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## SURFACE TRANSPORTATION BOARD

### DECISION

STB Docket No. 42054

PPL MONTANA, LLC

v.

THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY

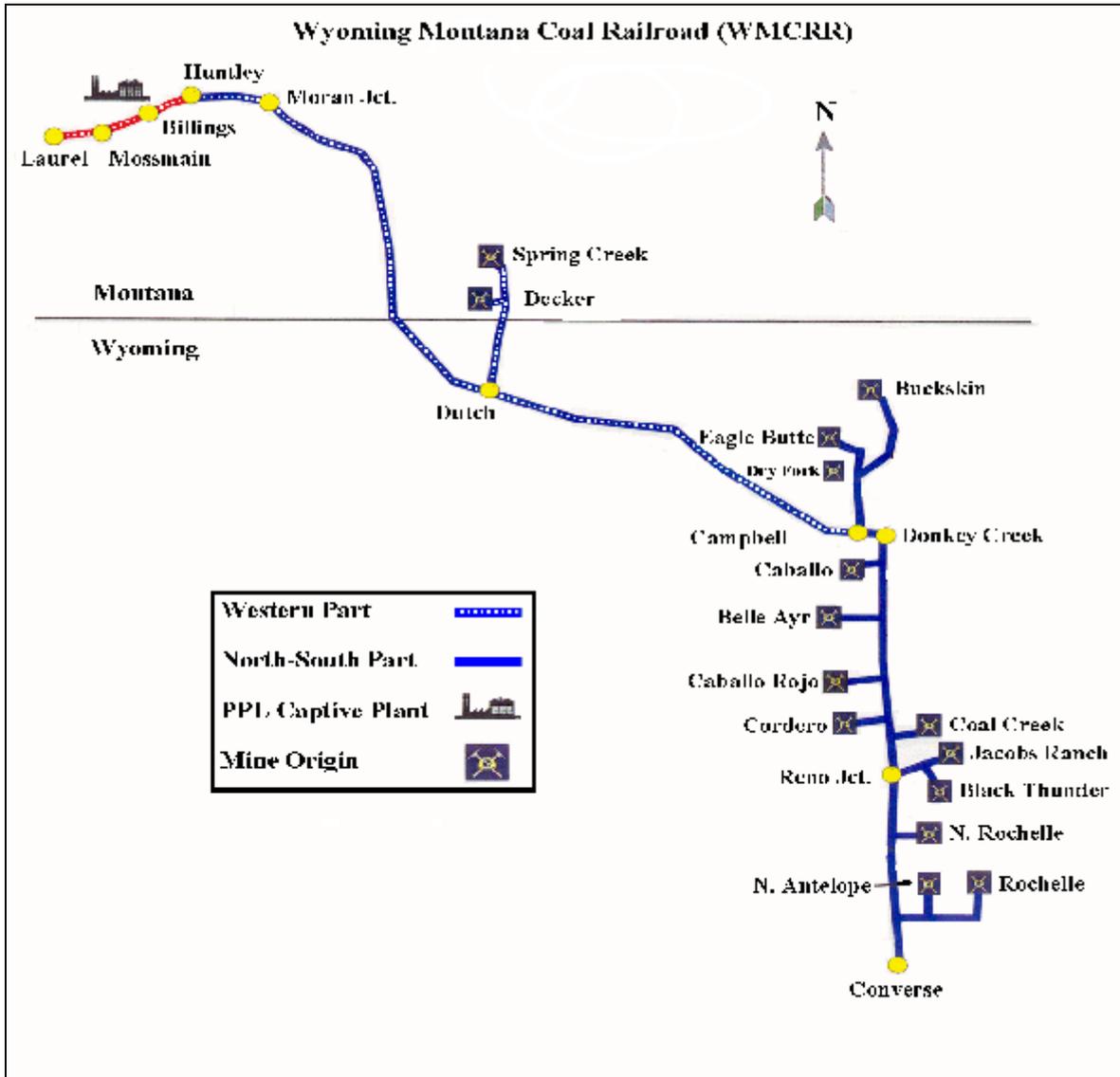
Decided: August 30, 2004

In this proceeding PPL Montana, LLC (PPL) has challenged the reasonableness of rates charged by The Burlington Northern and Santa Fe Railway Company (BNSF) for trainload movements of coal from 17 mines located in the Powder River Basin (PRB) of Wyoming and Montana to PPL's Corette electricity generating facility at Billings, MT. In a decision served August 20, 2002 (PPL 2002), the Board found that PPL's "stand-alone cost" (SAC) presentation was fatally flawed because it relied on shifting costs of lines and facilities needed by PPL onto traffic that would not use those lines or facilities. In a subsequent decision served March 24, 2003 (PPL 2003), the Board reopened this proceeding for the limited purpose of better estimating those operating expenses that should be taken into account in that threshold cross-subsidy determination. In this decision, the Board finds that the supplemental evidence submitted by PPL does not change the Board's earlier conclusion that PPL's SAC presentation reflects an impermissible cross-subsidization of the PPL traffic and that PPL has therefore failed to demonstrate that the challenged rates are unreasonably high.

### BACKGROUND

PPL challenged the reasonableness of BNSF's rates using the Board's stand-alone cost test. A SAC analysis seeks to determine the lowest costs at which a hypothetical, optimally efficient carrier could provide the service at issue. A complainant hypothesizes a "stand-alone railroad" (SARR) to serve an identified traffic group using the optimum physical plant or rail system needed for that traffic. Under the SAC constraint, the rate at issue cannot be higher than what the SARR would need to charge for that traffic while covering all of its costs, including a reasonable return on investment. See generally Duke Energy Corp. v. CSX Transp., Inc., STB Docket No. 42070 (STB served Feb. 4, 2004) at 10-13; Coal Rate Guidelines, Nationwide, 1 I.C.C.2d 520 (1985) (Guidelines), aff'd sub nom. Consolidated Rail Corp. v. United States, 812 F.2d 1444 (3d Cir. 1987). The SARR that PPL

hypothesized in this case is referred to as the “Wyoming Montana Coal Railroad” (WMCRR), and is depicted in the map below.



As shown, the WMCRR can be divided into two distinct parts: a “North-South Part” extending 99 miles from Converse to Buckskin, WY, and a “Western Part” extending 241 miles from Campbell, WY, to Laurel, MT. With the traffic group selected by PPL, much of the traffic that the WMCRR would carry would not use the Western Part. Indeed, even though the Western Part would comprise 70% of the WMCRR in length, only 15% of the WMCRR tonnage would move over any of the Western Part. PPL 2003 at 7.

BNSF challenged the propriety of PPL's SAC presentation, arguing that it relied on an impermissible cross-subsidy of the Western Part by traffic not using that part. The Board agreed that a cross-subsidy of that nature would be inconsistent with the SAC test. See PPL 2002 at 8-9; PPL 2003 at 4-7; Guidelines at 540.

To determine whether PPL's SAC analysis contained a proscribed cross-subsidy, the Board performed a threshold cross-subsidy analysis which, as pertinent here, required it to calculate the portion of the total WMCR operating expenses fairly attributable to the Western Part traffic. The Board used an allocation method proposed by BNSF, albeit introduced for a slightly different purpose. However, the Board noted that this allocation understated the costs attributable to the Western Part because it allocated to the Western Part little or no expenses for operating managers, general and administrative staff (G&A), maintenance of way (MOW), and loss and damages (L&D). PPL 2002 at 11. **Table 1** shows the total operating expense PPL proposed for the WMCR and the portion of those operating costs that the Board attributed to the Western Part in PPL 2002.

**Table 1**  
**Operating Expenses Attributed to Western Part**  
**in PPL 2002**

Operating Expense Items	WMCR Total	Western Part	
		STB 2002	% Total
Train & Engine Personnel	\$10,579,708	\$5,200,032	49%
Locomotive Lease	4,740,103	2,397,167	51%
Locomotive Maintenance	4,077,091	2,378,203	58%
Locomotive Operating	11,446,488	8,059,157	70%
Railcar Lease	906,967	487,886	54%
Railcar Maintenance	1,806,694	1,131,620	63%
Material & Supply Operating	205,631	28,153	14%
Ad Valorem Tax	1,983,418	1,068,058	54%
Operating Managers	3,809,610	0	0%
General & Administration	5,624,401	26,569	0.5%
Revenue Division	491,539	491,539	100%
Trackage Rights	36,494	36,494	100%
Loss and Damage	327,060	0	0%
Insurance	1,797,695	718,740	40%
Maintenance of Way	7,252,059	0	0%
<b>Total</b>	<b>\$55,084,959</b>	<b>\$22,023,618</b>	<b>40%</b>

This analysis showed that PPL's SAC presentation did indeed rest on an impermissible cross-subsidy. Even accepting the evidence in the light most favorable to PPL, the Board found that the revenues generated by the traffic using the Western Part would not cover the operating and investment costs attributable to that part of the WMCRR. Accordingly, the Board concluded that PPL's complaint should be dismissed because PPL had failed to demonstrate that the challenged rates were unreasonably high.

At this juncture, it is useful to review the policy underlying the Board's rejection of PPL's case-in-chief. In its case, PPL designed a system made up of a short, heavily traveled North-South Part heading north out of the PRB, and a far longer Western Part going to its plant in Billings, MT. PPL sought to take advantage of the density of traffic on the North-South Part, by submitting a system that used the revenues gained from that part to offset the cost of the Western Part.

The Board rejected PPL's case because the longer Western Part would fail to recover sufficient revenues to cover the cost of constructing and operating that part. The Board viewed this attempt as an impermissible cross-subsidy, because it would use the revenues generated on a smaller, though higher density, portion of the system to cross-subsidize the larger, lower-density Western Part that would serve PPL's plant. Allowing this sort of system, where a shorter, higher-density part would "cross-subsidize" a longer, lower-density part runs contrary to the goal of the SAC test, which is to eliminate impermissible cross-subsidies. Typically, that test ensures that the complaining shipper is not required to cross-subsidize other parts of a railroad's system. Here we have the opposite situation – the rest of the system would be cross-subsidizing the complaining shipper. This is not to say that in a SAC case, a shipper must show that every mile of its SAC system would generate greater revenues than costs; merely that where, as here, less than one-third of the system would cross-subsidize the other two-thirds, the Board will reject such presentations.

PPL sought reconsideration of the 2002 decision, challenging both the cross-subsidy analysis and how it was applied in this case. The Board rejected PPL's challenge to the cross-subsidy analysis, explaining that the analysis is consistent with the fundamental "Constrained Market Pricing" principles set forth in Guidelines and that it reflects sound public policy. PPL 2003 at 5-7. But the Board agreed with PPL that, for several components of the operating expenses, the Board in PPL 2002 had overestimated the costs attributable to the Western Part. The problem noted by PPL was with the application of the ratios developed by the Board for determining, for each category of operating expense, the portion of the expense attributable to the Western Part. The ratios had been derived from the traffic group evidence PPL had submitted on opening evidence. But the Board then applied those ratios to the operating expenses from PPL's rebuttal evidence, even though those expenses were derived from significantly less traffic moving on the Western Part than PPL had proposed in its opening evidence. PPL 2003 at 9-10.

The Board therefore reopened the record for supplemental evidence on how to more accurately calculate the operating expenses attributable to the Western Part. PPL 2003 at 10-11. The Board suggested that the parties also present evidence on how to attribute MOW, G&A, L&D, and operating managers to the Western Part. Otherwise, the Board could not determine if its overstatement of some operating expenses due to the use of the wrong ratios would be offset by the understatement resulting from the omission of the four specified expense categories. Id. at 10.

## DISCUSSION

The portion of each operating expense category that should be attributed to the Western Part can be estimated using either a bottom-up or top-down approach. Under a bottom-up approach, one would calculate the amount of operating expense attributable to the Western Part traffic through analysis of the annual volumes, the type of railcars used, train sizes, distance traveled, and other characteristics of the traffic. This approach is well suited for the “direct operating expenses”—such as locomotive, crew, and railcar expenses—that can be derived from the characteristics of the traffic.

The top-down approach arrives at the attributable costs from the other direction. Starting with the SARR’s full operating expense for a particular category, this approach would back out the “threshold costs,” i.e., the basic operating expenses the WMCRR would incur to move any traffic. The remaining portion of that expense is the “variable” component, i.e., the amount by which the cost would increase with increasing traffic. The approach would allocate to the Western Part traffic a share of the variable portion of the operating expense (for example on a ton-mile basis). This approach is less precise but well suited for allocating “indirect operating expenses” (such as G&A and MOW) that otherwise might be difficult to allocate. If performed correctly, the two approaches should yield similar results.<sup>1</sup>

PPL used each of these approaches here. For the direct operating expenses, PPL applied a bottom-up approach, using a computer program that modeled the operating requirements of Western Part traffic. This model indicated that the WMCRR would need 73 trainmen, 18 locomotives, and 149 railcars to serve that traffic. PPL then derived the operating expenses associated with those numbers of crews, locomotives, and railcars, together with the corresponding costs for materials, maintenance, taxes, trackage rights, and insurance. **Table 2** contrasts PPL’s bottom-up calculation of the direct operating expenses attributable to the Western Part with the allocation the Board used in PPL 2002.

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<sup>1</sup> Because the two different approaches are employed for different types of costs, there was no need to demonstrate this comparability in this case.

**Table 2**  
**Direct Operating Expenses**

Operating Expenses	WMCRR Total	Western Part	
		PPL	STB 2002
Train & Engine Personnel	\$10,579,708	\$4,424,218	\$5,200,032
Locomotive Lease	4,740,103	2,151,163	2,397,167
Locomotive Maintenance	4,077,091	2,117,235	2,378,203
Locomotive Operating	11,446,488	5,319,848	8,059,157
Railcar Lease	906,967	459,225	487,886
Railcar Maintenance	1,806,694	1,018,438	1,131,620
Material & Supply Operating	205,631	20,573	28,153
Ad Valorem Tax	1,983,418	1,036,573	1,068,058
Revenue Division	491,539	430,626	491,539
Trackage Rights	36,494	31,972	36,494
<b>Total</b>	<b>\$36,274,133</b>	<b>\$17,009,871</b>	<b>\$21,278,309</b>

For indirect operating expenses (G&A, MOW, L&D, and operating managers), PPL used a top-down approach. PPL started with the total WMCRR cost for each of those categories and then subdivided the cost into a fixed and variable component, treating the WMCRR as a Class I railroad and deriving its variability parameters from the Board's Uniform Railroad Costing System (URCS).<sup>2</sup> PPL then allocated to the Western Part a share of the variable component—on a ton-mile basis for G&A and MOW, and on a train-mile basis for operating managers. (Because PPL treated all L&D costs as a fixed cost, it allocated none of that expense to the Western Part.) **Table 3** contrasts the resulting indirect operating costs that PPL would attribute to the Western Part with the allocation the Board used in PPL 2002.<sup>3</sup>

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<sup>2</sup> URCS is the Board's general purpose costing model used for determining the variable cost of a movement. The model determines, for each Class I railroad, what portion of each category of costs shown in its Annual Report to the Board represents its system-average variable unit cost for that cost category for that year.

<sup>3</sup> There is a slight discrepancy between the total G&A estimate in PPL's original evidence (\$5,624,401) and that used in this reopening (\$5,506,428). PPL did not explain the use of a different figure, nor was this proceeding reopened to revisit that expense item. Therefore, the Board uses the original G&A estimate here.

**Table 3**  
**Indirect Operating Expenses**

Operating Expenses	WMCRR Total	Percent Variable	Variable Component	West Ratio	PPL's Result	STB 2002
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Col. 2x3		Col. 4x5	
Operating Managers	\$3,809,610	82.0%	\$3,122,754	49.5%	\$1,546,302	\$ 0
General & Administrative	5,624,401	87.7%	4,932,499	48.9%	2,412,152	26,569
Loss and Damage	327,060	0.0%	0	n.a.		0
Maintenance of Way	7,252,059	77.4%	5,613,381	48.9%	2,745,125	0
<b>Total</b>	<b>\$17,013,131</b>		<b>\$13,668,634</b>		<b>\$6,703,579</b>	<b>\$26,569</b>

Note: Columns 4 and 6 reflect rounding.

For purposes of this cross-subsidy inquiry, BNSF accepted PPL's allocations of direct costs (as shown in **Table 2**), but objected to PPL's allocation of indirect costs (shown in **Table 3**). BNSF argues that use of variability parameters derived from URCS was inappropriate and that those costs should have been allocated directly, based on either the proportion of locomotive unit miles or the proportion of ton miles represented by the Western Part traffic.<sup>4</sup> For example, as the Western Part has 48.9% of the total WMCRR traffic (on a ton-mile basis), BNSF would attribute 48.9% of the total G&A expense to the Western Part.

BNSF has raised issues with respect to PPL's calculation of the variability parameters, but the Board need not resolve those issues here. Rather, just as the Board has used PPL's cost evidence for purposes of this cross-subsidy analysis, without endorsing the evidence, so too can it use PPL's variability calculations, as the combination of PPL's bottom-up and top-down approaches still shows an impermissible cross-subsidy of the Western Part by the traffic that would only use the North-South Part. The total operating costs attributable to the Western Part would exceed the operating expenses the Board attributed to that segment in PPL 2002. Therefore, even accepting the indirect operating expenses PPL would attribute to the Western Part, the evidence would not revive PPL's case against BNSF.

PPL therefore sought to further reduce the costs considered attributable to the Western Part by making two adjustments. The first would be to wholly exclude indirect costs (G&A, MOW, L&D, and operating managers) from the costs attributed to the Western Part. PPL relies on BNSF's failure to include such costs in the cross-subsidy analysis that BNSF proposed prior to the PPL 2002 decision, even though BNSF had every incentive to maximize the costs attributed to the Western Part. PPL

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<sup>4</sup> See BNSF Reply at 12 ("There was no need or justification for applying the URCS-based variability percentages to the costs developed from the underlying operating statistics.").

argues that it would be unfair for the Board to allow a change in allocation procedures when it denied PPL any opportunity to change its SAC presentation in response to the Board's cross-subsidy inquiry. See PPL 2003 at 8-9.

That argument must be rejected. The Board cannot ignore the obvious understatement of costs that would result if no portion of the indirect operating costs were attributed to the Western Part. See PPL 2002 at 11; PPL 2003 at 10 (recognizing the understatement). Regardless of the position that BNSF took in the initial proceeding, the Board concluded that it would be unreasonable to assume that the Western Part—which would account for approximately 70% of the total WMCRR route miles—would not require any MOW expense; or that, if the size of the WMCRR route system were reduced by 70%, the number of managerial and administrative personnel needed by the WMCRR would not be reduced. Moreover, the total operating expenses of the WMCRR, including indirect operating expenses such as MOW, were part of the record prior to reopening, and the sole purpose of this limited reopening is to allocate more accurately the total operating expenses PPL proposed for the WMCRR between the Western and North-South Parts. The fact that the Board denied PPL's request to submit new and different SAC evidence in response to the Board's cross-subsidy analysis is no reason for the Board to misapply that cross-subsidy analysis.

Alternatively, PPL argues that the direct costs attributed to the Western Part should be reduced. PPL argues that those costs, which it calculated using the bottom-up approach, should be subdivided into fixed and variable components and only the variable component attributed to the Western Part. That argument must also be rejected. Those costs were developed, based on a detailed analysis of the characteristics of the Western Part traffic, to calculate the additional costs the WMCRR would need to incur to handle the 25 million tons of Western Part traffic. For example, PPL's analysis determined that the WMCRR would need to acquire an additional 18 locomotives, at an annual expense of \$2.1 million. Whether or not URCS would treat some part of that expense as fixed, the entire expense should be attributed to the Western Part traffic, as the WMCRR would not acquire those locomotives if it did not handle that traffic. While PPL was free to calculate the direct operating expenses attributable to the Western Part using either a top-down or bottom-up approach, it cannot apply both approaches, one on top of the other, to the same expense.

In sum, to calculate the operating expenses attributable to the Western Part, the Board here uses PPL's bottom-up calculation for the direct operating expenses (derived from the characteristics of the traffic traveling over the Western Part) and PPL's URCS-based allocation of the indirect operating expenses. (For insurance expense, the Board uses PPL's estimate of 3.37% of the operating expenses.) **Table 4** contrasts the results here with the Board's findings in PPL 2002. As that table shows, the Board's error in PPL 2002, which resulted in an overstatement of the direct operating expenses, is more than offset by the understatement of the indirect operating expenses.

**Table 4**  
**Revised Operating Expenses Attributed to Western Part**

Operating Expense Items	WMCRR Total	Western Part	
		STB 2002	STB 2004
Train & Engine Personnel	\$10,579,708	\$5,200,032	\$4,424,218
Locomotive Lease	4,740,103	2,397,167	2,151,163
Locomotive Maintenance	4,077,091	2,378,203	2,117,235
Locomotive Operating	11,446,488	8,059,157	5,319,848
Railcar Lease	906,967	487,886	459,225
Railcar Maintenance	1,806,694	1,131,620	1,018,438
Material & Supply Operating	205,631	28,153	20,573
Ad Valorem Tax	1,983,418	1,068,058	1,036,573
Operating Managers	3,809,610	0	1,546,302
General & Administration	5,624,401	26,569	2,412,152
Revenue Division	491,539	491,539	430,626
Trackage Rights	36,494	36,494	31,972
Loss and Damage	327,060	0	0
Insurance	1,797,695	718,740	799,143
Maintenance of Way	7,252,059	0	2,745,125
<b>Total</b>	<b>\$55,084,959</b>	<b>\$22,023,618</b>	<b>\$24,512,593</b>

### CONCLUSION

Using the evidence submitted by PPL regarding the costs of constructing and operating the WMCRR as the evidence most favorable to PPL, see PPL 2002 at 10, the Board finds that PPL's SAC presentation in this case is based on an impermissible cross-subsidy of the Western Part by the North-South Part. Accordingly, PPL has failed to show that its challenged rates are unreasonable, and its complaint is dismissed.

This decision will not significantly affect either the quality of the human environment or the conservation of energy resources.

It is ordered:

1. The complaint is dismissed and this proceeding is discontinued.
2. This decision is effective September 30, 2004.

By the Board, Chairman Nober, Vice Chairman Mulvey, and Commissioner Buttrey.

Vernon A. Williams  
Secretary