

209286

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

DUKE ENERGY CORPORATION,

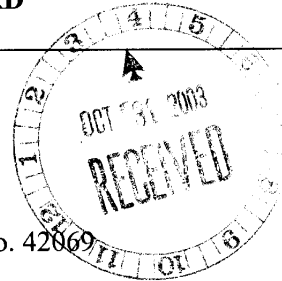
Complainant,

v.

NORFOLK SOUTHERN RAILWAY
COMPANY,

Defendant.

Docket No. 42869



**REPLY OF DUKE ENERGY CORPORATION TO SUPPLEMENTAL
EVIDENCE OF NORFOLK SOUTHERN RAILWAY COMPANY**

PUBLIC VERSION

DUKE ENERGY CORPORATION

By: Paul R. Kinny
Assistant General Counsel
Duke Energy Corporation
Mail Code PB05E
422 South Church Street
Charlotte, NC 28202-1904

ENTERED
Office of Proceedings

OCT 31 2003

Unit of
Public Record

OF COUNSEL:

Slover & Loftus
1224 Seventeenth Street, N.W.
Washington, D.C. 20036

William L. Slover
Robert D. Rosenberg
Christopher A. Mills
Andrew B. Kolesar III
Daniel M. Jaffe
Karen H. Herren
1224 Seventeenth Street, N.W.
Washington, D.C. 20036
(202) 347-7170

Dated: October 31, 2003

Attorneys for Complainant

Table of Contents

	<u>Page</u>
I. SUMMARY	1
II. REROUTED VOLUMES AND REVENUES	3
III. CHANGES IN TRAFFIC FLOWS AND VOLUMES	6
IV. CHANGES IN SARR CONFIGURATION AND IMPACT ON CONSTRUCTION/CAPITAL COSTS	8
A. Off-SARR Facilities South of Belmont	9
B. Changes at Bluefield	9
C. Roanoke Yard	12
D. West Roanoke-Belmont	13
E. Wentz Line	16
F. Summary of Construction/Capital Cost Impacts	18
V. CHANGES IN OPERATING PLAN AND SAVINGS IN OPERATING EXPENSES	18
A. Operational Changes	18
B. Savings in Operating Expenses	20
VI. COMPARISON OF DCF ANALYSES	23
VII. CONCLUSION	24
CERTIFICATE OF SERVICE	25
VERIFICATIONS	
EXHIBIT S-9	

Index of Tables

<u>Table</u>	<u>Title</u>	<u>Page</u>
S-8	Duke and NS Calculation of Impact of Reroutes on Volumes and Revenues	4
S-9	Comparison of Change in ACC Traffic Flows in 2002 That Result From Restoring the Original Routing	7

DUKE ENERGY CORPORATION,
Complainant,
v.
NORFOLK SOUTHERN RAILWAY
COMPANY
Defendant.

Complainant Duke Energy Corporation (“Duke”) hereby replies to the Supplemental Evidence that Defendant Norfolk Southern Railway Company (“NS”) submitted on October 24, 2003, in response to the Board’s order served October 10, 2003 (the “Order”), seeking additional stand-alone cost (“SAC”) evidence on costs and revenues attributable to rerouted non-local or crossover traffic.

Notwithstanding substantial disagreement as to underlying assumptions, Duke and NS adopted the same basic approach in the supplemental evidence (“SE”) that they submitted on October 24, 2003, to calculate the costs and revenues associated with the rerouted crossover traffic for the Appalachia & Carolina Central (“ACC”), Duke’s

stand-alone railroad or “SARR.” Most importantly, Duke and NS reach the same ultimate conclusion: removing the crossover traffic reroutes has very little effect on the ultimate results of the SAC analysis, as the modest reduction in revenues (regardless of whether one uses NS’s proposed enhancement to the modified mileage block prorate (“MMP”) method for determining revenue divisions) is essentially offset by reductions in operating expenses (attributable to the SARR’s hauling the crossover traffic a shorter distance) and/or capital costs.

To be sure, there are significant differences in the details of the parties’ calculations. In particular, NS’s calculations are deficient because they: (1) understate the revenue impact by applying NS’s faulty “enhancement” to the MMP divisions to NS’s understated traffic and revenue projections as discussed in Duke’s Rebuttal Evidence; (2) overstate the changes in capital costs associated with the restoring the original routing, largely because NS overstated the capital costs of the SARR to begin with; and (3) understate the impact of the reduction in the SARR’s ton-miles on its operating expenses, largely because of NS’s reliance on its defective spreadsheet analysis. However, NS’s errors tend to cancel each other out, leaving the net impact at essentially the same immaterial level as calculated under Duke’s analysis.

In the following discussion, Duke will address the various details of NS’s analysis and the discrepancies between NS’s analysis and that presented by Duke, and also demonstrate that Duke’s SE constitutes the best evidence of record in areas addressed with specificity by both parties. In most instances, Duke will present its analysis both with and without the Category 1 reroutes (the traffic destined to and beyond

Greensboro, NC, that Duke originally routed through Winston-Salem, NC, but which NS in 2001 routed through Altavista and Danville, VA). As indicated in Duke's SE, Duke believes there are particularly compelling reasons for retaining the rerouting of at least the Category 1 traffic.

II. REROUTED VOLUMES AND REVENUES

Exhibit S-9¹ and the accompanying electronic workpaper file "Duke NS supplemental reply Ex S-9.xls" present the parties' differences with respect to the volume and revenue impact of restoring the original routing for the rerouted traffic. That information is summarized in Table S-8 below:

¹ The tables and exhibits in this reply are designated as S-_, and are numbered consecutively, starting with the next number after the exhibits and tables in Duke's SE Response filed October 24, 2003.

Duke previously submitted a corrected version of Exhibit S-3 to its SE. In addition, Duke notes that with respect to Table S-5 on page 17 of its SE, in the two columns under "ACC Divisions with Original Routing," the figures for the "Category 1" line should be \$11.13 instead of \$14.14 and 53.4% instead of 67.8%. In the same two columns the figures for the "Total" line should be \$63.00 instead of \$66.01 and 35.7% instead of 37.4%.

Table S-8 Duke and NS Calculation of Impact of Reroutes on Volumes and Revenues			
Line	Source	2002 Volume (million ton-miles)	2002 Revenue (millions)
1	Duke Rebuttal	21,253.5 net	\$605.2
2	Duke SE (Category 1 reroutes retained)	17,466.2 net	\$576.8
3	Duke Reduction (line 1 - line 2) (Category 1 reroutes retained)	3,787.3 net	\$28.4
4	Duke Percentage Reduction (line 3 ÷ line 1) (Category 1 reroutes retained)	17.82%	4.69%
5	Duke SE (orig. Cat. 1 routing restored)	17,264.1 net	\$573.5
6	Duke Reduction (line 1 - line 5) (orig. Cat. 1 routing restored)	3,989.4 net	\$31.7
7	Duke Percentage Reduction (line 6 ÷ line 1) (orig. Cat. 1 routing restored)	18.77%	5.24%
8	NS Reply	35,114.7 gross	\$491.5
9	NS SE	28,410.8 gross	\$461.1
10	NS Reduction (line 8 - line 9)	6,703.9 gross	\$30.4
11	NS Percentage Reduction (line 10 ÷ line 8)	19.09%	6.19%

The above analysis shows that NS calculated a larger decrease in relative volume and a smaller reduction in revenues (although the reduction is larger on a percentage basis because of the other traffic that NS eliminated from the ACC's traffic group in 2002) associated with restoring the original routing. Indeed, NS calculated a total of 13.02 million rerouted tons, whereas Duke calculated 12.26 million tons (retaining the Category 1 reroutes) and 13.92 million tons (also restoring the original routing for the Category 1 traffic).

NS SE at 2-4 claims that the volume and revenues associated with the rerouted traffic do not need to be addressed further because NS provided a definitive treatment with its Reply Evidence. However, NS's earlier analysis is incomplete and thus deficient in several key respects. In particular, NS's analysis is based on its erroneous tonnage and revenue projections that Duke addressed on Rebuttal.² NS's calculation, by NS's own admission (NS SE at 20 n.13), also ignores NS's 1.3% overstatement in the SARR's total revenues associated with NS's misreporting of the revenues on the coal movement from { } and other errors. By overstating those revenues, NS in turn overstates the impact of eliminating the rerouting on those revenues, whereas Duke's correct for this error on NS's part. Duke Rebuttal Narrative ("Duke Reb.") at III-A-44.

NS's claim (NS SE at 4) that Duke effectively endorsed NS's alternate analysis (utilizing the \$35.4 million figure resulting under the MMP method without NS's "enhancement") is a distortion. Duke's position (Duke Reb. at III-A-72 to 73) was that if one were to eliminate the reroutes as NS suggested, then the larger figure (which excluded the NS "enhancement") should be utilized. Duke did not purport to submit an independent analysis at that time, as it has now done in its SE, utilizing the traffic information it presented on Rebuttal. Duke's purpose in incorporating the NS figure in Duke's earlier alternate analysis was only to show that the impact of eliminating the

² NS's comparative analysis reflects the selective (and largely subjective, as Duke demonstrated on Rebuttal) volume reductions that NS submitted with its Reply Evidence and noted in its SE at 3n3. As Duke's figures reflect the additional information belatedly disclosed by NS, Duke's figures constitute the best evidence of record.

revenues from the rerouted traffic (even without reducing any of the associated costs) was relatively small, a claim that is confirmed by both parties' SE. In any event, to apply NS's earlier differential analysis to an altered traffic base plainly results in a mismatch.

In addition, NS claims in its SE at 21 n.15 that the correct figure is not the \$31.2 million shown in NS Reply III-A-58 and accompanying workpaper "rev ACC Appendix 1.xls." but instead the \$30.4 million supposedly shown in NS Reply III.A Elec. WP "NS contractrevprojtariffsmarshallrevisedreroute corrected.xls." However, that spreadsheet also contains the \$31.2 million calculation. NS's \$30.4 million figure does not appear on the latter workpaper and can only be discerned by summing one column and subtracting that figure from the sum of another column.³

In short, as between the two calculations of the impact of the rerouting on volume and revenues, Duke's presentation plainly constitutes the best evidence of record as it properly reflects the traffic information that NS disclosed only after Duke submitted its Opening Evidence. Duke's treatment also reflects the true revenues on the {
} movement, whereas NS's does not.

III. CHANGES IN TRAFFIC FLOWS AND VOLUMES

The modest differences in volumes affected by the reroutes yield modest differences in the changes in traffic flows over various ACC line segments. These

³ NS SE at 3 n.4 repeats an earlier claim that "NS discovered Duke's rerouting error too late" to present a full analysis of it. As Duke explained its reroutes in its June 11, 2002 letter and NS did not submit its Reply Evidence until September 30, 2002, NS plainly had ample time to address the matter as it desired.

differences, expressed both in millions of ton-miles and average numbers of loaded trains per day, are shown in Table S-9 below.⁴

Table S-9 Comparison of Change in ACC Traffic Flows in 2002 That Result From Restoring the Original Routing					
Loaded Segment		Duke SE		NS SE	
Start ^{1/}	End ^{1/}	MM Net Tons Per Mile (Year)	Average Loaded Trains/ Day	MM Gross Tons Per Mile (Year)	Average Loaded Trains/Day
Appalachia	St. Paul	(2.24)	(0.6)	(5.64)	(0.5)
St. Paul	Bluefield	2.35	0.6	4.85	0.8
Bluefield	W. Roanoke	(12.26)	(3.4)	20.49	(3.2)
W. Roanoke	Winston-Salem	(13.93)	(3.9)	(24.20)	(3.7)
W. Roanoke (w/ Cat. 1)	Winston-Salem	(12.26)	(3.4)	--	--
Winston-Salem	Barber	(12.27)	(3.4)	(21.17)	(3.2)
Barber	Belmont	(11.59)	(3.2)	(20.26)	(3.1)
^{1/} Loaded trains move in both directions between Appalachia and St. Paul and between St. Paul and Bluefield. Tonnage and daily train figures shown are the maximum for any portion of the segment.					

As shown in Table S-9, the differences between Duke and NS as to the changes in traffic flows and daily loaded train counts are very minor.

⁴ NS's SE electronic workpaper "Comparison of OPSTATS.xls" contains the gross tons and number of trains by NS line segment with and without the rerouted traffic, but does not show the difference. Therefore, Duke added two columns to NS's spreadsheet in order to calculate the NS figures shown in Table S-9. See electronic workpaper "Comparison of OPSTATS with differences.xls" accompanying this Reply filing.

IV. CHANGES IN SARR CONFIGURATION AND IMPACT ON CONSTRUCTION/CAPITAL COSTS

Like Duke, NS recognizes the need to make some changes to the SARR's configuration if the original routings are restored. Indeed, Duke and NS agree on many of the basic changes, but not on all details of the changes and certainly not on their cost impact. NS's changes, which were more comprehensive than Duke's, ultimately result in a \$49.8 million reduction in construction or capital costs (using NS's inflated designs and unit costs).⁵ Duke's changes, which were very conservative and did not purport to quantify many of the capital costs that would be saved by restoring the original routings, result in a \$1.1 million net increase in capital costs.⁶ Duke recognizes the need to treat the configuration modifications and associated capital costs consistently with the resolution of other SARR configuration and expense issues.

The individual configuration changes and associated costs are addressed below.

⁵ As described below, NS also sought to saddle the SARR with facilities for which there is no need if the original routing for the rerouted crossover traffic is restored.

⁶ Duke did not attempt to quantify savings for such matters as elimination of the CTC system south of Belews Creek and the elimination of seven passing sidings between West Roanoke and Belmont. Duke's SE simply cited several examples of the savings that would result from restoring the original routing for the rerouted traffic, including elimination of three of the four passing sidings and the CTC system between Barber and Belmont. Duke agrees with NS that the CTC system could also be eliminated between Belews Creek and Barber and that a total of at least seven passing sidings could be eliminated between West Roanoke and Belmont.

A. Off-SARR Facilities South of Belmont

Of NS's claimed \$49.8 million in construction cost savings attributable to eliminating the reroutes on crossover traffic, \$30.1 million -- or over 60% -- results from eliminating the off-SARR improvements on the residual NS south of Belmont. NS SE at 10-11. Duke's position is that such upgrades are not properly the SARR's responsibility (notwithstanding TMPA), that NS has overstated both the need for these upgrades as well as their associated cost, and that at most one additional passing siding at a cost of \$2.85 million would be warranted if the reroutes were retained for the Categories 2 and 3 traffic. Duke SE at 25.

However, if the reroutes for Categories 2 and 3 are eliminated, both parties agree that any possible need for the upgrades dissipates. The reason is that the crossover traffic would be interchanged to NS at St. Paul and Appalachia rather than Belmont.

B. Changes at Bluefield

Like Duke, NS recognizes both the need for modifications at Bluefield to permit Category 2 trains arriving from the north via Bluefield to move west onto the Wentz line and that construction of a head-on connection is not a viable solution.⁷ However, NS wrongly concludes that four miles of the original 12 miles of triple-track proposed in NS's Reply Evidence are required to accommodate the run-around of locomotives for the trains moving between mines north of Bluefield and points on the Wentz line as well as other activities (the ACC's delivery of coal traffic to Glen Lyn and

⁷ Existing buildings, highway grade separations and natural barriers would make a head-on connection between the ACC main line and the Wentz line in the northwest quadrant extremely expensive.

Celco, VA, and the return of helper locomotives from Bluefield to Welch). In contrast, Duke proposes to add one 7,000-foot siding with two turnouts on the main line just east of the connection between the main line and the Wentz line.

Duke's Witness Lyman has reviewed NS's explanations for retaining four miles of triple track east of Bluefield and concluded that they are deficient – and that these facilities are excessive if the original routing is restored for the Categories 2 and 3 traffic.⁸ First, NS has overlooked the fact that the ACC will operate its trains in a distributed-power (“DP”) configuration, with locomotives at both ends. Consequently, there will be no need for runaround operations at Bluefield (which involve repositioning locomotives from one end of the train to the other). Instead, the crew will simply switch to the other end of the train, after which the train will resume movement in the opposite direction. The new 7,000-foot siding is plainly adequate for this purpose, and will keep the train clear of the main line while the crew is changing ends.

Nor is any triple track needed for the Glyn Lyn and Celco unloading operations. The ACC has a three-track ladder siding just east of Glen Lyn and a 14,000-foot passing siding at Celco (near Narrows, VA). See Duke Reb. at III-B-15 and Exhibit III-B-3, pages 31N and 32N. Two of the three ladder tracks near Glen Lyn were added on Rebuttal to facilitate the delivery of coal to these facilities, and they are more than adequate for the specified staging. In fact, they are superior to adding another main track

⁸ Mr. Lyman believes triple track is unnecessary even if the Categories 2 and 3 reroutes are retained. The total daily traffic volume moving through Bluefield with the reroutes is 34.2 trains or 17.1 in each direction. The ACC's combination of 43.8 miles of continuous, CTC-equipped double track in the Bluefield area plus frequent passing sidings east of Bluefield is adequate for this daily traffic volume.

near Bluefield because they are located closer to the destination plants and can hold trains clear of the main line.

Similarly, there is no need for any additional trackage at Bluefield to accommodate helpers removed from eastbound loaded trains. After being removed from eastward trains, helpers would immediately return to Welch (MP 398.1), which is the beginning of the helper district, in order to be ready to assist other eastward loaded trains. Mr. Lyman inserted a crossover between the two main tracks just west of Bluefield to help facilitate this process. Moreover, to the extent a helper cannot return immediately to Welch due to the presence of other trains, it can be placed briefly on the existing 1,010-foot setout track at MP 366.8 (half a mile west of Bluefield, and east of the FED at MP 369.0; see Duke Reb. Exhibit III-B-3, page 11N). Neither additional main track nor a separate setout track for helpers is needed at Bluefield.

Otherwise, there is simply not enough traffic density east of Bluefield to justify any triple main track. As shown in Exhibit S-5 of Duke's SE, the average number of daily trains operating between Bluefield and West Roanoke if the original routing is restored for Categories 2 and 3 traffic is a maximum of 27.6 (total in both directions). This equates to 13.8 trains on each main track. Other railroads Mr. Lyman has been associated with operate more than 28 trains a day on single-track configurations with appropriately-spaced passing sidings and CTC. The ACC as configured by Mr. Lyman has 43.8 miles of continuous double track extending from 31.8 miles west of Bluefield to

12.0 miles east of Bluefield, plus two passing sidings within the next 14 miles to the east, as well as CTC.⁹

In short, the ACC's mainline configuration in the Bluefield area has more than sufficient capacity to accommodate the traffic remaining after restoration of the original routing for the Categories 2 and 3 traffic (as well as adequate capacity to handle the slightly higher traffic density if the Categories 2 and 3 reroutes are retained). NS has not shown why any triple track is needed east of Bluefield given Duke's addition of a 7,000-foot siding to accommodate the reversal of direction by trains operating between points north of Bluefield and points on the Wentz line and the facilities available to accommodate helpers and the delivery of coal traffic to the Glen Lyn and Celco facilities.

C. Roanoke Yard

NS SE at 7 to 8 determined that two 7,000-foot yard tracks could be eliminated at the ACC's West Roanoke yard. Duke also concluded that the facilities at the yard could also be reduced, but did not attempt to quantify the impact because of the lack of time to perform a detailed capacity analysis to determine the impact of various changes on the fluidity of operations.¹⁰ Duke SE at 24-25.

⁹ See Duke Reb. Exhibit III-B-3, page 11N and Exhibit S-III-B-3, page 31N included with Duke's SE.

¹⁰ Trains carrying the Category 1 traffic would continue to move to and through West Roanoke regardless of whether the original routing were restored, so the routing of this traffic does not affect the ACC's ability to reduce its facilities at West Roanoke due to restoration of the original routing for Categories 2 and 3 traffic.

D. West Roanoke-Belmont

NS determined that restoring the original routing would permit the following changes for the SARR between West Roanoke and Belmont: elimination of seven passing sidings (three to the north of Belews Creek and four to the south, for a total of 11.36 miles); reducing the Winston-Salem yard to a single 7,700-foot track; retaining a single 7,000-foot siding at Belmont, NC to stage trains moving to and from the Allen plant; and eliminating the CTC system south of Belews Creek, a distance of 115 miles that could instead be controlled by track warrants. NS SE at 9-10.

Because of the impossibility, noted supra, of conducting a thorough capacity analysis in the limited time available, Duke did not purport to engage in as thorough a review, but nonetheless determined that the facilities that could be eliminated or reduced included: the entire yard at Belmont (not even a single siding is required to stage trains to and from Allen); the 1.6-mile siding at Charlotte; the turnout and connection with NS at Catawba (not addressed by NS); at least two of the three 1.6-mile passing sidings south of Barber; and additional sidings as well. Duke quantified \$2.1 million in savings (for Belmont, Charlotte, and Catawba). Duke also indicated that the CTC system could be eliminated south of Barber.

Duke's Witness Lyman concurs that at least seven of the 15 passing sidings south of West Roanoke could be eliminated as a result of restoring the original routing for the Categories 2 and 3 traffic,¹¹ and that the CTC system could be eliminated south of

¹¹ If the Category 1 rerouting is retained, the result would be to add 0.5 loaded trains per day, or one loaded train every other day, between West Roanoke and Winston-Salem. This small additional volume would not affect the siding configuration.

Belews Creek. Mr. Lyman disagrees that any siding is needed at Winston-Salem regardless of whether the Category 1 reroutes are retained. NS proposed a yard at Winston Salem for both interchanges and car inspections (see NS SE at 9). However, as demonstrated in Duke Reb. at III-C-27 to 28, there is no need to conduct any car inspections at Winston-Salem, and the interchange volume is relatively small (about 1.9 million tons annually) even with the Category 1 reroutes. If the original routing were restored for the Category 1 traffic, the interchange volume at Winston-Salem would drop to only 265,000 tons annually. This equals 25 trains, or one train every two weeks.

Similarly, the interchange volume remaining at Charlotte if the Categories 2 and 3 reroutes were eliminated is only 214,000 tons or 20 trains annually. This obviously is not enough volume to warrant an interchange siding at Charlotte.

Mr. Lyman also disagrees that a siding needs to be retained at Belmont to stage trains moving to and from the Allen plant. The annual volume moving to the Allen plant (the only traffic moving south of Charlotte) is 2.45 million tons annually, or only 0.7 loaded trains per day. Thus Allen volume amounts to an average of 1.4 trains per day in both directions. The need for passing sidings south of Barber is minimal given this volume, and the one siding both parties agree should be retained would certainly suffice. Usually, one loaded train would traverse the line between Belmont and Barber every other day and the returning empty train would traverse the segment on the day that the loaded train does not operate. This means that a round-trip train hauling coal to the Allen plant does not have to meet itself. A siding is needed only because some of the time there will be more than one loaded (or empty) Allen train operating on the same day. One siding

between Barber and Belmont would easily accommodate the rare “meet” between a loaded train and an empty train south of Barber.¹²

Mr. Lyman also disagrees with NS’s statement, in footnote 11 on page 18 of its SE, that average transit times would not be likely to change – particularly south of West Roanoke – if the original routing for Categories 2 and 3 traffic were restored. For example, NS has indicated that more than half of the daily train counts would be removed between Belews Creek and Barber, yet less than half the passing track capacity would be removed. This effectively increases the capacity.

Moreover, elimination of the CTC system and power switches south of Belews Creek¹³ in favor of a track warrant system will not increase transit times, particularly given the substantial reduction in traffic volume. Track warrants are issued by the dispatcher to the train crews by radio; trains do not have to stop to receive train movement orders or track warrants instructing them when and where to enter a siding to meet an opposing train. The absence of remotely-controlled power switches is not an

¹² In fact, the ACC could avoid the need for even one passing siding south of Barber because the trackage in the vicinity of the Allen plant is sufficient to accommodate two trains at the same time by staging the second loaded train on the three-mile lead from the ACC main line to the plant. The track layout at the Allen plant itself is such that after a train is unloaded, the empty cars can be placed in the three “empty” tracks beyond the car dumper and the staged (loaded) train can be placed in track nos. 2, 3 and 4, which are customarily used for loaded cars. (The unloading operations at Allen are described in Duke Op. Workpapers Vol. 6, p. 02937; a schematic showing the track layout at the plant is included immediately following page 02964.) Following placement of the second loaded train, the empty train would be assembled, receive the obligatory air test and depart, following which unloading of the second train would commence.

¹³ Mr. Lyman concurs with NS (SE at 10) that an automatic interlocking would still be desirable at Barber.

issue because Duke's experts have equipped the ACC with directional spring switches in non-CTC territory so that trains in both directions always enter the siding area on straight track and exit the siding through a trailing-point spring switch.¹⁴ After the train exits the siding, the spring switch returns to its normal position. Thus, train crews do not have to manually align switches in this type of operation.

E. Wentz Line

NS claims (SE at 12) that the SARR would require an additional passing siding between Bluefield and Carbo, VA (located east of St. Paul) because of the net increase in traffic volume moving over this segment.

Duke disagrees for the reasons stated at Duke SE 22-23. The Bluefield-St. Paul segment is only 76.6 miles long, has CTC throughout, has a 4-mile double track segment and three passing sidings, and will handle 1.4 fewer eastbound loaded trains a day requiring helper service. As the 20% increase cited by NS amounts to only 0.6 loaded trains per day, the reroutes will increase the total train count (loaded and empty) to 8.6 trains per day or 4.3 in each direction. Given that the segment already has one section of double track and three passing sidings, the existing facilities should be more than adequate to avoid conflicts, as shown in "Wentz line capacity.xls" included in Duke's SE.

An alternative, simplified analysis confirms this. Assuming the track is available for 22 hours per day, there will be an average of one train in each direction past

¹⁴ See Duke Op. Narrative at III-B-15 to 16 and III-C-27 to 28. NS accepted the use of directional spring switches in the ACC's track warrant territory.

a given point only once every 5 hours.¹⁵ If the trains conservatively average 20 miles per hour, they will traverse the 76.6-mile segment between Bluefield and St. Paul in just under 4 hours, meaning they are unlikely to meet more than 2 trains (and may well only meet one) on a given trip.

Under the circumstances, there is no need for any additional passing sidings on the portion of the Wentz line between Bluefield and Carbo or St. Paul.

NS proposes to add an interchange track at St. Paul as interchange traffic would increase “exponentially.” NS SE at 12.¹⁶ Significantly, Duke proposed to add a two-track interchange yard at St. Paul, equivalent to what it had proposed for Belmont. Duke SE at 23-24 and 26. Duke also added an additional track to facilitate train inspections (and any required locomotive fueling) for Category 2 trains that will not pass through Kenova or West Roanoke.

NS (SE at 13) proposes to conduct those car inspections and fueling at Devon, WV (for which NS would add one 1,400-foot inspection/setout track). NS’s specification of Devon for this purpose makes no sense because trains moving between St. Paul and the Wharncliffe, Elmore West, and Elmore North Branches will not pass through Devon. St. Paul is a more logical place to conduct the inspections, which can be performed anywhere so long as the accumulated miles between inspections are within FRA regulations. In any event, the third yard track Duke added at St. Paul for car

¹⁵ Twenty-two hours per day divided by 4.3 trains per day equals one train every 5.1 hours.

¹⁶ NS calculates the total St. Paul interchange volume at 13.2 million tons, whereas Duke’s figure is 14.3 million tons.

inspections is more than equivalent to the single (shorter) track NS proposes to add at Devon for the same purpose.

F. Summary of Construction/Capital Cost Impacts

While NS's claimed construction/capital cost savings from eliminating the reroutes are much larger than those of Duke (largely because Duke did not attempt to quantify all of the facilities and cost savings likely to accrue), NS's calculations are unsound. Over half of the claimed savings rests on off-SARR costs that would not be needed even with the reroutes and that reflect bloated unit costs in any event. The remainder of NS's claimed savings also reflect NS's bloated unit costs; the actual cost savings should reflect the Board's reconciliation of the parties' different construction techniques and unit costs for various items. Duke's proposed facilities for the increased interchange volume at St. Paul and Appalachia and its proposed track addition at Bluefield are demonstrably adequate if not actually superior to those proposed by NS.

V. CHANGES IN OPERATING PLAN AND SAVINGS IN OPERATING EXPENSES

A. Operational Changes

NS identified few operational changes that would be required if the reroutes for the crossover traffic were eliminated.

As noted supra, NS proposed to conduct car inspections at Devon for trains that do not pass through Kenova or West Roanoke, but, as also explained supra, Duke's selection of St. Paul for such activities makes far more sense because the Category 2 trains originating on the Wharnccliffe, Elmore North, and Elmore West Branches moving

to St. Paul (and beyond) do not pass through Devon. The additional location for inspection (and locomotive fueling, in Duke's case) does not alter the costs as staff would simply be relocated from West Roanoke (see, e.g., NS SE at 17). However, even locating the activities at St. Paul would still yield some savings as Category 3 trains originating on the Wentz line and exiting the ACC system at Appalachia or St. Paul would not need to be inspected at all.

NS SE at 15 also indicates that "[t]he number of helper locomotives required by the ACC would not change" and that the number of helper units and associated crew assignments that NS proposed on Reply for the Finney-Honaker, VA segment on the Wentz line would remain "sufficient." NS's comments are uninformed and incorrect because, as noted in Duke SE at 22-23, the rerouting of the Category 2 and 3 traffic reduces "the number of such trains requiring helper assistance from an average of 3.7 trains per day to 2.3 trains per day," which amounts to a 37.8% decrease.¹⁷

While Duke treated operating managers, general and administrative costs, and ad valorem taxes as fixed, NS calculated a loss of one director and one manager of coal operations from the bloated transportation staff it posited on Reply. Duke SE at 19; NS SE at 17.

NS did not discuss the need for additional crew districts between St. Paul and Devon and between St. Paul and Elmore (see Duke SE at 28), although there is no cost impact associated with the additional crew districts for the Category 2 trains.

¹⁷ The Category 3 trains do not travel between St. Paul and Bluefield at all, and the loaded Category 2 trains traverse the segment in the westbound direction and thus do not need helpers.

B. Savings in Operating Expenses

NS calculated its savings in operating expenses as well as various service units by utilizing the “spreadsheet” previously presented by its Witness Fisher. NS SE at 17.¹⁸ In contrast, Duke calculated its savings based on the reduction in ton-miles (excluding the fixed expenses from the analysis altogether). Duke SE at 19-20. Notwithstanding the different approaches, NS and Duke calculated essentially identical savings in operating expenses for 2002 (\$22.3 million for NS, and \$19.8 million for Duke with only the Category 1 reroutes and \$20.9 million with no reroutes). However, NS’s total operating expenses are more than double those of Duke, and so the percentage reduction in the NS Duke total operating expenses (7.45%) is roughly only about half the percentage reduction in Duke’s operating expenses (14.57% and 15.38%).

NS’s use of the revised spreadsheet is not well-explained, but NS purports to rely on the assumption that the transit times over any given segment would not change significantly from what NS calculated earlier because NS changed the facilities “commensurately” with the change in traffic and there was not sufficient time to perform a capacity analysis. NS SE at 18 n.11. Duke addressed this subject in the preceding section of this Reply. Duke has also noted that there was not sufficient time to perform a capacity analysis (and that any additional delay would be intolerable). Duke SE at 9-11.

¹⁸NS also claimed to have modified the inputs to its spreadsheet that computes the SARR’s maintenance of way expenses, but these changes are not explained. (It appears that NS modified the track miles and the densities used in its calculations, which impacted the costs.)

In any event, NS's spreadsheet analysis can be no better than the underlying assumptions. As Duke explained in its Rebuttal Evidence, NS's failure to share or submit its RDCAM model into evidence means that its initial spreadsheet and underlying capacity/operating statistics analysis ostensibly premised on the RDCAM model cannot be validated. As the basic spreadsheet analysis cannot be validated, its application to the effects of restoring the original routing for the rerouted crossover traffic also cannot be credited.

As noted supra, Duke strongly objects to NS's facile assumption that transit times would remain unchanged over the segments affected by eliminating the reroutes. NS's apparent theory is that transit time improvements on the Bluefield-West Roanoke and West Roanoke-Belmont segments would be limited, particularly because of the elimination of CTC south of Belews Creek, and that any such savings would be offset by increased congestion between Bluefield and St. Paul. NS SE at 18 n.11.

However, as explained supra, any congestion east of Bluefield and south of West Roanoke will be mitigated, regardless of whether CTC is eliminated. Furthermore, the net increase in volume between Bluefield and St. Paul is quite limited (only an additional 0.6 loaded trains per day), and is somewhat offset by the reduction of 1.4 eastbound loaded trains per day requiring helper assistance between Finney and Honaker. The modest traffic increase is not sufficient to create difficulties in light of the double-track and three passing sidings (plus CTC) already in place along the segment. Moreover, in terms of impact on average transit times, any increase in transit times between Bluefield and St. Paul would be dwarfed by decreased transit times on the main line

between Bluefield and West Roanoke, which is 37% longer than the Bluefield-St. Paul segment and handles nearly three times the tonnage, even after the rerouted traffic is returned to its original routing.¹⁹

There is thus substantial reason (even under the factors cited in NS's own analysis) to conclude that transit times would be significantly enhanced by restoration of the original routing. While Duke, like NS, did not attempt to calculate the resulting improvements, that was because of the lack of time, and NS's assumption that transit times would be unaffected is totally unsupported and should be rejected.

In contrast to NS's defective spreadsheet analysis, Duke adjusted the non-fixed operating costs on the basis of the reduction in ton-miles, which reflected the associated savings in locomotives, fuel, crews, cars, and other operating cost factors. Duke SE at 19-20. Duke explained that the use of an aggregate adjustment was appropriate because the costs were developed on an aggregate basis.

Duke's resulting analysis yields an across-the-board reduction in operating costs of 14.57% to 15.38% (based on a reduction in net ton-miles of 17.82% to 18.77%), as contrasted with NS's modest reduction in total operating costs of 7.45% (to be contrasted with NS's 19.09% reduction in gross ton miles). Duke's calculated reduction is far more realistic. For example, NS's 8.6% reduction for T&E crew personnel is only 45% of its reduction in gross ton-miles, and its 11.0% reduction in locomotives is only 58% of its gross ton-miles reduction.

¹⁹ The decrease in traffic between Bluefield and West Roanoke is substantial under the original-routing scenario for Categories 2 and 3 traffic – an average of 6.8 trains per day (total in both directions). See Duke SE Exhibit S-5 and Table S-9, supra.

In short, as between the two calculations of savings in operating costs, Duke's analysis is inherently far more plausible and probative, particularly as NS's analysis, based as it is on a capacity model that is not part of the record evidence, cannot be credited at all. Duke's analysis thus constitutes the best evidence of record. Nonetheless, if the Board were somehow to adopt NS's basic analysis for operating costs, it would likely be necessary either to adopt NS's analysis of the impact of the rerouting on those operating costs as well, or to apply the across-the board reduction to NS's total operating costs based on the reduction in NS's gross ton miles.

VI. COMPARISON OF DCF ANALYSES

Notwithstanding the differences in their revenues, capital costs, and operating costs associated with restoring the original routing on the crossover traffic, NS and Duke both show very little net change in their DCF analyses. In substantial part, the modest differences net themselves out. Duke was left with a modest increase in the percentage reduction in the first year (0.6% in 1Q01 as applied to the new tariff rates with the Category 1 reroutes retained), while NS's calculations indicate a 1.3% reduction in the cumulative present value of the amount by which SARR costs exceed revenues.²⁰

²⁰ NS's analysis shows that the reduction in revenues is less than the reduction in total stand-alone costs, meaning that eliminating the reroutes increases the net contribution from the affected traffic (even after application of NS's "enhancement" to the MMP method). In contrast, Duke's analysis (which reflects a minor increase in capital costs as opposed to NS's \$49.8 million decrease) yielded a small reduction in contribution that nonetheless translated into the modest increase in the SAC relief after application of the percentage reduction method.

Significantly, both parties concluded that eliminating the reroutes ultimately does not make a material difference in the SAC outcome.

VII. CONCLUSION

The Board's Order instructed both parties to submit evidence concerning the costs and revenues associated with the rerouted crossover traffic. Both parties did so in their SE filings dated October 24, 2003, using basically similar methods and, despite a number of differences in details, reached the same ultimate conclusion: the costs and revenues associated with the rerouted crossover traffic essentially offset each other, such that eliminating the crossover reroutes has no material impact on the ultimate SAC outcome. Accordingly, the Board should proceed to issue its decision on the merits no later than November 6, 2003.

Respectfully submitted,

DUKE ENERGY CORPORATION

By: Paul R. Kinny
Assistant General Counsel
Duke Energy Corporation
Mail Code PB05E
422 South Church Street
Charlotte, NC 28202-1904

William L. Slover
Robert D. Rosenberg 
Christopher A. Mills
Andrew B. Kolesar III
Daniel M. Jaffe
Karen H. Herren
1224 Seventeenth Street, N.W.
Washington, D.C. 20036
(202) 347-7170

OF COUNSEL:

Slover & Loftus
1224 Seventeenth Street, N.W.
Washington, D.C. 20036

Dated: October 31, 2003

Attorneys for Complainant

CERTIFICATE OF SERVICE

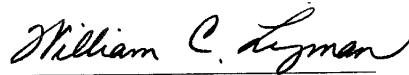
I hereby certify that on October 31, 2003, I caused five copies of the foregoing Reply of Complainant Duke Energy Corporation (together with associated exhibits and workpapers) to be served by hand upon the following counsel for Defendant Norfolk Southern Railway Company:

G. Paul Moates, Esq.
Paul A. Hemmersbaugh, Esq.
Sidley Austin Brown & Wood
1501 K Street, N.W.
Washington, D.C. 20005


Karen Hassell Herren

VERIFICATION

I, William C. Lyman, verify under penalty of perjury that I am the same William C. Lyman whose Statement of Qualifications appears in Part IV of the Narrative portion of Duke Energy Corporation's Opening Evidence in this proceeding; that I am responsible for the portions of the foregoing Reply of Duke Energy Corporation to Supplemental Evidence of Norfolk Southern Railway Company related to the changes in the stand-alone railroad's facilities and operating plan (including train transit times) that would result from restoring the original route for certain crossover coal traffic that Duke rerouted for purposes of its earlier evidentiary submissions in this case; that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



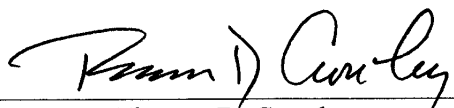
William C. Lyman

Executed on: October 29, 2003

VERIFICATION

STATE OF VIRGINIA)
)
CITY OF ALEXANDRIA)

Thomas D. Crowley, being duly sworn, deposes and says that he is the same Thomas D. Crowley whose Statement of Qualifications appears in Part IV of the Narrative portion of Duke Energy Corporation's Opening Evidence in this proceeding; that he is responsible for the portions of the foregoing Reply of Duke Energy Corporation to Supplemental Evidence of Norfolk Southern Railway Company related to the changes in the stand-alone railroad's traffic flows, daily train counts, and revenues, and in the DCF Model, that would result from restoring the original route for certain crossover coal traffic that Duke rerouted for purposes of its earlier evidentiary submissions in this case; and that he knows the contents thereof and that the same are true as stated to the best of his knowledge, information and belief.



Thomas D. Crowley

Sworn to and subscribed before me
this 29 day of October, 2003



Notary Public for the State of Virginia

My Commission expires 12/30/2003

COMPARISON OF DUKE SUPPLEMENTAL EVIDENCE WITH NS SUPPLEMENTAL EVIDENCE

Item (1)	Duke (Base case - tariff revenues)						NS (Base case) 9/			
	Rebuttal (2)	Revised		Reduction (amount)		Reduction (%)	Reply (9)	Revised		Reduction % 8/ (12)
		incl. WS 1/ (3)	excl. WS 2/ (4)	incl. WS 3/ (5)	excl. WS 4/ (6)			excl. WS 2/ (10)	Amount 7/ (11)	
1. Investment (millions)	\$2,246.3	\$2,247.4	\$2,247.4	(\$1.1)	(\$1.1)	-0.05%	\$5,236.2	\$5,186.4	\$49.8	0.95%
2. 2002 Annual Operating Costs (millions)	\$135.9	\$116.1	\$115.0	\$19.8	\$20.9	14.57%	\$299.3	\$277.0	\$22.3	7.45%
3. 2002 Ton-Miles (millions)										
a. Net Ton-miles (Duke)	21,253.5	17,466.2	17,264.1	3,787.3	3,989.4	17.82%	35,114.7	28,410.8	6,703.9	19.09%
b. Gross Ton-miles (NS)						18.77%				
4. 2002 Revenue (millions)	\$605.2	\$576.8	\$573.5	\$28.4	\$31.7	4.69%	\$491.5	\$461.1	\$30.4	6.19%
5. 2002 Re-routed Tons (millions)				12.26	13.92					13.02

1/ Winston Salem re-routes are part of ACC
2/ Winston Salem re-routes are not part of ACC

3/ Column (2) - Column (3)

4/ Column (2) - Column (4)

5/ Column (5) / Column (2)

6/ Column (6) / Column (2)

7/ Column (9) - Column (10)

8/ Column (11) / Column (9)

9/ NS submitted a base case and an alternative case with respect to traffic and revenues. The base case assumed higher tonnage levels than the alternative case (the difference was in the forecasting of tons) and was the scenario primarily discussed in NS's Supplemental Evidence.