the party proposing the departure from precedent, and Sunbelt therefore had no duty to offer alternative evidence. (Sunbelt Reply 14.)

Sunbelt also argues that NS's proposed cost was not conservative and the Board properly rejected it for lack of support. (*Id.* at 14-18.) First, Sunbelt claims that NS's evidence that costs are usually between 2% and 7% is outdated, and more recent academic research shows that equity flotation costs have fallen. (*Id.* at 15-16.) Second, Sunbelt claims that the 3.9% fee for the most recent railroad IPO, the 1991 Burlington Northern Inc. (BN) issuance, does not support NS's claim that its 2.1% proposal is conservative. Sunbelt points out that the SBRR would seek six times as much equity as BN sought in its offering, and that NS itself has acknowledged that fees are related to the size of the offering. (*Id.* at 16.)

We conclude that the Board materially erred by not accepting NS's proposed equity flotation cost. The Board concluded in the *Decision* that "it would be unreasonable to assume that the SARR would raise the . . . necessary capital without paying some form of equity flotation fee." *Decision*, slip op. at 184. In light of this conclusion—that some equity flotation fee was proper—the Board's assessment of NS's evidence supporting a 2.1% fee was overly critical. The ideal evidence would be the equity flotation fee in a recent railroad IPO of comparable size, but as NS notes, such evidence does not exist. Therefore, in the absence of an

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<sup>26</sup> There is some disagreement between the parties about how much equity the SBRR would need to raise. The \$1.9 billion figure is derived from the Board's workpapers developed for this reconsideration decision.

alternative proposal by Sunbelt, the Board should have accepted NS's proposal, which was supported by reliable evidence.

Sunbelt is correct that the proponent of a new cost or methodology has the burden to justify the departure. See, e.g., Ariz. Elec., NOR 42113, slip op. at 33, Xcel 2004, 7 S.T.B. at 671. And while it is true that, in some previous cases, the Board has concluded that equity flotation costs should not be included (at least as a separate cost) if it is already accounted for in the cost of capital, e.g., Duke Energy Corp. v. CSX Transportation, Inc., 7 S.T.B. 402, 433 (2004), more recently, the Board has signaled that it could be open to including equity flotation costs, depending on the evidence presented in support of the proposed costs. See Ariz. Elec., NOR 42113, slip op. at 138. Here, NS did present a justification for departing from precedent and including this cost. Specifically, NS pointed out that the eligible Class I railroads have not issued new shares of equity in recent years, and therefore, equity flotation costs have not been included in the Board's 2006 through 2011 railroad industrywide cost-of-capital determinations. (See NS Reply III-G-3, Jan. 7, 2013.) The Board accepted that justification, holding that equity flotation costs may be included if there is adequate evidentiary support for the proposed costs. See Decision, slip op. at 184. Thus, the question was whether NS supported its proposed equity flotation costs with appropriate evidence. As discussed below, we now find that NS provided sufficient evidence to support its proposed equity flotation costs and that Sunbelt did not provide any evidence of lower costs.<sup>27</sup>

The Board's criticisms of NS's supporting evidence were unwarranted under the circumstances. NS provided evidence that showed its proposed fee is indeed conservative, with adequate support for its argument that equity flotation fees typically range between 2% and 7%. (See NS Reply WP "III-G Cost of Raising Capital.pdf" (Inmoo Lee et al., The Costs of Raising Capital, 20 J. Fin. Res. 59 (Spring 1996)).) Sunbelt argues that NS's evidence on the range of fees is outdated and that fees have recently fallen, but the sources Sunbelt cites do not support a conclusion that fees have generally fallen below the 2.1% proposed by NS.<sup>28</sup> Even an article cited by Sunbelt showing gross spreads (another term for equity flotation fees) by year from 1980 to 1998 shows that the lowest mean gross spread for any year is 5.87%.<sup>29</sup> Thus, although

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<sup>27</sup> See McCarty Farms, 2 S.T.B. at 496 (accepting railroad personnel expense proposal when complainant did not support its estimate and railroad proposal was based on real-world, documented data); Bituminous Coal—Hiawatha, Utah, to Moapa, Nev. (Nevada Power), 6 I.C.C.2d 1, 55, 62 (1989) (accepting railroad proposals as the only evidence of record for (1) service lives and salvage values taken from an Interstate Commerce Commission report and for (2) joint facility cost based on actual railroad costs).

<sup>28</sup> We note that the articles cited by Sunbelt are new evidence that is identified for the first time in reply to NS's petition, which we typically will not consider. (Sunbelt Reply 16 nn.16 & 17.) In any event, as discussed below, the articles do not support Sunbelt's position.

<sup>29</sup> Mukesh Bajaj et al., Competition in IPO Underwriting: Times Series Evidence, 24 Res. Fin. 1, 13 (2008). In addition, while the article shows that fees were below 2% in two instances, these were the absolute minimum fees for just two years of the 18 years in the study.

the article concludes that a general trend of decreasing fees occurred over the time period examined, it does not disprove NS's claim that its 2.1% proposal is conservative. The other article cited by Sunbelt also suggests that a general trend of decreasing fees occurred during the period examined (1980-2000), but it, too, fails to support a claim that 2.1% is not conservative.<sup>30</sup> Although Sunbelt claims NS relied on an outdated academic paper, the academic sources cited by Sunbelt did not look at years that were significantly more recent than those in NS's source. Compare Bajaj at 13 (considering 1980-1998); Loughran (considering 1980-2000) with Lee at 59 (considering 1990-1994).

In further support of its claim that it used a conservative figure, NS argues that its 2.1% fee is lower than the fee paid in the last railroad stock offering, the 1991 BN offering, which was 3.9%. Sunbelt claims that this is not a valid comparison because the BN offering was significantly smaller than the SBRR's offering. (Sunbelt Reply 17.) However, Sunbelt itself estimates that the cost for the BN offering would have been about 3%, thus indicating that NS's 2.1% figure is still conservative.

Finally, we find that the Facebook IPO, while not a perfect comparison to the SBRR's offering, provides relevant evidence, particularly in light of NS's argument that the SBRR fee would likely be higher than the Facebook fee. In the Decision, the Board found that the Facebook offering was too different to provide a comparison to the SBRR offering, noting differences between the sizes of the offerings and the industries and that NS had not provided evidence that the two companies would have similar credit ratings. Decision, slip op. at 185. Although these criticisms were consistent with Board precedent, see Ariz. Elec., NOR 42113, slip op. at 137-38 (stating that the proponent of an equity flotation cost would have to provide evidence of the existence and size of fees for stock issuances of a similar size as that needed by the SARR), we now conclude that those requirements were too stringent, as they would effectively prevent acceptance of any equity flotation fee (despite the Board's conclusion that the SARR would incur such a cost). As NS argued, the SBRR offering would likely be the riskier of the two offerings, and therefore have higher equity flotation fees. See Inmoo Lee et al., The Costs of Raising Capital, 19 J. Fin. Res. 59 (1996). Further, while the Facebook IPO was much larger than the SBRR's IPO would be, both are very large IPOs, and Sunbelt does not point to a

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<sup>30</sup> See Tim Loughran & Jay R. Ritter, Why Has IPO Underpricing Changed Over Time?, Fin. Mgmt. (Autumn 2004). The article discusses why IPO underpricing increased from 1980 to 2000 despite resulting in lower gross spreads earned by the underwriter. Id. at 3. The article argues that underpricing increases income to underwriters in other ways, and therefore they are willing to forgo the income from gross spreads. Id. at 2-3. However, while the article refers to 7% as being a "typical" gross spread for a moderate-sized IPO, id. at 4, the article does not present comprehensive information on trends in gross spread percentages. Therefore, while the article provides a hypothesis that addresses any downward trend in equity flotation costs, it does not provide a basis to conclude that 2.1% is not a conservative cost for the SBRR offering, particularly if 7% is "typical."

better comparison.<sup>31</sup> Therefore, the Facebook IPO provides additional evidence supporting a conclusion that the 2.1% fee is conservative. Taking into consideration all the evidence provided by NS, we will reconsider the Board's decision and apply an equity flotation fee of 2.1%.

Rail transportation costs. During the case, the parties agreed to the price of rail, but disagreed as to the cost for the transportation of that rail from the manufacturer to the SARR's railheads. Decision, slip op. at 134. Sunbelt proposed to use the cost from NS's 2010 R-1 Report.<sup>32</sup> NS argued that cost did not fully account for transportation of rail over foreign lines (i.e., lines other than the SBRR's own lines), and that here, much of the transportation of the SARR's rail would be over foreign lines; particularly, over the residual NS. NS therefore argued that the Board should add an additional amount (the "additive") to Sunbelt's proposal to account for foreign transportation of rail. The Board rejected NS's arguments because it had not shown that Sunbelt's proposed cost failed to include foreign transportation. Decision, slip op. at 134. In particular, the Board found that "it remains possible that the system-wide costs in NS's R-1 include other transportation of rail, in other parts of the country that moves significant distances over foreign lines." Id. Accordingly, the Board concluded that NS's approach could duplicate costs already accounted for by Sunbelt. The Board therefore accepted Sunbelt's proposed costs for the transportation of rail.

NS argues that the Board should have included its proposed additive for the transportation of rail. (NS Pet. 15-18.) NS continues to argue that the Board failed to include the cost for the SBRR to transport the rail from the supplier, over the residual NS, to the Sunbelt railhead, on the basis that this cost is not included in NS's R-1. NS also claims that, under Board precedent,<sup>33</sup> the SBRR would not be permitted to transport rail over its own yet-unbuilt system. Accordingly, NS disagrees with Sunbelt's claim that NS's additive approach would double-count foreign transportation costs, arguing that NS is merely proposing to account for both the transportation costs over the residual NS and other foreign carriers' lines (while Sunbelt's approach only accounts for the former). NS claims that the Board should therefore have accepted its additive as the only evidence that includes all the necessary transportation costs. (NS Pet. 18 (citing Duke/NS, 7 S.T.B. at 161; McCarty Farms, 2 S.T.B. at 496, Nevada Power, 6 I.C.C.2d at 55, 62).)

Sunbelt argues that the Board did not err. (Sunbelt Reply 18-19.) Sunbelt points out that the Board did not disregard NS's argument, but simply rejected it. Moreover, Sunbelt argues that it offered evidence that included foreign transportation costs.

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<sup>31</sup> Sunbelt argues that the BN offering is too small to be a good comparison and that the Facebook offering is too large. While it is true that the SBRR falls between these two, the fact that the flotation fee proposed by NS is less than or equal to the flotation fees for offerings of both sizes indicates that NS's figure is still conservative.

<sup>32</sup> The R-1 is an annual report that each Class-I railroad submits to the Board.

<sup>33</sup> Otter Tail v. BNSF Ry., NOR 42071, slip op. at D-26 (STB served Jan. 26, 2006).

The Board did not err by rejecting NS's rail transportation costs. The Board explained that NS's assertion that it "obtains substantial amounts of rail from suppliers located on and near its lines" was unsupported. Decision, slip op. at 134. Therefore, the Board concluded that NS had not shown that the R-1 cost excluded foreign transportation costs. Id. On reconsideration, NS merely repeats its claim that the R-1 rail cost does not account for the transportation of rail over the incumbent railroad's lines. But the Board acknowledged that argument in the Decision; specifically, the Board recognized that the rail cost proposed by Sunbelt may already include significant foreign transportation costs, as it is shown by the R-1 itself. Therefore, NS has not refuted the Board's conclusion that NS's proposed costs appear to duplicate foreign transportation costs already included in the R-1 cost.

Lighting for construction. NS argues that the Board erred in the Decision by rejecting lighting costs for night construction of the SBRR as a barrier to entry, which is not permitted under the theory of contestable markets. (NS Pet. 18-20.) NS argues that such a cost is not a barrier to entry, but "merely . . . account[s] for the costs necessary to complete construction" according to Sunbelt's schedule. (Id. at 19.) According to NS, its arguments here are different from other arguments previously rejected by the Board because NS is not arguing that the construction schedule is unrealistic, that insufficient resources exist to meet the construction schedule, or that the SBRR should pay a premium to meet its schedule. Sunbelt replies that the Board properly rejected NS's construction lighting costs by finding that they were an impermissible barrier to entry. (Sunbelt Reply 19-21.)

The Board did not materially err by declining to accept NS's construction lighting costs. The Board explained that precedent does not require a SARR to pay a premium for construction within a compressed time period, as this would constitute an impermissible barrier to entry, and the Board found that the cost of the lighting is such a premium. Decision, slip op. at 126-27 (citing Coal Trading Corp. v. Balt. & Ohio R.R., 6 I.C.C.2d 361, 412-14 (1990); McCarty Farms, 2 S.T.B. at 484 n.52). NS claims that its proposal does not constitute a barrier to entry because it does not contest the construction schedule or involve a claim that there would be insufficient resources or material to meet the construction schedule. But NS's argument is based on an assumption that more time is needed to complete the construction on schedule, which NS proposes by assuming night work would occur, and that time must be paid for in the form of lighting costs. We do not see a distinction between this and any other premium for expedited construction that the Board has rejected in the past. See, e.g., Coal Trading Corp., 6 I.C.C.2d at 412-413 (rejecting premium to import and mobilize skilled labor); Ariz. Public Services Co. v. Atchison, Topeka & Santa Fe Ry., 2 S.T.B. 367, 386-87 (1997) (rejecting argument that preliminary engineering costs should be increased to reflect limited construction period). Under the theory of unconstrained resources, we assume that resources are available to allow construction of the SARR in the minimum amount of time that is technologically feasible. See, e.g., Coal Trading Corp., 6 I.C.C.2d at 412-413. Therefore, we will not reconsider the Board's decision to reject NS's lighting costs.<sup>34</sup>

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<sup>34</sup> NS also argues that the Board erred by finding that the contingency factor, which accounts for unanticipated costs, could be used to fund lighting for construction. We  
(continued . . . )

Swell. NS argues that the Board erred by not accounting for swell (the expansion of loose earth quantities) in a manner it believes is consistent with the Means engineering costs that the Board relied on in the Decision. (NS Pet. 20-21.) On reconsideration, NS claims that calculation of Means unit costs for earthwork requires application of a conversion factor to account for changes in the volume of materials between excavation and haulage. (Id.) Specifically, NS argues that Means develops excavation costs using bank cubic yards, but hauling costs using loose cubic yards, and that a conversion factor is needed to account for this difference. (Id.)

Sunbelt replies that the Board did not err, noting that NS previously argued that the swell conversion factor is necessary to ensure consistency between the earthwork unit costs (based on Means) and earthwork quantities (based on the ICC Engineering Reports (Engineering Reports)). Sunbelt argues that the Board concluded that the Engineering Reports do not specify a particular material state, and therefore “any application of a swell factor is speculative.” (Sunbelt Reply 22.) Sunbelt claims that NS’s argument here—that correct calculation of unit costs is an issue that is independent from the unit of measurement of quantities—is new and illogical. (Id.)

The Board erred by declining to apply NS’s proposed adjustment. The Board stated that “NS’s adjustments are unnecessary because Means costs are based on the specific type of earthwork, thereby accounting for shrinkage and swell associated with that use,” Decision, slip op. at 116, but the Board’s statement is not an accurate description of how costs were developed by the parties. The workpapers submitted develop a composite unit cost for soil that includes, among other things, excavation, haulage, and compaction. While the costs for each of these activities accurately reflect Means costs, it is inappropriate to use the same volume of soil as a multiplier of the unit cost as the soil is clearly in three different states, and therefore at three different volumes. Ideally a conversion factor would be applied to the volumes of the soil in its different phases; however, this is not possible given how the evidence is presented—with one composite cost for moving soil from its natural to constructed state. NS, as its workpapers show, fixes this problem by applying the conversion factor to the Means unit costs at the different phases within the development of the composite cost. (NS Pet. 20-21; NS Reply WP “No.2\_STB - SBRR Open Grading NS Reply.xlsx”, Jan. 7, 2013.)

Further, despite the Board’s statements about quantity measurements in the Engineering Reports, see Decision, slip op. at 116, it appears that the Engineering Reports in this case reflect quantities measured in both bank and embankment cubic yards. Embankment cubic yards is the most compact material state, and bank cubic yards is a less compact state. NS applies its swell

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( . . . continued)

acknowledge NS’s point that the Board wrongly concluded the contingency factor could be used for night work lighting, given that this is a cost that is entirely foreseeable. McCarty Farms, 2 S.T.B. at 521; Ariz. Public Serv. Co., 2 S.T.B. at 402. However, the error is not material because we conclude that the Board was otherwise correct to reject the cost.

conversion factors based on an assumption that all Engineering Reports quantities are in bank cubic yards. NS's treatment of all quantities as bank cubic yards rather than attempting to differentiate the material states in the Engineering Reports results in lower quantities, and therefore lower costs, overall, than other approaches that would identify some or all Engineering Reports quantities as embankment cubic yards. We find this conservative approach to be acceptable here. A conversion factor is necessary and we will apply it as shown in NS's workpapers. We will reconsider this issue and adjust the earthwork costs.

Ad valorem taxes. NS argues that the Board's ad valorem tax worksheet was not correctly linked to the Board's discounted cash flow analysis. (NS Pet. 22-23.) This issue is moot given our decision, discussed above, to grant Sunbelt's request that we reconsider the decision to use NS's ad valorem tax approach.

Movable bridge approach spans. NS argues that the Board erred by accepting Sunbelt's evidence of movable bridge approach spans. (*Id.* at 23.) Sunbelt concedes the error. (Sunbelt Reply 23.) We will reconsider and adopt NS's evidence regarding this issue.

Terminal value. The terminal value represents the residual value of the SARR's assets, future interest payments, and remaining tax liabilities (for both interest and depreciation), and reflects the cash flow required to account for the value of the assets not consumed during the 10-year life of the DCF model. In the Decision, slip op. at 192-93, the Board agreed with Sunbelt that there was a mismatch between the interest payments associated with the capital carrying charge of the DCF model and the tax-shielding effect of those interest payments into perpetuity.<sup>35</sup> To account for this mismatch, the Decision adjusted the terminal value component of the DCF's capital carrying charges to reflect the cost-of-capital assumption that the SARR's level of debt is held constant into perpetuity, and that interest-tax shields consistent with this level of debt are accounted for in the cash flow calculation.

NS now argues that the Board should not have accepted Sunbelt's terminal value mismatch argument, and made the associated adjustment, for two reasons. First, NS says that the Board's modification would introduce a new inconsistency into the DCF model "by explicitly applying different financial assumptions to a SARR's initial acquisition of assets and its subsequent replacement of assets as they are assumed to wear out." (NS Pet. 25.) Second, NS contends that the Decision overrides the scheduled interest payments in years 11 to 20 and instead uses an average interest rate over the 20-year debt amortization period. NS claims that this in turn leads to an overstatement of tax benefits in the years 11-to-20 time frame. (*Id.* at 26.) Sunbelt responds that, rather than create a new inconsistency in the DCF model, its proposed terminal value modification simply removes an inconsistency that was already present in the DCF model. (Sunbelt Reply 24-25.) Moreover, Sunbelt argues that the Board's terminal value modification does not lead to a mathematical error, but merely reflects the use of an average interest rate payment over time.

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<sup>35</sup> Previously, the Board's DCF model had only taken into account the tax effect of interest payments during the 10-year life of the SARR.

The Board did not err by accepting Sunbelt's terminal value adjustment. As previously discussed above in the section on "Interest-only debt amortization," there appears to be some confusion by the parties about how the Board's Investment SAC spreadsheet operates within its DCF model. NS is correct that the DCF model must take into account the financing of both the initial acquisition of assets and the subsequent replacement of assets as they are assumed to wear out over the life of the SARR. Ideally, the Board's SAC analysis would precisely predict the timing of debt payments and their associated financing charges as the SARR strives over its life to achieve its optimal debt level. In practice, however, the complexity of such an effort would make the SAC analysis unworkable as a regulatory tool. This is because different assets have different lives, and precisely accounting for all of them would be impractical. Accordingly, adjusting the debt and equity mix for purposes of determining the capital carrying charge in the Investment SAC spreadsheet, up to and including year 120, would undermine the usefulness of the DCF model. As a result, the Board must simplify. To do so, rather than account for the inclusion of the replacement value of assets when they come due, the DCF model calculates the net present value of the replacement assets and includes that amount on day one of the DCF model for purposes of determining the total dollar amount of financing.

NS misses the mark by arguing that different assumptions are being used in the DCF model for the treatment of the initial acquisition of assets and their subsequent replacement when both categories of assets are being financed on day one out into perpetuity in the model.<sup>36</sup> As noted in the underlying Decision, slip op. at 191, there are many ways that the SAC test treats the SARR differently from how the incumbent railroad operates, which can be favorable to either party when viewed in isolation. In this instance, having the SARR include a charge for financing the replacement value of assets beginning on day one works to the benefit of the defendant railroad. But it is the Board's responsibility to balance the constraints of time and expense with fairness to the parties in determining which simplifying assumptions are appropriate for use in its DCF model. See BNSF Ry. v. STB, 453 F.3d at 482. The Board is charged with making various assumptions that account for expenses and revenues over time that solve for the resulting SAC constraint in present value terms. In order to balance these competing interests, interest payments on the outstanding debt flow through the DCF model at two places in the underlying spreadsheets: first, the Interest spreadsheet calculates interest payments as if the debt were amortized over 20 years for purposes of determining the tax shielding effect in years 1 to 10; and second, the Investment SAC spreadsheet calculates the dollar amount of quarterly interest payments as if the debt were held into perpetuity for purposes of determining the capital carrying charge. The Board's terminal value modification, rather than creating a new inconsistency in the model, actually solves an existing inconsistency by allowing for the tax-shielding effect of interest payments into perpetuity, consistent with the manner in which the underlying debt is also treated.

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<sup>36</sup> "If interest rates significantly change, the lawful rate may change as a result, and any party is free to petition the Board, under 49 C.F.R. § 1115.4, to reopen a proceeding on the grounds of substantially changed circumstances." Decision, slip op. at 193.

NS is similarly mistaken when it argues that the Decision overrides the scheduled interest payments in years 11 to 20, which, it claims, leads to an overstatement of tax benefits in the same time frame. For purposes of determining the tax-shielding effect in years 1 to 10, the Interest spreadsheet amortizes the outstanding principal balance of the debt as if it were paid off over 20 years. However, that is not the case in the Investment SAC spreadsheet, where the principal balance of the debt remains outstanding into perpetuity. This different treatment of interest rates is discussed at length in the “interest-only debt amortization” section. Implicit in NS’s theory that interest payments in years 11 to 20 are overstated for purposes of determining the tax shielding effect is the assumption that the level of debt is still being amortized during that same time period in the Investment SAC spreadsheet. As discussed, the Board’s SAC model makes a simplifying assumption about the repayment of debt that assumes a constant balance into perpetuity in its Investment SAC spreadsheet. Accordingly, NS’s assumption that the debt is being paid down in years 11 to 20 in the Investment SAC spreadsheet is misplaced. The Board will not grant reconsideration on this issue.

Derailment costs. NS asks the Board to reconsider its decision to accept Sunbelt’s derailment and clearing costs. (NS Pet. 27-29.) NS argues that Sunbelt’s proposal to use Federal Railroad Administration (FRA) incident reports understated the derailment costs because FRA reporting excludes certain of these costs and because many derailment expenses do not meet the reporting threshold. NS claims that its proposed derailment costs, which it based on its R-1, are more accurate because they include the costs omitted from the FRA incident reports. According to NS, the Board accepted derailment costs based on R-1 reports in DuPont, NOR 42125, slip op. at 129. (NS Pet. 28.) NS argues that the only reason the Board rejected the R-1-based costs in this proceeding was because there was a minor technical error in an NS workpaper, which improperly scaled the R-1 derailment costs based on route-miles rather than ton-miles, the Board’s preferred approach. NS claims that it was evident to the Board and to Sunbelt that NS’s workpaper contained this inadvertent error, particularly since NS stated that it intended to propose the ton-mile approach in its narrative. Therefore, NS concludes, the Board erred by basing its decision on an obvious mistake rather than assessing which party’s evidence was superior.

Sunbelt replies that NS’s evidence was inconsistent and therefore the Board was justified in accepting Sunbelt’s proposal. (Sunbelt Reply 26-27.) Sunbelt claims that although the Board relied on the carrier’s R-1 in DuPont, here the Board properly found Sunbelt’s evidence was superior to the R-1 because Sunbelt addressed NS’s claim that the newly-constructed SBRR might incur more derailments than the older, real-world NS track—something the complainant in DuPont had not done.

The Board did not err. As Sunbelt points out, the inconsistency between NS’s narrative and workpaper is more complex than NS argues in its petition for reconsideration. Contrary to NS’s claim, it does not appear that NS’s workpapers merely scaled costs based on route-miles rather than the ton-miles proposed in NS’s narrative. In fact, NS’s claim on reconsideration that its workpaper reflects route-miles is plainly incorrect; the SBRR clearly would not have the number of route miles allegedly reflected in NS’s workpaper. Compare Decision, slip op. at 19 with NS Reply Workpaper “Reply SBRR Derailment and Clearing Wrecks.xlsx.” Even the years specified in NS’s workpaper are inconsistent with NS’s narrative. (Compare NS Reply III-

D-196 n.356, Jan. 7, 2013 with NS Reply Workpaper “Reply SBRR Derailment and Clearing Wrecks.xlsx.”)

We recognize that the Board concluded in another proceeding that basing derailment costs on R-1 data was superior to basing them on FRA incident reports, see DuPont, NOR 42125, slip op. at 129, and we continue to believe that using ton-miles is generally a better approach than a route-miles comparison. However, in this proceeding, the still unresolved inconsistencies between NS’s narrative and workpapers mean that NS did not submit useable corrective reply evidence. As described above, NS did not provide evidence that supports its narrative claims regarding the ton-mile approach. Sunbelt’s evidence, while not ideal, is based on an acceptable data source and is feasible and supported. See Decision, slip op. at 94; Duke/NS, 7 S.T.B. at 100. Accordingly, we will not reconsider derailment costs.

Transportation costs for plates, spikes, and anchors. NS asks for reconsideration of the Board’s decision to accept Sunbelt’s transportation costs for plates, spikes, and anchors. (NS Pet. 29-31.) NS argues that the Board recognized that NS’s evidence was superior, but rejected the evidence based on what the Board should have recognized was a typographical error. Sunbelt does not contest NS’s argument.<sup>37</sup>

The Board erred by accepting Sunbelt’s evidence of these transportation costs. The Board recognized elsewhere in the Decision that NS’s evidence—which was based on recent, real-world estimates—was indeed superior to Sunbelt’s dated evidence.<sup>38</sup> NS’s evidence did contain a typographical error by misplacing a decimal point: NS stated in its narrative that it proposed a cost of \$0.934 per ton-mile, but its workpaper cost, which was supported by calculations, was \$0.0934. (See NS Reply III-F-152, Jan. 7, 2013, NS Reply workpaper “Scanned OTM transportation calculation.pdf”, Jan. 7, 2013.) However, NS’s intent was clear, and thus, the inconsistency between the narrative and workpaper was not a sufficient basis to reject NS’s otherwise better evidence. See DuPont, NOR 42125, slip op. at 33-34 (stating that the Board routinely allows correction of minor technical errors). We will therefore reconsider and accept NS’s cost for this item.

PTC costs. The parties disagreed on the feasibility of installing a PTC system for all train control and communications on the entirety of the SBRR at the outset of the SBRR’s operations.

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<sup>37</sup> Sunbelt claims that an identical issue occurs for ballast quantities and that the Board must therefore reach the same conclusion on the transportation cost issue there as it does on the ballast quantity issue here. However, as we discuss fully above, the typographical error in Sunbelt’s evidence on ballast quantities was not apparent, and therefore the two issues are not analogous.

<sup>38</sup> Compare Decision, slip op. at 131, 133 (accepting NS costs for offline transportation and tie transportation when NS provided a recent estimate and Sunbelt provided an estimate from 2000), with Decision, slip op. at 136 (rejecting NS cost although it was based on recent estimate); Sunbelt Rebuttal III-F-80 to III-F-82, III-F-87 (defending proposed material transportation cost, which was based on 1994 estimate).

Sunbelt claimed that a PTC system could be fully installed on the entire SBRR system by 2011 (the first year of operations), while NS claimed that a traditional Centralized Traffic Control system would need to be installed for use at the beginning of operations, with a PTC system installed later on (though no later than the end of 2015, which was the statutory deadline for PTC compliance). Decision, slip op. at 144-45. The Board did not accept the entire position of either party, but instead concluded that an initial PTC system could be installed in 2011 and later upgraded, with the costs of the upgrades spread over the 2011-to-2015 time period. Id. at 145. According to NS, the Board's decision was unsupported because the parties did not present evidence that addressed which PTC system development, deployment, and testing costs would be incurred in 2011 and which would be incurred later. (NS Pet. 31-32.) NS also claims that the Board omitted PTC-related development, deployment, back office, or testing expenditures. (Id. at 32.) Therefore, NS argues that the Board should either (1) assume that the SBRR would incur the full PTC cost prior to commencement of operations and then incur many of those costs again between 2011 and 2015 to upgrade the system to comply with RSIA standards and requirements, or (2) allow parties to submit evidence on how to implement the approach explained in Decision, slip op. at 145. Sunbelt argues that the Board did not err and that the Board has authority to adjust parties' evidence to resolve an issue. (Sunbelt Reply 27-28.)

We will not reconsider the Board's decision regarding PTC costs. The Board may exercise its discretion to fill relatively minor gaps in the record by adjusting the parties' evidence, as it did here, in order to give effect to its assessment of the evidence before it. See Xcel 2004, 7 S.T.B. at 609-10. As noted above, if the Board sought additional evidence each time neither party's evidence as presented was perfect on a particular issue, it would unduly delay resolution of rate proceedings that are already complex and lengthy. Because NS does not show the Board erred in concluding that PTC could be implemented at the start of SBRR operations and then upgraded for RSIA compliance, we find that the Board's assessment and adjustment of the available evidence was justified and appropriate,<sup>39</sup> and we will not make the adjustment proposed by NS or reopen the record for additional evidence on this issue.

Bonus depreciation. In the underlying case, the parties disagreed on the applicability of bonus depreciation tax benefit provisions enacted as a part of federal economic stimulus efforts.

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<sup>39</sup> NS argues that the Board did not include PTC-related development, deployment, back office, or testing expenditures, but the Board did include these costs. (See NS Pet. 32; "No.2 – STB – Sunbelt C&S Estimate NS Reply.xls" sheet "Reply Components & Tabulation" at cells BA76 to BA78 & sheet "Summary" at cells I4, J4.) Specifically, the Board took the following steps to implement PTC costs in accordance with the approach we adopted. First, we took Sunbelt's cost estimates for the initial investment; specifically, the "Signals" and "Communications" numbers in Table B-7 in the Decision are from Sunbelt's rebuttal (with some adjustments to signals per our analysis). These costs were included in the costs for initial construction of the SARR. For the development and upgrading of the system, we then used NS's costs. Specifically, we spread NS's total "PTC Development" costs over the years 2012 to 2014 to approximate the timing of these investments. NS's "PTC" costs were included as future investment in 2015, the year when a RSIA-complaint system was mandated to be operational.

NS asks the Board to reconsider its decision that the SBRR could obtain bonus depreciation tax benefits that were not available to the incumbent NS. NS argues that the only reason full bonus depreciation would be available to the SBRR is because of the SAC assumption of an artificially short construction period. (NS Pet. 35.) According to NS, this “artificially compounds the advantages the SARR has over the incumbent” by providing the SARR with greater savings than a least-cost, most-efficient carrier could achieve and therefore distorts the SAC analysis by reducing costs to an unrealistically low level. (*Id.*) NS therefore argues that allowing Sunbelt to take advantage of full bonus depreciation would constitute a “reverse” barrier to entry. NS cites the Board’s discussion of barriers to entry in West Texas Utilities Co. v. Burlington Northern Railroad, 1 S.T.B. 638, 670 (1996), and claims that under that decision, the SARR is “a replacement carrier stepping into NS’s shoes” and therefore should not enjoy benefits unavailable to NS. (NS Pet. 36.) NS also claims that although the Decision, slip op. at 188, referred to disadvantages to the SARR resulting from an abbreviated construction period, the Board did not identify any such specific disadvantages. (*Id.* at 35 n.65.) For these reasons, NS asks the Board to adopt its proposal to limit SBRR bonus depreciation benefits to those available to NS under the same laws. (*Id.* at 34-36.)

Sunbelt argues that the Board did not err and claims that the SARR is in fact potentially subject to numerous disadvantages as a result of the abbreviated construction schedule. (Sunbelt Reply 32-36.)

The Board did not err by allowing the SBRR to receive full bonus depreciation tax benefits. The Board explained that it would not require the SARR to bear the disadvantages of its construction timing while denying it advantages such as bonus depreciation tax benefits. Decision, slip op. at 188. NS argues that the Board did not identify any such disadvantages, but, as Sunbelt argues, a SARR may face significant disadvantages due to this assumption. These disadvantages may include high interest rates on debt and elevated prices for various inputs such as land, materials, and labor during the applicable construction period. Moreover, NS has had a variety of favorable tax laws available to it at various times, but NS does not propose that the SARR receive each of those tax benefits. The Board should permit a SARR to reflect not only the disadvantages, but also the benefits, of the timing of its construction project.

Contrary to NS’s claim, West Texas Utilities Co., 1 S.T.B. at 670, does not undermine our conclusion. NS suggests that the Board’s reference to the SARR as a replacement carrier that steps into the shoes of the incumbent absolutely requires the SARR to face exactly the same conditions as the incumbent. But in West Texas Utilities Co., the Board was addressing what constitutes entrance costs faced by a second or subsequent entrant to a rail market. The Board did not address so-called reverse barriers to entry. Instead, in that decision, the Board defined barriers to the entrant as “any new costs that a new entrant must incur that were not incurred by the incumbent.” But, as the Board explained, Decision, slip op. at 188-89, “[p]lacing the SARR on equal footing with the incumbent is not feasible in all instances if doing so would undermine the usefulness of SAC as an analytical tool,” and West Texas Utilities Co. does not contradict this conclusion. In other words, NS’s expectation that the SAC model should precisely reflect the conditions experienced by the defendant when it built its system is unrealistic. We therefore reject NS’s argument that full application of bonus depreciation is a “reverse barrier to entry” and will not reconsider this issue.

Failed equipment and dragging equipment detectors. NS asks the Board to reconsider its decision to accept Sunbelt's proposed quantities for Failed Equipment Detectors (FEDs) and Dragging Equipment Detectors (DEDs). (NS Pet. 36-37.) FED and DED quantity determinations depend on how much spacing there is between the FEDs and DEDs. NS argues that it showed that its proposed quantities were based on NS's real-world FED and DED spacing of 15 miles and complied with current industry standards (2007 American Railway Engineering and Maintenance-of-Way Association (AREMA) standards), while Sunbelt's proposed spacing of 35 miles was based on an outdated standard (2001 AREMA standards). (Id.) Sunbelt responds that NS assumes that Sunbelt's use of 2001 AREMA standards is not consistent with 2007 AREMA standards, but without showing that inconsistency. (Sunbelt Reply 36-37.)

The Board did not err by accepting Sunbelt's proposed FED and DED quantities rather than NS's proposed quantities. As explained in the Decision, slip op. at 148, the Board accepted Sunbelt's 35-mile proposal because it was supported by expert testimony, and NS did not show that it was inconsistent with current industry standards. NS argues that the SARR's FED and DED spacing does not meet current industry standards, but the industry standards that NS refers to (2007 AREMA) do not require a standard FED and DED spacing of a certain number of feet. Rather, the standards provide various factors on which railroads should determine FED placement. (NS Reply III-F-228, Jan. 7, 2013.) NS did not provide evidence or analysis going through these factors and applying them to Sunbelt's proposed spacing. See id. Accordingly, there is nothing in the record to demonstrate that Sunbelt's spacing was infeasible. The Board's precedent requires a SARR to be "consistent with the underlying realities of real-world railroading," Ariz. Elec., NOR 42113, slip op. at 16, but it does not require a SARR to duplicate the incumbent's real world operations—only that the complainant propose operations that are feasible and supported. Id. at 10. Therefore, we will not reconsider the Board's decision to accept Sunbelt's FED and DED quantities instead of NS's proposed quantities.

Operations Service and Support Staff. NS asks the Board to reconsider its decision not to require a 10-person Operations Service and Support (OSS) department in addition to a Customer Service department. (NS Pet. 37-39.) NS argues that the OSS staff would be necessary to provide certain critical functions beyond the scope of the Customer Service department's role. (Id. at 38-39.) NS claims the Board disregarded its arguments that Sunbelt's plan to have a Customer Service desk that is staffed by only one person at a time is inconsistent with the realities of real-world railroading. (Id.) Sunbelt replies that it explained that its Customer Service department would be supported by other SBRR personnel that would address the functions NS claims that Sunbelt neglected, and that NS did not provide evidence showing that the OSS staff was necessary. (Sunbelt Reply 36-39.)

The Board did not err by excluding the OSS staff proposed by NS. The Board concluded that NS's OSS department would be duplicative of the Customer Service department. Decision, slip op. at 49. Although NS asserts that the OSS and Customer Service departments would handle distinct functions, its own evidence does not support this argument. NS states that Sunbelt proposed a Customer Service department that would respond to customer service requests and interact with customers and field personnel to ensure equipment needs are met. (NS Pet. 37.) It then claims that the OSS department would be necessary for functions "associated

with the first and last mile of a car's movement" and gives examples of those functions, but most of those functions relate to equipment issues and customer response. (Id. at 38.) In other words, NS's descriptions of the Customer Service and OSS department are highly similar. Accordingly, NS has not identified any error in the Board's conclusion that the two departments would be duplicative.

NS alternatively claims that if Sunbelt has only a Customer Service department, it would need to have more than a single desk staffed by one employee to handle all the necessary functions. (Id. at 38-39.) NS has provided no supporting evidence on the number of employees that would be needed, but instead simply claims that the Board's decision is inconsistent with the real world, citing Arizona Electric, NOR 42113, slip op. at 16. As discussed above, the proponent of a cost item must provide supporting evidence for its claims that a real-world cost item is necessary and may not rely on the mere fact that the item exists in the real world. See Ariz. Elec., NOR 42113, slip op. at 10; McCarty Farms, Inc., 2 S.T.B. at 468. We will therefore not reconsider the Board's decision to exclude NS's proposed OSS department.

### SUMMARY AND RESULTS

Taking into account the combined effect of the technical corrections agreed to by the parties and the issues on which the Board has granted reconsideration, Sunbelt has failed to show that the rates charged by NS are unreasonable. The Board's analysis shows that the SARR would earn approximately \$20 million less from the traffic group than the SBRR would require to adequately serve the same traffic group.

It is ordered:

1. The technical corrections discussed in this decision are hereby adopted.
2. Sunbelt's petition for reconsideration is granted in part and denied in part as described above.
3. NS's petition for reconsideration is granted in part and denied in part as described above.
4. This decision is effective on the date of service.

By the Board, Chairman Elliott, Vice Chairman Miller, and Commissioner Begeman. Vice Chairman Miller concurred with a separate expression and Commissioner Begeman dissented with no further comment.

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VICE CHAIRMAN MILLER, concurring:

I concur in the result reached in this decision, but write separately to once again express my growing apprehension with the SAC test. My concerns are twofold. First, as I noted when the Board issued the original decision in this proceeding, I have concerns about the complexity

of the test itself and the fact that this complexity causes the process to be cost- and time-prohibitive.<sup>40</sup> Since then, my experiences with the SAC test have only deepened my concern. There can be no doubt that the reason the Board has seen a near total absence of rate cases in recent years is because the process is simply not accessible to most shippers.

My second concern involves the philosophical underpinnings of the test itself. In the decision on the petition for reconsideration in E.I. DuPont De Nemours & Co. v. Norfolk S. Ry. Co., NOR-42125 (STB served Dec. 23, 2015) (Miller concurrence), I raised my concern that the SAC test is based on a comparison of the hypothetical costs of building a “new” railroad against the real world “historic” costs of an existing system. I am still not comfortable with the fact that a complainant must account for the costs of replacing certain assets that the defendant itself would not replace.

I also cannot ignore the problems with application of the SAC test case involving chemical shipments, which involve carload instead of unit-train movements. These chemical cases require the complainant to design a hypothetical railroad that is much more complex in scope and detail, to the point that it is a nearly impossible task. The very fact that the SAC test was developed in a proceeding titled Coal Rate Guidelines demonstrates that the test was not intended for non-coal commodities.

Because of these concerns, I have strongly supported the efforts by the Board to study and explore alternatives to the SAC test. Congress itself appears to share this concern, having required the Board to issue a report to Congress on potential alternatives to the SAC as part of the Act. At the time the original decision in this proceeding was issued, I was encouraged by the fact that the Board had already engaged an outside consultant to conduct a review of other rate regulatory schemes and report on their findings. That report has now nearly been completed.

In the meantime, I have been making efforts to better understand the different approaches to rate regulation for network industries that have been studied and proposed by academic economists. I have been particularly intrigued by the study issued in June 2015 by the Transportation Research Board (TRB). The TRB study committee, which was composed of independent economists, concluded that the “standards and procedures used by . . . STB for ruling on the reasonableness of challenged rates have proved to be slow, costly, and inappropriate for many shippers’ circumstances over three decades.”<sup>41</sup> For this reason, they advocated an entirely new regulatory scheme for regulating rail rates. While adopting the TRB recommendations would require legislative changes that are beyond the Board’s ability, some of the themes of the study are noteworthy – particularly the idea of using benchmarking as part of the rate review process.

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<sup>40</sup> See Sunbelt Chlor Alkali P’ship v. Norfolk S. Ry. Co., NOR-42130 (STB served June 20, 2014) (Miller concurring).

<sup>41</sup> See Transportation Research Board, Modernizing Freight Rail Regulation, Special Report 318, at 6-7 (2015).

After two years as a Board Member, during which time I have given considerable thought to these issues, I have serious doubts about whether the SAC test is still a valid approach to rail rate regulation. But even if it is still valid, that does not necessarily mean it is the *best* approach. For these reasons, I believe that now is the time for the Board to begin a major review and discussion of alternatives to SAC. In my view, a reasonable starting point would be for the Board to publicly release the report prepared by our outside consultant on SAC alternatives and conduct a hearing to obtain feedback and reaction from our stakeholders on the report's conclusions. In my meetings with shipper groups, many have expressed a desire to present the Board with their own thoughts and ideas on alternatives to SAC, and the hearing could also serve as an opportunity for them to do so. The hearing would also inform the Board's report to Congress required by the Act.

Looking for alternatives to SAC would, of course, not mean the Board should abandon attempts to improve the SAC test itself. The Act requires the Board to look at ways to expedite the SAC process and we have opened a proceeding to do so in Expediting Rate Cases, EP 733. But when it comes to our rate case process, the Board should consider all options – and do it soon, as the credibility of the rate case approach is at stake.

## APPENDIX A

As described below, we correct each of the errors identified by the parties in their joint petition for technical corrections. We note that some of these technical corrections are modified by our decision on the petitions for reconsideration.

### TECHNICAL MATTERS RAISED BY THE PARTIES

1. Train and engine personnel wages. The parties agree that although the Board accepted NS's fringe benefit ratio, the Board's workpapers did not apply the fringe benefit ratio to the average train crew wages. Instead, the Board applied the fringe benefit ratio to average T&E wages, which omit conductors' wages. The error is corrected.
2. RMI implementation costs. The parties agree that the Board accepted Sunbelt's costs for implementation of RMI software, but that the Board's workpapers used NS's costs. The error is corrected.
3. Intermodal lift and ramp costs. The parties agree that the Board accepted Sunbelt's rebuttal lift and ramp unit costs and its count of containers requiring this service, but the workpapers used Sunbelt's opening evidence instead of its rebuttal evidence for those items. The error is corrected.
4. Removal of team overhaul costs. The parties agree that although the Board rejected the embankment quantities proposed by NS, the workpapers included those quantities in calculation of roadbed preparation costs. The error is corrected.
5. Elimination of NS's adjustments to clearing costs. The parties agree that although the Board declined to accept NS's adjustments to Means clearing costs, the Board's workpapers included those adjustments. The error is corrected.
6. Elimination of stripping costs. The parties agree that the Board rejected NS's costs for stripping, but the workpapers included the stripping quantities and costs. The error is corrected.
7. Understated earthwork costs. The parties agree that the Board erred in calculation of earthwork costs. They describe the errors as follows. The Board rejected NS's adjustments to Means unit costs for loose and solid rock, except for the fine grading additive. The Board's workpapers linked its development of loose and solid rock earthwork costs to Sunbelt's rebuttal spreadsheet unit costs and included the fine grading additive. The workpapers used Sunbelt's unit costs, which reflected indexing and the Means location factor, but the workpapers erroneously applied indexing and a location factor again. The Board's workpapers also did not include costs to excavate and load blasted rock. The earthwork cost errors are corrected.
8. Weight of ties. The parties agree that although the Board accepted Sunbelt's evidence on the weight of ties, the workpapers did not apply those weights in some of the formulas used to calculate tie transportation costs. The error is corrected.
9. Transportation costs for ties. The parties agree that the formulas used in the Board's workpapers for on-line transportation costs for ties contain errors. The errors are corrected.
10. Set-out track miles. The parties agree that although the Board accepted Sunbelt's set-out track miles, the workpapers did not use Sunbelt's set-out track miles to calculate roadbed preparation costs. The error is corrected.
11. Industrial and siding track ballast area square feet. The parties agree that the Board accepted 13.9 square feet for the ballast cross-section area for industrial and siding tracks, but the workpapers reflected 15.11 square feet for that value. The error is corrected.

12. Transportation costs for plates, spikes, and anchors. The parties agree that while the Board accepted Sunbelt's transportation cost per ton-mile for plates, spikes, and anchors, the Board's workpapers used NS's transportation cost for that item. The error is corrected.
13. Incorrect turnout counts for setout tracks. The parties agree that the Board accepted Sunbelt's FED count and Sunbelt's number of set-out track miles, but the Board's workpapers did not reflect a necessary resulting change in the #10 turnout count in track construction cost calculation. The error is corrected.
14. Moveable bridges. The parties agree that although the Board rejected Sunbelt's argument that the SBRR would incur only ten percent of the costs of moveable bridges, the decision was not applied in the workpapers. The error is corrected.
15. Non-moveable bridge costs. The parties agree that the Board's workpapers include the costs for major non-moveable bridges twice. The error is corrected.
16. Communications and signals/interlocker costs. The parties agree that the Board's workpapers incorrectly accounted for the costs of PTC locomotives, resulting in errors in the DCF. The error is corrected.
17. Yard drainage costs. The parties agree that although the Board accepted Sunbelt's yard drainage costs for the main Birmingham yard and accepted NS's drainage costs for all other yards, the workpapers used NS's costs for all yards. The error is corrected.
18. Fencing costs. The parties agree that the Board accepted Sunbelt's quantities and costs for fencing, but the workpapers omitted the costs. The error is corrected.
19. Signage double count. The parties agree that the Board duplicated signage costs because those costs were included in the public improvements costs, but the Board's workpapers also added them in another category. The error is corrected.
20. Real estate costs. The parties agree that the DCF model's land investment values did not include the \$8.2 million in real estate acquisition costs that the Board accepted. The error is corrected.
21. Depreciation tax shield on replacement assets. The parties agree that the Board incorrectly removed the present value of depreciation tax deductions on future asset replacements in the "Replacement" worksheet of the DCF model. The error is corrected.
22. Base depreciation on future PTC investment. The parties agree that the workpapers did not include the present value of depreciation tax deductions on 2012 to 2015 PTC investments. The error is corrected.
23. Modified Accelerated Recovery System (MACRS) depreciation schedules on PTC investment. The parties agree that in developing depreciation expenses for future PTC investment, the Board's DCF model incorrectly referenced PTC asset lives, which led to the use of incorrect MACRS depreciation schedules. The error is corrected.
24. Salvage on future PTC investment. The parties agree that in calculating the initial installation of PTC assets in the years 2012 to 2015, the Board incorrectly deducted salvage from the investment base. The error is corrected.
25. Interest tax shields on future PTC investment. The parties agree that in calculating the 2012 to 2015 PTC investment, the Board's workpapers incorrectly removed the interest tax deduction for PTC investment financed with debt. The error is corrected.
26. Future PTC investment in the investment SAC worksheet. The parties agree that the Board's DCF model incorrectly referenced the 2012 PTC investment values in the "Investment SAC" worksheet instead of the 2013 and 2014 investment values. The error is corrected.

27. Incorrect productivity adjustment in hybrid RCAF (Rail Cost Adjustment Factor). The parties agree that the Board's quarterly RCAF-A index calculations (which it used to develop its Hybrid RCAF forecast) for the periods 1Q 2015 through 3Q 2021 incorrectly used full-year productivity factors instead of quarterly productivity factors. The error is corrected.

The results of the technical corrections are as follows:

Table D-1 (technical corrections)

| SBRR Capital Recovery<br>(\$ Millions) |   |                |                          |                  |
|--|---|----------------|--------------------------|------------------|
|  | Capital<br>Requirement<br>Road Property | Total<br>Taxes | Required<br>Cash<br>Flow | Present<br>Value |
|  |   |                |                          |                  |
| 2011                                   | 106.1                                   | -              | 106.1                    | 103.0            |
| 2012                                   | 258.3                                   | -              | 258.3                    | 232.0            |
| 2013                                   | 264.7                                   | -              | 264.7                    | 213.9            |
| 2014                                   | 275.0                                   | -              | 275.0                    | 200.1            |
| 2015                                   | 292.6                                   | -              | 292.6                    | 191.7            |
| 2016                                   | 303.0                                   | -              | 303.0                    | 178.7            |
| 2017                                   | 313.7                                   | -              | 313.7                    | 166.6            |
| 2018                                   | 325.5                                   | 75.5           | 249.9                    | 120.1            |
| 2019                                   | 337.9                                   | 117.9          | 219.9                    | 94.7             |
| 2020                                   | 350.3                                   | 123.3          | 227.0                    | 88.0             |
| 2021                                   | 208.4                                   | 73.8           | 134.6                    | 48.0             |
|  |   |                | Terminal Value           | 1,122.8          |
|  |   |                | Total                    | 2,759.7          |

Table D-2 (technical corrections)

| SBRR Total Revenue Requirements<br>(\$ Millions) |                      |                    |                           |
|--|----------------------|--------------------|---------------------------|
| Year   | RPI Capital Recovery | Operating Expenses | SBRR Revenue Requirements |
| 2011   | 106.1                | 86.3               | 192.4                     |
| 2012   | 258.3                | 206.3              | 464.6                     |
| 2013   | 264.7                | 211.3              | 476.0                     |
| 2014   | 275.0                | 214.6              | 489.6                     |
| 2015   | 292.6                | 223.8              | 516.5                     |
| 2016   | 303.0                | 233.9              | 536.8                     |
| 2017   | 313.7                | 247.5              | 561.2                     |
| 2018   | 325.5                | 262.9              | 588.3                     |
| 2019   | 337.9                | 279.3              | 617.2                     |
| 2020   | 350.3                | 296.6              | 646.9                     |
| 2021   | 208.4                | 182.3              | 390.7                     |

Table D-3 (technical corrections)

| Discounted Cash Flow Analysis<br>(\$ Millions) |                           |                      |            |               |                       |
|--|---------------------------|----------------------|------------|---------------|-----------------------|
| Year   | SBRR Revenue Requirements | NS Forecast Revenues | Difference | Present Value | Cumulative Difference |
| 2011   | 192                       | 154.4                | (38.0)     | (38.0)        | (38.0)                |
| 2012   | 465                       | 395.4                | (69.2)     | (62.2)        | (100.2)               |
| 2013   | 476                       | 432.5                | (43.5)     | (35.2)        | (135.3)               |
| 2014   | 490                       | 470.4                | (19.2)     | (14.0)        | (149.3)               |
| 2015   | 516                       | 512.4                | (4.0)      | (2.6)         | (152.0)               |
| 2016   | 537                       | 559.0                | 22.1       | 13.1          | (138.9)               |
| 2017   | 561                       | 608.9                | 47.8       | 25.4          | (113.5)               |
| 2018   | 588                       | 663.9                | 75.6       | 36.2          | (77.4)                |
| 2019   | 617                       | 726.0                | 108.8      | 46.9          | (30.5)                |
| 2020   | 647                       | 791.6                | 144.7      | 56.1          | 25.6                  |
| 2021   | 391                       | 501.3                | 110.6      | 40.4          | 66.0                  |

**APPENDIX B: Combined results of technical corrections and reconsideration**  
**TABLE A-1**

| SBRR 2011 Operating Costs<br>(\$ millions)                         |              |              |              |
|--|--------------|--------------|--------------|
|  | Sunbelt      | NS           | STB          |
| Locomotive Leases  | 5.2          | 7.2          | 6.4          |
| Locomotive Maintenance   | 11.4         | 11.6         | 11.6         |
| Locomotive Operations and Servicing                                | 48.9         | 56.1         | 52.1         |
| Railcar Leases and Maintenance                                     | 14.0         | 14.4         | 13.6         |
| Operating Personnel  | 28.4         | 46.9         | 43.3         |
| Materials, Supplies, and Equipment                                 | 0.9          | 1.2          | 1.4          |
| General and Administrative   | 9.1          | 18.5         | 18.5         |
| Ad Valorem Taxes   | 5.1          | 4.5          | 5.1          |
| Loss and Damage  | 0.6          | 0.6          | 0.6          |
| Insurance  | 5.8          | 8.2          | 7.7          |
| Excess Risk  | 0            | 16.8         | 0            |
| Intermodal Lift and Ramp   | 0.4          | 0.4          | 0.4          |
| Automotive Handling  | 1.0          | 1.8          | 1.0          |
| Costs Associated with New SBRR-NS Interchanges (Distributed Power) | 0.6          | 0.6          | 0.6          |
| Maintenance of Way   | 15.9         | 36.3         | 32.0         |
| <b>TOTAL</b>   | <b>147.3</b> | <b>225.1</b> | <b>194.3</b> |

TABLE A-2

| Total SBRR Locomotive Requirements |         |    |     |
|------------------------------------|---------|----|-----|
| Locomotive Type                    | Sunbelt | NS | STB |
| Road—ES44AC                        | 33      | 38 | 38  |
| Local and Work—GP38                | 19      | 21 | 21  |
| Yard Switching—SW1500              | 13      | 0  | 0   |
| Yard Switching—SD40-2              | 0       | 18 | 18  |
| TOTAL                              | 65      | 77 | 77  |

TABLE B-1

| Sunbelt RR Construction Costs<br>(\$ millions) |                |                |                |
|--|----------------|----------------|----------------|
|  | Sunbelt        | NS             | STB            |
| Land   | 215.6          | 218.1          | 220.4          |
| Roadbed Preparation                            | 261.0          | 676.7          | 401.9          |
| Track  | 583.9          | 874.4          | 793.1          |
| Tunnels  | 0.0            | 0.0            | 0.0            |
| Bridges  | 283.9          | 487.2          | 429.0          |
| Signals & Communications                       | 146.2          | 198.5          | 180.1          |
| Building & Facilities                          | 59.9           | 175.7          | 109.0          |
| Public Improvements                            | 11.5           | 16.7           | 11.5           |
| Mobilization                                   | 36.4           | 65.6           | 51.9           |
| Engineering                                    | 134.6          | 242.9          | 192.2          |
| Contingencies                                  | 151.7          | 273.8          | 216.6          |
| <b>TOTAL</b>                                   | <b>1,884.6</b> | <b>3,229.6</b> | <b>2,606.3</b> |

TABLE B-4

| Roadbed Preparation Costs<br>(\$ millions) |         |       |       |
|--|---------|-------|-------|
|  | Sunbelt | NS    | STB   |
| Earthwork                                  | 171.3   | 322.4 | 265.8 |
| Clearing & Grubbing                        | 14.4    | 16.9  | 10.9  |
| Lateral Drainage                           | 2.9     | 3.7   | 2.9   |
| Retaining Walls                            | 39.0    | 74.5  | 39.1  |
| Rip Rap                                    | 0.4     | 139.6 | 35.5  |
| Topsoil Placement / Seeding                | 0.0     | 0.0   | 0.0   |
| Land for waste quantities                  | 8.9     | 22.3  | 9.2   |
| Subgrade Preparation                       | 0.0     | 5.1   | 5.4   |
| Lighting & Dust control                    | 0.0     | 20.7  | 0.0   |
| Drainage for Yards                         | 0.0     | 10.3  | 6.8   |
| Access Road Mats                           | 0.0     | 33.3  | 0.0   |
| Road Surfacing                             | 0.0     | 0.0   | 0.0   |
| Relocation of Utilities                    | 0.0     | 0.0   | 0.0   |
| Environmental Compliance                   | 0.0     | 0.0   | 0.0   |
| Weather Costs                              | 0.0     | 1.7   | 0.0   |
| Sub TOTAL                                  | 237.0   | 650.4 | 375.6 |
| Culvert Cost                               | 24.0    | 26.3  | 26.3  |
| TOTAL                                      | 261.0   | 676.7 | 401.9 |

TABLE B-5

| Track Construction Costs<br>(\$ millions) |         |       |       |
|---|---------|-------|-------|
|   | Sunbelt | NS    | STB   |
| Sub-ballast & Ballast                     | 79.9    | 268.2 | 249.3 |
| Ties                                      | 114.4   | 131.3 | 129.2 |
| Rail                                      | 178.9   | 229.1 | 181.9 |
| Other Track Materials                     | 55.5    | 63.8  | 62.5  |
| Turnouts                                  | 39.2    | 50.9  | 45.1  |
| Switch heaters                            | 0.7     | 0.7   | 0.7   |
| Derails and Wheel<br>Stops                | 2.8     | 2.8   | 2.8   |
| Lubricators                               | 0.6     | 0.7   | 0.7   |
| Field Welds                               | 2.3     | 2.8   | 2.4   |
| Diamond Crossings                         | 3.5     | 3.5   | 3.5   |
| Weather related labor<br>additions        | 0.0     | 3.8   | 0.0   |
| Track<br>Installation/Labor               | 105.9   | 116.8 | 114.8 |
| TOTAL                                     | 583.9   | 874.4 | 793.1 |

TABLE B-6

| Bridge Costs<br>(\$ millions) |         |       |       |
|-------------------------------|---------|-------|-------|
|                               | Sunbelt | NS    | STB   |
| Railroad Bridges              | 283.1   | 484.9 | 428.1 |
| Highway Overpasses            | 0.8     | 0.8   | 0.8   |
| Weather Related Additions     | 0.0     | 1.6   | 0.0   |
| Total                         | 283.9   | 487.2 | 429.0 |

TABLE C-2

| Revenues<br>(\$ millions) |         |       |       |
|---------------------------|---------|-------|-------|
|                           | SunBelt | NS    | STB   |
| 2011                      | 375.9   | 353.5 | 362.4 |
| 2012                      | 411.4   | 384.6 | 394.3 |
| 2013                      | 449.7   | 419.5 | 431.3 |
| 2014                      | 489.3   | 455.0 | 469.2 |
| 2015                      | 537.3   | 495.3 | 515.3 |
| 2016                      | 595.6   | 549.6 | 571.3 |
| 2017                      | 655.8   | 596.9 | 628.6 |
| 2018                      | 718.4   | 650.9 | 688.2 |
| 2019                      | 787.4   | 708.2 | 753.9 |
| 2020                      | 859.6   | 762.2 | 823.0 |
| 2021                      | 948.0   | 823.4 | 906.3 |

Table D-1

| SBRR Capital Recovery<br>(\$ Millions) |   |                |                          |                  |
|--|---|----------------|--------------------------|------------------|
|  | Capital<br>Requirement<br>Road Property | Total<br>Taxes | Required<br>Cash<br>Flow | Present<br>Value |
| 2011                                   | 113.8                                   | -              | 113.8                    | 110.5            |
| 2012                                   | 277.4                                   | -              | 277.4                    | 249.2            |
| 2013                                   | 280.4                                   | -              | 280.4                    | 226.6            |
| 2014                                   | 291.6                                   | -              | 291.6                    | 212.2            |
| 2015                                   | 308.4                                   | -              | 308.4                    | 202.1            |
| 2016                                   | 317.6                                   | -              | 317.6                    | 187.4            |
| 2017                                   | 328.5                                   | -              | 328.5                    | 174.4            |
| 2018                                   | 338.8                                   | 89.9           | 248.9                    | 119.5            |
| 2019                                   | 350.5                                   | 122.0          | 228.5                    | 98.4             |
| 2020                                   | 363.5                                   | 127.6          | 235.9                    | 91.5             |
| 2021                                   | 216.4                                   | 76.5           | 140.0                    | 50.0             |
|  |   |                | Terminal Value           | 1,188.0          |
|  |   |                | Total                    | 2,909.7          |

Table D-2

| SBRR Total Revenue Requirements<br>(\$ Millions) |                      |                    |                           |
|--|----------------------|--------------------|---------------------------|
| Year   | RPI Capital Recovery | Operating Expenses | SBRR Revenue Requirements |
| 2011   | 113.8                | 86.4               | 200.2                     |
| 2012   | 277.4                | 206.5              | 483.9                     |
| 2013   | 280.4                | 212.9              | 493.2                     |
| 2014   | 291.6                | 220.8              | 512.3                     |
| 2015   | 308.4                | 229.4              | 537.8                     |
| 2016   | 317.6                | 244.0              | 561.6                     |
| 2017   | 328.5                | 261.5              | 590.0                     |
| 2018   | 338.8                | 280.7              | 619.4                     |
| 2019   | 350.5                | 301.0              | 651.4                     |
| 2020   | 363.5                | 321.7              | 685.3                     |
| 2021   | 216.4                | 198.4              | 414.9                     |

Table D-3

| SBRR Discounted Cash Flow Analysis<br>(\$ Millions) |                           |                      |            |               |                       |
|---|---------------------------|----------------------|------------|---------------|-----------------------|
| Year  | SBRR Revenue Requirements | NS Forecast Revenues | Difference | Present Value | Cumulative Difference |
| 2011  | 200.2                     | 154.4                | (45.8)     | (45.8)        | (45.8)                |
| 2012  | 483.9                     | 395.4                | (88.5)     | (79.5)        | (125.3)               |
| 2013  | 493.2                     | 432.5                | (60.7)     | (49.1)        | (174.4)               |
| 2014  | 512.3                     | 470.4                | (41.9)     | (30.5)        | (205.0)               |
| 2015  | 537.8                     | 516.6                | (21.2)     | (13.9)        | (218.9)               |
| 2016  | 561.6                     | 572.5                | 11.0       | 6.5           | (212.4)               |
| 2017  | 590.0                     | 629.8                | 39.8       | 21.2          | (191.2)               |
| 2018  | 619.4                     | 689.5                | 70.0       | 33.5          | (157.7)               |
| 2019  | 651.4                     | 755.1                | 103.7      | 44.7          | (113.0)               |
| 2020  | 685.3                     | 824.1                | 138.8      | 53.8          | (59.2)                |
| 2021  | 414.9                     | 522.3                | 107.4      | 39.2          | (20.0)                |