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August 14, 2013

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BY HAND

Ms. Cynthia T. Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, SW
Washington, DC 20423

Re: STB Docket No. 42136, *Intermountain Power Agency v. Union Pacific Railroad Company*

Dear Ms. Brown:

On behalf of Union Pacific Railroad Company, enclosed for filing in the above referenced docket are:

1. The unbound original and ten copies of the HIGHLY CONFIDENTIAL version of the Final Brief of Defendant Union Pacific Railroad Company. Please note that some of the pages contain color images.

2. The unbound original and ten copies of the REDACTED version of the Final Brief of Defendant Union Pacific Railroad Company. Again, please note that some of the pages contain color images.

3. One CD containing an electronic copy of the HIGHLY CONFIDENTIAL version of the Final Brief of Defendant Union Pacific Railroad Company.

Additional paper copies of our filings are enclosed. Please return date-stamped copies to our messenger.

Thank you for your attention to this matter.

Sincerely,

Michael L. Rosenthal

Enclosures

cc: Counsel for Intermountain Power Agency

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BEFORE THE
SURFACE TRANSPORTATION BOARD

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INTERMOUNTAIN POWER AGENCY, Complainant, v. UNION PACIFIC RAILROAD COMPANY, Defendant.	)	Docket No. 42136

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August 14, 2013

Contains Color Images

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BEFORE THE
SURFACE TRANSPORTATION BOARD

INTERMOUNTAIN POWER AGENCY, Complainant, v. UNION PACIFIC RAILROAD COMPANY, Defendant.	)	Docket No. 42136

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ABBREVIATIONS AND ACRONYMS

AAR	Association of American Railroads
AREMA	American Railway Engineering and Maintenance-of-Way Association
ATC	Average Total Cost
BNSF	BNSF Railway Company
C&S	Communications and Signal
CMP	Corrugated Metal Pipe
DCF	Discounted Cash Flow
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
G&A	General & Administrative
IGS	Intermountain Generating Station
IPA	Intermountain Power Agency
IPP	Intermountain Power Project
IRR	Intermountain Railroad
ISS	Interline Settlement System
KCS	Kansas City Southern Railway
MMM	Maximum Markup Methodology
MOW	Maintenance of Way
MTO	Manager of Train Operations
NROI	Net Railroad Operating Income
R-1	Annual Report Form R-1
RCAF-A	Rail Cost Adjustment Factor, adjusted for productivity
RCAF-U	Rail Cost Adjustment Factor, unadjusted for productivity
R/VC	Revenue-to-Variable Cost
RTC	Rail Traffic Controller Model
SAC	Stand-Alone Cost
SARR	Stand-Alone Railroad
UP	Union Pacific Railroad Company
URC	Utah Railway Company
URCS	Uniform Railroad Costing System
USDA	United States Department of Agriculture
WNYP	Western New York & Pennsylvania Railroad
WRPI	Western Railroad Properties, Inc.

CASE NAMES

AEP Texas	*AEP Texas N. Co. v. BNSF Ry.*, NOR 41191 (Sub-No. 1) (STB served Sept. 10, 2007)
AEP Texas 2009	*AEP Texas N. Co. v. BNSF Ry.*, NOR 41191 (Sub-No. 1) (STB served May 15, 2009)
AEPCO June 2011	*Ariz. Elec. Power Coop., Inc. v. BNSF Ry.*, NOR 42113 (STB served June 27, 2011)
AEPCO 2011	*Ariz. Elec. Power Coop., Inc. v. BNSF Ry.*, NOR 42113 (STB served Nov. 22, 2011)
Coal Rate Guidelines	*Coal Rate Guidelines, Nationwide*, 1 I.C.C.2d 520 (1985)
Duke/CSXT 2003	*Duke Energy Corp. v. CSX Transp., Inc.*, NOR 42070 (STB served March 25, 2003)
Duke/CSXT	*Duke Energy Corp. v. CSX Transp., Inc.*, 7 S.T.B. 402 (2004)
Duke/NS	*Duke Energy Corp. v. Norfolk S. Ry.*, 7 S.T.B. 89 (2003)
SAC Procedures	*General Procedures for Presenting Evidence in Stand-Alone Cost Rate Cases*, 5 S.T.B. 441 (2001)
Major Issues	*Major Issues in Rail Rate Cases*, EP 657 (Sub-No. 1) (STB served Oct. 30, 2006)
OG&E	*Okla. Gas & Elec. Co. v. Union Pac. R.R.*, NOR 42111 (STB served July 24, 2009)
Otter Tail	*Otter Tail Power Co. v. BNSF Ry.*, NOR 42071 (STB served Jan. 27, 2006)
PPL Montana	*PPL Montana, LLC v. Burlington N. & Santa Fe Ry.*, 6 S.T.B. 286 (2002)
PPL Montana Reconsideration	*PPL Montana, LLC v. Burlington N. & Santa Fe RY.*, 6 S.T.B. 752 (2003)
TMPA	*Tex. Mun. Power Agency v. Burlington N. & Santa Fe Ry.*, 6 S.T.B. 573 (2003)
Xcel 2003	*Pub. Serv. Co. of Colo. D/B/A Xcel Energy v. Burlington N. & Santa Fe Ry.*, NOR 42507 (STB served Apr. 4, 2003)

Xcel 2004	*Pub. Serv. Co. of Colo. D/B/A Xcel Energy v. Burlington N. & Santa Fe Ry.*, 7 S.T.B. 589 (2004)
Xcel 2005	*Pub. Serv. Co. of Colo. D/B/A Xcel Energy v. Burlington N. & Santa Fe Ry.*, NOR 42057 (STB served Jan. 19, 2005)
Rate Regulation Reforms 2012	*Rate Regulation Reforms*, EP 715 (STB served July 25, 2012)
Rate Regulation Reforms 2013	*Rate Regulation Reforms*, EP 715 (STB served July 18, 2013)
WFA I	*Western Fuels Ass'n, Inc. & Basin Elec. Power Coop. v. BNSF Ry.*, NOR 42088 (STB served Sept. 10, 2007)
WFA II	*Western Fuels Ass'n, Inc. & Basin Elec. Power Coop. v. BNSF Ry.*, NOR 42088 (STB served Feb. 18, 2009)

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FINAL BRIEF OF UNION PACIFIC RAILROAD COMPANY

This is the Final Brief of Union Pacific Railroad Company ("UP"). For the reasons set forth below and in UP's reply evidence and argument, the Board should dismiss the complaint filed by Intermountain Power Agency ("IPA").

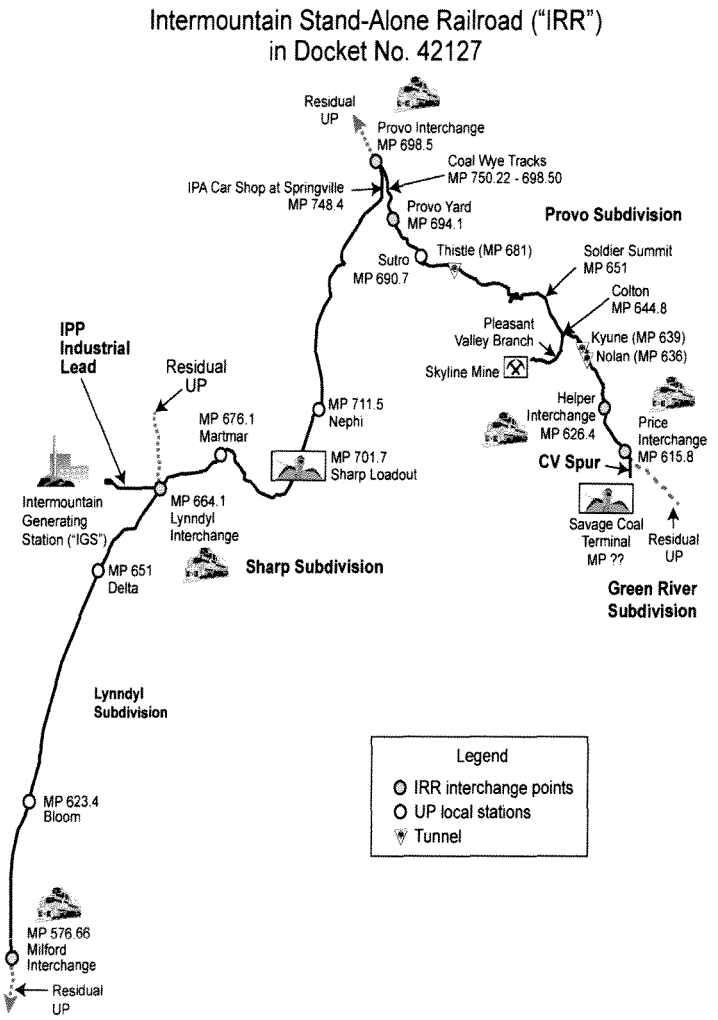
I. INTRODUCTION

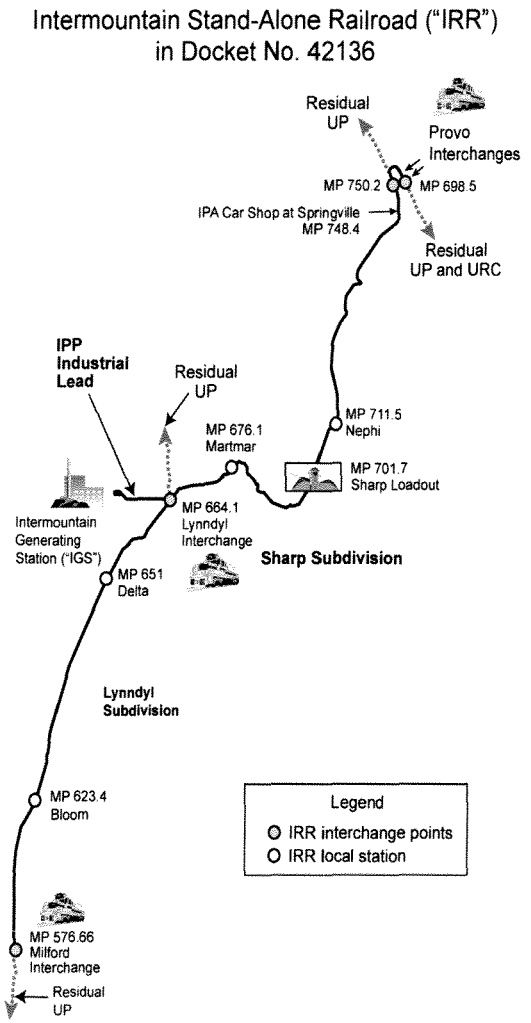
This proceeding is IPA's second challenge to the reasonableness of UP's common carrier rates for transporting coal in unit train service from an interchange with Utah Railway Company ("URC") in Provo, Utah, to IPA's Intermountain Generating Station ("IGS") at Lynndyl, Utah. IPA abandoned its first challenge in 2012, recognizing that it could not show UP's rates were unreasonable under the assumptions that IPA made in that case. *See Intermountain Power Agency v. Union Pac. R.R.*, Docket No. 42127 ("Docket No. 42127").

This case demonstrates the need to change the Board's rules governing use of cross-over traffic in stand-alone cost ("SAC") cases. As IPA concedes, the primary difference in the SAC analysis of its stand-alone railroad ("SARR") in this case and the SARR in Docket No. 42127 is that the SARR in this case does not replicate UP's lines from Provo to Price, Utah. IPA Reb. at I-6. IPA obtained different results in this case by designing its SARR so that UP, rather than the SARR, is responsible for the relatively high costs to construct, operate, and maintain the Provo-Price segment, while still crediting its SARR with substantial revenues for handling cross-over traffic that moves over the Provo-Price segment, thanks to the Average Total Cost ("ATC") method of allocating cross-over revenues. The disparity in results is a red flag. It demonstrates that ATC is *not* a neutral means of simplifying a SAC analysis of a true SARR—that is, a SARR that provides origin-to-destination service for all the movements in the SARR traffic group. More specifically, it shows that complainants can and do exploit the use of cross-over traffic and

ATC to allocate revenues to their SARRs that are disproportionately large in relation to the actual costs of serving the SARR traffic group.

Diagrams of the SARR in Docket No. 42127 and the SARR in this proceeding are provided below.





On reply in this proceeding, UP presented several alternative approaches the Board could adopt to remedy IPA's exploitation of cross-over traffic and ATC. UP's reply evidence showed that IPA could not prevail here if the Board adopts any one of those alternatives. IPA does not

dispute that showing. Instead, it urges the Board to continue applying flawed methodologies and mischaracterizes the alternatives. UP answers IPA's arguments below in Part II.

However, UP should prevail here even under the Board's current rules governing use of cross-over traffic and ATC. IPA rejected most of the corrections to its opening evidence that UP provided on reply. IPA's rebuttal evidence therefore continues to overstate substantially the revenues and understate substantially the costs of its SARR, the Intermountain Railroad ("IRR"). In fact, IPA implicitly admits several significant flaws in its opening evidence by submitting on rebuttal "new evidence that could and should have been submitted on opening to support [its] opening submissions." *SAC Procedures*, 5 S.T.B. at 446. The Board should disregard this improper rebuttal evidence, which includes, among other things:

- Evidence purporting to show the revenues and costs associated with operating IRR local trains to originate or terminate certain traffic on the SARR—local trains that IPA's opening evidence assumed would be operated by UP;
- Evidence purporting to meet IPA's burden of proving that UP, affected shippers, and affected receivers would not object to the slower transit times that IRR provides for UP's high-priority intermodal Z trains;
- Evidence introducing an alternative reference point for developing IRR fringe benefit rates after UP had accepted (and corrected) IPA's original reference point;
- Evidence purporting to support lower IRR train dwell time at Sharp and IGS, interchange time at Provo, and time for pick-ups and set-outs at local industry;
- Evidence purporting to show that IPA's staffing for IRR's maintenance-of-way ("MOW") function is reasonable based upon experiences of another railroad;
- Evidence introducing an alternative indexing methodology for translating the cost of rail in 2007 into a cost for 2012; and
- Evidence purporting to meet IPA's burden of proving the feasibility of the undersized locomotive shop it designed for IRR.

IPA was obligated "to submit its best, least-cost, fully supported case on opening." *Duke/NS*, 7 S.T.B. at 101. It could not "hold back to see [UP's] reply evidence before finalizing

or supporting its own case." *Id.* IPA's tactics have deprived UP of "a fair opportunity to reply to [IPA's] evidence." *Xcel 2003* at 2. The Board should adhere to its rule that "[n]ew evidence improperly presented on rebuttal will not be considered." *SAC Procedures*, 5 S.T.B. at 446.[1]

This brief does not address all the flaws in IPA's rebuttal evidence, but it summarizes the evidence and argument on the most significant disputes regarding traffic and revenue in Part III, the operating plan and operating expenses in Part IV, MOW expenses in Part V, general and administrative ("G&A") expenses and ad valorem taxes in Part VI, road property costs in Part VII, application of the Discounted Cash Flow ("DCF") model and the Maximum Markup Methodology ("MMM") in Part VIII, and application of a cross-subsidy test in Part IX.

II. THE BOARD SHOULD ADOPT NEW RULES GOVERNING USE OF CROSS-OVER TRAFFIC AND ATC.

UP's reply showed how IPA exploited weaknesses in the current rules governing use of cross-over traffic and ATC by reconfiguring the SARR proposed in Docket No. 42127 to place greater weight on cross-over revenue and less weight on the costs of a true SARR. In sum, by not constructing the Provo-Price segment, while retaining an ATC-based allocation of revenue from the cross-over traffic that moves on that segment, IPA cut its SARR investment by more than half, while retaining more than half of the revenue from the cross-over traffic. In addition, by constructing less of a true SARR, IPA ensured that the outcome of the SAC analysis would be more dependent on ATC-based divisions of revenue from cross-over traffic that moves over the SARR only between Milford and Lynndyl—a segment that the issue traffic does not traverse. UP Reply at I-3, I-16 to I-18.

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[1] UP addresses IPA's improper rebuttal in more detail below. UP is not filing a separate motion to strike because the Board has made clear that "[n]ew evidence improperly presented on rebuttal will not be considered." *SAC Procedures*, 5 S.T.B. at 446; *see also, e.g.*, *AEPCO 2011* at 43, 44, 124 (refusing to consider improper rebuttal evidence identified in defendants' final brief).

To mitigate this problem, UP proposed a modification to ATC to address a feature that facilitates shipper manipulation of cross-over traffic: the disconnect that often exists between the hypothetical cost of providing service to carload and multi-carload traffic over the line segments replicated by a SARR and the revenue ATC allocates to those facilities.[2] In the alternative, UP urged the Board to adopt one of the proposals to restrict use of cross-over traffic that UP had advocated in Ex Parte No. 715, *Rate Regulation Reforms*. UP Reply at I-19 to I-24.

IPA offers three conceptual responses. Each lacks merit.

First, IPA says that it just followed agency precedent. IPA Reb. at I-7 to I-8. However, that is no answer because the Board stated in this proceeding that "use and application of cross-over traffic, as well as ATC revenue allocation methodologies, are potential issues in individual rate cases." *Intermountain Power Agency v. Union Pac. R.R.*, NOR 42136, slip op. at 4 (STB served Dec. 14, 2012); *see also Rate Regulation Reforms 2013* at 28 ("[P]arties in pending cases are free to advocate in their individual proceedings ways to address this issue."). In other words, Board precedent opens the door for improved approaches.

Second, IPA says that the different results in Docket No. 42127 and this case should not disturb the Board because different SARR configurations should be expected to yield different results. IPA Reb. at I-8 to I-9. However, the different results in the two proceedings are *not* attributable to the flexibility of SARR design contemplated in *Coal Rate Guidelines, Nationwide*, 1 I.C.C.2d 520 (1980). IPA did not assume any meaningful change in the traffic group, the route

[2] *See Rate Regulation Reforms 2013* at 27 (describing the Board's continued "reservations about the growing use of carload and multi-carload cross-over traffic in Full-SAC cases" and "concern that the resulting revenue disconnect, if not remedied, could tilt the balance towards the need to restrict the use of cross-over traffic"); *Rate Regulation Reforms 2012* at 16 (explaining that the current version of ATC often allocates "more revenue to the facilities replicated by the SARR than is warranted").

of the traffic, or the physical plant required to handle the traffic. *See id.* at 543-44. Rather, the different results are due solely to IPA's reliance on the use of cross-over traffic and ATC rather than constructing the Provo-Price segment—a segment that would be a necessary part of a true SARR. Moreover, the difference here is not a minimal degree of "imprecision" that might be expected when simplifying a complicated analysis. *Cf. Xcel 2005* at 7 (use of cross-over traffic "introduces some imprecision into the SAC analysis"). Comparing the evidence in Docket No. 42127 and in this proceeding shows that IPA turned a SAC case that was a clear loser into a much closer case by using cross-over traffic and ATC as a substitute for constructing the Provo-Price segment (even though it had to sacrifice a complaint origin to do so). The difference in results is thus inconsistent with the Board's expectation that use of cross-over traffic would not alter the outcome of SAC analyses because ATC would be an "unbiased" method of "ensur[ing] that the result" of a SAC analysis using cross-over traffic "closely aligns with what a larger, more cumbersome SAC analysis would show." *Major Issues* at 36 & n.92.

Third, IPA says that, even if UP is correct, the Board should do nothing—neither modify ATC nor restrict the use of cross-over traffic. IPA Reb. at I-9 to I-16. However, it would be arbitrary and capricious for the Board to ignore flaws in the rules governing use of cross-over traffic that the agency itself identified in *Rate Regulation Reforms* and that materially affect IPA's SAC analysis.

On reply, UP proposed a modification to ATC to address the disconnect that arises when traffic is costed as though it moves in carload or multi-car service. The modification involves a few simple adjustments to the standard URCS inputs for carload and multi-car traffic to reflect IRR's handling of the traffic as intact trainloads. UP Reply at III.A-20.

IPA's criticisms of UP's proposal fall into four categories. IPA asserts that the proposal: (i) impermissibly requires movement-specific adjustments to URCS; (ii) impermissibly focuses on SARR operations; (iii) is biased against SARRs; and (iv) is inconsistent with UP's prior complaints about ATC. These criticisms lack merit.

UP's proposal involves allocation of URCS costs, not a movement-specific adjustment to URCS. IPA asserts that Board rules prohibit any adjustments to URCS, but it cannot dispute that the Board ordered the complainant to make adjustments similar to those UP is proposing in *Arizona Electric Power Cooperative, Inc. v. BNSF Railway*, NOR 42113 (STB served June 27, 2011). Moreover, IPA does not dispute that the proposed calculations are straightforward and simple to perform. IPA also fails to grasp an important distinction between UP's proposal and the type of movement-specific adjustments the Board has previously rejected: UP's proposed adjustment would not affect the calculation of origin-to-destination costs for any movement—it would affect only how the costs are allocated to portions of a movement, which is not an issue addressed by URCS.[3] In fact, any allocations of URCS costs to portions of a movement, including the allocations performed in order to apply ATC, necessarily involve some manipulation of URCS costs.[4]

UP's proposal focuses on the incumbent's operations, not the SARR's operations. IPA is wrong when it claims UP's proposal impermissibly focuses on the SARR's costs of handling

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[3] IPA says the aspect of UP's proposal that preserves the total origin-to-destination costs adds "insult to injury" because it increases off-SARR costs at the same time it decreases on-SARR costs. IPA Reb. at III-A-3. However, this feature is an appropriate response to the concern UP addresses—that some portions of cross-over movements are less costly than others. Failure to reallocate costs to the off-SARR portion of the movement would end up assigning movements less than their total origin-to-destination cost as determined using URCS.

[4] UP's proposed adjustments also are not movement-specific; the proposed adjustments to URCS are applied to entire classes of SARR traffic.

cross-over traffic, rather than UP's costs of handling that traffic on the lines the SARR replicates. UP's proposal addresses the problem that the current version of ATC allocates more revenue to the SARR than is warranted because the allocations do not properly recognize *the costs of the services that UP, not the SARR, is providing on the portions of its route replicated by the SARR.* In any event, as IPA recognizes, the distinction makes no difference here because *both* UP and the SARR move the cross-over traffic at issue in intact trainloads over the lines replicated by the SARR. IPA Reb. at III-A-26.[5]

UP's proposal is neutral as between SARRs and incumbents. Contrary to IPA's claim, UP's proposal is not biased against SARRs. In fact, a SARR would "benefit" from the proposal if it replicated the more costly, non-trainload-like portion of service for cross-over traffic and left the incumbent with the trainload-like portion. UP's proposal does *not* assign different costs to the trainload-like and non-trainload-like portions of cross-over movements depending on the identity of the party providing the service. UP's proposal recognizes that if either the SARR *or* the incumbent provides *only* the trainload-like service, the costs for the remaining portions of the movement are necessarily borne by the other carrier.[6]

UP's proposal is reasonable, regardless of UP's other criticisms regarding use of cross-over traffic and ATC. IPA's claim that UP's criticisms of ATC preclude UP from proposing

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[5] UP's proposal is consistent with Board precedent, which focuses on the operations of the defendant carrier in calculating revenue allocations using ATC. However, UP urges the Board to reconsider this issue in a case where the distinction matters. If the focus is on the operations of the defendant carrier, rather than the SARR, a complainant could distort the revenue allocation process by designing a SARR that fails to provide the same services as the defendant on the portion of the route replicated by the SARR yet claim revenues allocated as if it did provide those services.

[6] Because UP's proposal makes no assumptions about the allocation of costs among particular segments for the remaining portions of a movement, IPA's charts and diagrams that attempt to show that UP's proposal would assign different costs to similar line segments are both extraneous and erroneous.

improvements is just a cynical attempt to resist a needed change. If UP had its way, the Board would not permit use of cross-over traffic in SAC cases or rely on ATC-based methods of allocating cross-over revenue. Thus, UP submitted evidence showing that it would prevail if the Board restricted or eliminated use of cross-over traffic or allocated cross-over revenue using efficient component pricing principles. UP Reply at III.A-31 to A-32. However, if the Board does not restrict use of cross-over traffic or abandon ATC—and the Board's recent decision in *Rate Regulation Reforms* suggests that it has no such plans—then it should at least address the problems with use of cross-over traffic that it has identified. UP's proposal addresses those problems in a reasonable way, and it is consistent with suggestions by other railroads and many shippers in *Rate Regulation Reforms* that these problems can be addressed through adjustments to the cost calculations used in ATC. *See Rate Regulation Reforms 2013* at 28.

III. THE BOARD SHOULD ACCEPT UP'S EVIDENCE ON DISPUTED ISSUES RELATING TO SARR TRAFFIC AND REVENUE.

In addition to the disputes related to IPA's use of cross-over traffic and ATC calculations that are addressed above in Part II, UP and IPA have three substantial disagreements relating to SARR traffic and revenue. UP provided the best evidence on each issue.

A. On-SARR UP-Originated/Terminated Traffic

On opening, IPA included in IRR's traffic group certain traffic that either originates or terminates on lines replicated by IRR, but did not provide for IRR to handle the originations and terminations. Instead, IPA assumed that UP would originate or terminate the traffic and move it in local train service to and from interchanges with IRR, which would receive all of the revenues, in exchange for paying UP a small fee. In essence, IPA treated the traffic as cross-over traffic but did not apply ATC-based divisions of revenue. On reply, UP argued that the Board should

exclude this traffic from the IRR traffic group, or, in the alternative, at least use ATC to calculate IRR's divisions. UP Reply at III.A-13 to III.A-15 & III.A-20 to III.A-23.

On rebuttal, IPA does not dispute its failure to use an ATC-based divisions methodology, and it offers no support for the fee it proposed.[7] IPA also accepts UP's position that IRR could not rely on UP to originate and terminate traffic on lines replicated by the SARR. IPA Reb. at III-A-18.[8] However, rather than remove the traffic from IRR's traffic group, as UP did in its reply evidence, IPA submits new evidence purporting to reflect the SAC costs for IRR, rather than UP, to originate or terminate the traffic. *Id.*; *see also id.* at III-C-33. IPA attempts to justify this improper rebuttal evidence by asserting that it is merely supplying "corrective" evidence in response to UP's criticisms (*id.* at III-A-18), but this is no mere correction. IPA hypothesizes entirely new operations involving entirely new trains and new crews, and thus entirely new costs, for the first time on rebuttal. IPA's tactics have deprived UP of an opportunity to submit evidence addressing whether IPA properly accounted for the costs of the new operations and whether the new operations would provide adequate service to affected shippers.

Basic fairness, due process, and agency precedent require the Board to disregard IPA's new evidence. IPA was required to "submit its best, least-cost, fully supported case on opening."

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[7] IPA's original fee approach assigned UP just $300,000 for providing local train origination and termination services for this traffic. IPA Opening workpaper "Expanded_Waybill_Data_ATC_Percentages_IPAopen.xls." IPA's rebuttal evidence indicates that it would cost the supposedly more efficient IRR at least $1.4 million to provide the same services, and even that figure is grossly understated because IPA fails to account for a substantial number of trains, as discussed below. IPA Rebuttal workpapers "IRR Operating Expense_Rebuttal.xlsx" & "IRR Operating Expense_2nd Alt.xlsx."

[8] IPA asserts that UP "mistakenly groups approximately 300 shipments in this category," but it provides no support for this assertion. IPA Reb. at III-A-16 n.7. UP has been unable to identify shipments matching IPA's description. UP's reply evidence simply addressed those shipments that IPA identified in its opening evidence as on-SARR shipments that would be originated or terminated by UP. UP Reply workpaper "Expanded_Waybill_Data_ATC_Percentages_UP Reply (With Lookups).xlsx," Worksheet "OT_ADJ."

Duke/NS, 7 S.T.B. at 101. IPA's rebuttal evidence involves a vastly more extensive redesign of a SARR than other evidence the Board has previously rejected as improper rebuttal. *See AEPCO 2011* at 43 (rejecting evidence regarding the construction of a new fuel pipeline because "[t]he pipeline is an entirely different method for calculating fuel costs, and attempting to introduce this evidence on rebuttal violates stand-alone rate case evidentiary rules, because defendants do not have an opportunity to challenge the specifics of building such a pipeline"); *Duke/CSXT 2003* at 4 (rejecting evidence regarding a new location of a yard and the realignment of a tunnel as an impermissible "redesign [of] the SARR on rebuttal"). By assuming on rebuttal that IRR, rather than UP, would originate or terminate the traffic in dispute, IPA has gone far beyond "simply seeking to support what it presented in its opening evidence or adopting evidence submitted by [UP]." *Duke/CSXT 2003* at 4. "Fairness dictates that [UP] would need an opportunity to address the feasibility and cost of a new SARR design and how that change might alter other evidence in the record." *Id.* The Board must therefore disregard IPA's new evidence.

In fact, UP's preliminary review of IPA's new evidence has revealed significant errors that resulted in IPA's understatement of SAC costs. Specifically, IPA ignores the need for local trains to deliver empty cars to industries prior to the origination of each loaded movement. This corresponds to approximately 45 local trains that IPA did not address in its evidence. IPA also fails to include the costs associated with all of the local trains needed to provide service for *loaded* movements. IPA accounts for revenues from 386 trains that originated or terminated the loaded shipments, but it accounts for costs associated with only 326 of them.[9] In sum, the traffic in dispute involves 431 local trains, but IPA accounted for only 326 local trains. IPA also fails

[9] *Compare* IPA Reb. workpaper "ONSARR_Noncoal_Originated_Terminated_Base_Period_Trains_v5 (with Locals).xlsx," *with* IPA Reb. workpaper "Base Year Locals (Final).xlsx."

entirely to account for another part of the traffic in dispute: shipments that are originated or terminated by yard jobs, rather than local trains. UP's lack of an opportunity at this stage of the case to submit detailed evidence addressing these and other, possibly more significant errors in IPA's rebuttal submission demonstrates why the Board does not allow complainants to make such revisions to their SARRs on rebuttal.

Finally, the Board should reject IPA's attempt to blame *UP* for not submitting evidence on reply that assumed IRR would provide the local train service. IPA Reb. at III-A-19 to A-20. This is not an issue of a simple correction to an obvious error or an omission in IPA's opening evidence. IPA made the strategic choice in its opening evidence to avoid costly local operations by assuming that UP would originate or terminate a group of traffic in exchange for a fee.[10] If IPA is not willing to defend its assumption, it cannot escape the consequences of its strategic choice by shifting to UP the burden of proof regarding the cost and feasibility of the service at issue. Accordingly, the Board should exclude the movements from the SARR traffic group.

B. Z Trains

On opening, IPA claimed that IRR's transit times "for train movements over the various SARR line segments are equivalent to or faster than the real-world UP cycle times" and that the comparison "includes the premium intermodal or 'Z trains' that IRR operates in bridge service between Milford and Lynndyl." IPA Opening at III-C-38. IPA knew that transit times for UP's

[10] IPA claims IRR provides similar "local service" for other traffic (*id.* at III-A-19), but its claim is both untrue and irrelevant. The claim is untrue because the other service involves picking up or dropping off cars already on through trains; it does not involve the movement of cars on *local trains* to interchange points. The claim is irrelevant because, as discussed above, IPA plainly made a strategic choice not to handle the origination or termination of the traffic in dispute.

IPA also asserts that it costed the affected movements as originating and terminating on the SARR when calculating IRR's division of revenues. *Id.* at III-A-19 to A-20. However, that is not the same thing as developing the SAC costs and an operating plan for IRR's provision of local train service. IPA plainly assumed that UP would provide that service, not IRR.

Z trains would be an issue in this proceeding because UP had raised the same issue in Docket No. 42127.[11] Indeed, IPA claimed its transit time analysis had accounted for the specific issue UP identified in the earlier proceeding—inclusion of dwell time at interchange yards. IPA Opening at III-C-37.

However, UP showed on reply that IPA failed in this case to account for the additional dwell time associated with the insertion of IRR into the route and that, when the error was corrected, IRR's transit times were plainly slower than UP's. UP Reply at III.A-12 & III.C-22. UP removed the Z train traffic from the SARR traffic group because IPA did not meet its burden of proving either that IRR would provide the same level of service as UP or that UP or shippers would not object to the increased transit time. *Id.* at III.A-13.

On rebuttal, IPA concedes that IRR's transit times would be slower than UP's. IPA Reb. at III-C-39. However, IPA suggests that UP had the burden of showing that the slower transit times would cause problems, and not the other way around. *Id.* at I-21. IPA is wrong—the complainant bears the burden of proof: "the proponent of a SARR may not assume a changed level of service to suit its proposed configuration and operating plan, unless it also presents evidence showing that the affected shippers, connecting carriers, and receivers would not object." *Duke/CSXT*, 7 S.T.B. at 427.[12]

IPA also submits new evidence on rebuttal in an attempt to demonstrate that shippers would not object to the longer transit times. The Board must disregard this new evidence. IPA

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[11] *See* Reply Evidence and Argument of Union Pacific Railroad Co. at III.A-16 to A-19 & III.C-24, *Intermountain Power Agency v. Union Pac. R.R.*, NOR 42127 (Nov. 10, 2011).

[12] To the extent IPA argues for a departure from Board precedent involving a "minor increase in average transit time" (IPA Reb. at III-C-40), IPA "had the burden of justifying such a departure, and it needed to present its arguments on that issue *on opening* to provide [UP] a fair chance to reply." *Otter Tail* at 3-4 (emphasis added).

"has gone beyond simply seeking to support what it presented in its opening evidence"—that is, its claim that IRR's transit times would be faster than UP's—"or adopting evidence submitted by [UP]." *Duke/CSXT 2003* at 4. IPA abandoned its prior argument and now seeks to support its new claim regarding shippers' views. Fairness dictates that UP should have an opportunity to respond to such evidence, which is why IPA's new evidence is impermissible rebuttal. *See id.*[13]

Moreover, had IPA introduced its evidence on opening, UP could have shown that it is severely flawed. The centerpiece of IPA's new evidence is a claim that most Z trains arrive at times receivers could not pick up the containers. IPA Reb. at III-C-42 to C-43. However, this claim suffers from two critical flaws. *First*, IPA misrepresents what it means to "flip" an intermodal container. A "flip" is *not* a movement of a container from a railcar to a truck chassis or the ground—that activity is called a "lift." A "flip" is an extra movement from one chassis to another chassis—it is not part of the normal process of delivering containers to customers. IPA says it relied on UP's website to identify "flip" hours, and that website makes clear that a "flip" is different from a "lift."[14] *Second*, although IPA claims that {

} (IPA Reb. at III-C-43), IPA's own workpapers actually show that {

} (IPA Reb. workpaper "Z Train Transit Time.xlsx").

In addition, IPA's rebuttal erroneously suggests that UP's Z trains do not currently arrive "when most customers prefer to pick up their containers." IPA Reb. at III-C-42. Given a fair

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[13] In other words, IPA cannot now change the arguments it made on opening to justify including Z train traffic in the IRR traffic group because UP relied on IPA's opening evidence to determine the issues it needed to address on reply. *See Otter Tail* at 3-4 (explaining that "a complainant may not . . . alter its position on rebuttal" when the railroad's reply evidence relied on the complainant's original position).

[14] *See* http://www.uprr.com/customers/intermodal/intmap/flip_policy.shtml.

opportunity to reply, UP would have shown that Z train arrivals are scheduled to meet the service needs of particular customers. IPA also tries to downplay the impact of slower transit times by observing that not all containers are lifted immediately after a train arrives. *Id.* at III-C-43.[15] Given a fair opportunity to reply, UP would have shown that the slower transit times for the Z trains would affect UP's ability to meet the demanding delivery standards set by these time-sensitive customers. Finally, IPA complains that UP did not produce sufficient information in discovery for IPA to evaluate the impact of slower transit times on customers. IPA Reb. at III-C-45. However, if IPA had concerns with UP's discovery responses, it should have raised them long ago. And, even then, it would have been improper for IPA to submit evidence about the impact of slower transit times on customers for the first time on rebuttal. Given a fair opportunity to reply, UP would have shown that the slower transit times would have a meaningful impact on its ability to retain the Z train traffic.

As the party with the burden of proving the feasibility of its operating plan, IPA was required to present on opening evidence showing that affected shippers would not object to IRR's slower transit times. By submitting such evidence for the first time on rebuttal, it deprived UP of a fair opportunity to respond. Accordingly, the Board must disregard IPA's evidence and exclude the Z train traffic from the SARR traffic group.

C. Fixed Costs Per Ton Calculation For ATC

UP's reply included a technical correction to the traffic density data used in IPA's ATC calculations. UP Reply at III.A-19. The correction is needed because one of the data files that UP produced in discovery contained incorrect routing information for approximately { }

[15] IPA also misstates the increase in transit time. IPA's insertion of IRR into the route adds 46 minutes, or 42%, to the average Milford-Lynndyl transit time, not 30 minutes. UP Reply at III.C-22.

cars and containers moving from Las Vegas to either Salt Lake City or Provo. The error caused the cars to be coded as not moving over the lines replicated by the SARR when in fact they did move over these lines. IPA identified the error on opening, corrected the routings, and selected this traffic for its SARR traffic group. However, IPA's correction was incomplete: IPA did not carry forward its routing correction to a related data file containing information about traffic densities on the affected line segments, and IPA relied on the uncorrected density data when calculating fixed costs per ton for ATC.[16]

On rebuttal, IPA does not deny that UP's corrections are accurate. Instead, IPA makes a technical argument that UP did not meet its "burden" of showing that there was a mistake in the density tables. IPA Reb. at III-A-44. However, a UP witness, Robert Fisher, submitted verified testimony addressing the need for the correction. UP Reply at IV-50. IPA also argues that ATC density data "typically [are] developed from train event data," which did not include the routing errors, and therefore it properly "assumed" that the density data were correct. IPA Reb. at III-A-44 n.17. However, IPA's claim about "typical" development of density data is incorrect, at least as it relates to UP. Moreover, IPA's assertion that it had no reason to suspect errors in the density data related to the routing information is false: the files containing the erroneous routing data and density data are related files that UP produced to IPA as part of the same database. In fact, as part of its production, UP provided IPA with a data layout that explained the relationship of the various files so that IPA could use them to develop its ATC evidence. IPA Opening workpaper "IPA_2011_Production. zip," subfile "ATC IPA Draft 090612.xlsx" (showing that the ACTRT and LINESEG files, which are the files in which IPA corrected the routing errors,

[16] The density tables understated traffic densities of the on-SARR lines over which the traffic actually moved and overstated traffic densities of the off-SARR lines that were part of the erroneous routing for the cars.

were part of the sequence of files used to create the outputs in the BIDIRDENSITY file, which contains the density data).

The Board should reject IPA's argument that the agency may rely on erroneous density data in conducting its SAC analysis. *See Xcel 2005* at 3 (describing the Board's role in rate cases as the "guardian of the general public interest" (internal quotation omitted)).

IV. THE BOARD SHOULD ACCEPT UP'S EVIDENCE ON DISPUTED ISSUES RELATING TO IRR OPERATIONS AND OPERATING EXPENSES.

UP and IPA continue to disagree on many issues relating to IRR operations and operating expenses. On these issues, UP provided the best evidence. We discuss the most significant issues below.

A. Locomotive Fleet

UP showed on reply that IPA had underestimated IRR's locomotive needs in various respects. UP Reply at III.C-8 to C-18. IPA failed to correct its errors on rebuttal.

IRR would need a dedicated pool of locomotives for the IPA trains. IPA concedes that the locomotives that move IPA trains on day one "will effectively be dedicated to IPA service." IPA Reb. at III-C-9. It incorrectly assumes, however, that these "day-one" locomotives, supplemented by some run-through locomotives, would be sufficient. *Id.* This would leave IRR with fewer locomotives than it needs for the IPA trains.

IPA does not dispute UP's evidence showing that, despite IPA's statement that IRR will use three locomotives per train, IPA assumes only 1.8 locomotive units to serve the IPA traffic. *Id.* at III-C-12 n.9; UP Reply at III.C-10 to C-11 & n.20. And IPA does not respond to UP's evidence that more than one set of locomotives will be needed to move IPA trains because there are significant monthly fluctuations in IPA coal volumes and on many days more than one IPA train will be moving on the SARR. UP Reply at III.C-13. IPA also does not show that IRR

could count on having extra run-through locomotives immediately available whenever an IPA train arrived at Provo or how use of UP run-through locomotives to power IPA trains would affect IRR operations. IPA's RTC model assumes that locomotives will always be immediately available to move the IPA trains, but if there were no excess locomotives from a run-through train at the time URC delivered an IPA train at Provo, the IPA train would sit on the coal wye tracks, blocking an interchange used by three railroads and several trains per day. IPA's simulation does not reflect such delays. IPA also fails to explain how IRR could tolerate this highly inefficient situation and still achieve its low costs while providing satisfactory service. Moreover, IPA's simulation does not include extra time required to remove locomotives from the run-through trains. The uncertain prospect that excess run-through locomotives would show up at Provo when needed would not be sufficient to keep the IPA trains running efficiently and avoid costly delays.

IRR would need a fourth locomotive for issue traffic trains. On reply, UP showed that issue traffic trains could not move efficiently with the 2x1 configuration IPA assumed on opening. As UP explained, because 90 percent of the IPA trains reload at the Sharp Loadout after an initial stop at IGS and there is no loop track at Sharp, a locomotive would have to be repositioned to the new head end before the train returns to IGS after reloading. UP Reply at III.C-13 to C-14. IPA argues for the first time on rebuttal that these trains could instead operate with one lead locomotive and two rear locomotives (a 1x2 configuration) when moving from Sharp to IGS (although it continues to assume use of the 2x1 configuration for these trains in its rebuttal RTC model). IPA Reb. at III-C-11 to C-12. This new argument, which UP has had no opportunity to rebut, should be rejected.

IPA acknowledges that the IPA trains have regularly operated with four locomotives since train lengths increased to 104 cars in 2011. *Id.* at III-C-11. IPA does not explain why IRR would deviate from this efficient, real-world practice.

IRR would incur ownership responsibility for repositioning idle units. IPA asserts that IRR would not incur ownership responsibility for locomotives that move on its system but are not needed for IRR traffic and therefore move with throttles in the idle position, or for other repositioning not required for IRR operations. IPA Reb. at III-C-12 to C-13. IPA's argument that IRR should be excused from an equalization obligation because it would be helping UP reposition those locomotives is frivolous. Standard industry terms require IRR to compensate the owner for any time locomotives are on IRR's system. UP Reply at III.C-15 & n.35. A locomotive owner would not forgo compensation simply because IRR claimed to be repositioning equipment for the benefit of others (just as IRR would not forgo compensation for IRR locomotives that move off its lines and onto UP, if UP later returned these locomotives with throttles in the idle position). Moreover, IPA could have provided time for IRR to remove unneeded locomotives and return them to UP before accepting run-through trains, in order to avoid some of the imbalance between eastbound and westbound locomotives on its route, but it did not do so.

B. Fuel Consumption

UP showed on reply that in using UP data to develop IRR fuel consumption, IPA failed to take account of significant differences between IRR and UP operations. UP Reply at III.D-7 to D-12. IPA assumes that IRR trains will operate at higher speeds than UP trains and would not follow UP's fuel conservation measures. IPA wants to have it both ways, benefiting from higher speeds and lower transit times (and thus lower equipment requirements) for IRR while assuming the lower fuel consumption associated with UP's operations. UP accepted IPA's decision to run

IRR trains faster and therefore applied an adjustment factor to IPA's fuel consumption rates to account for the fact that IRR locomotives will spend a greater percentage of time in higher throttle positions than UP locomotives do.

IPA fails to rebut UP's evidence that IRR fuel consumption should be adjusted upward. IPA does not dispute that in the parties' RTC simulations IRR trains move in higher throttle positions than actual UP trains for a greater percentage of time. IPA asserts that the AC4400 locomotives it selected as a proxy for ES44-AC locomotives in its RTC simulation are less fuel efficient than the ES44-AC model, but it does not say how much less efficient.[17] IPA Reb. at III-D-6 to D-7. IPA also states that a throttle position in the simulation "may" differ from the throttle position for an actual ES44-AC (*id.* at III-D-6 to D-7), but this is unsupported speculation, and there is no indication of how any difference would affect the bottom line.

IPA also insists that UP's fuel consumption records show that loaded coal and intermodal trains moving on the IRR route have lower fuel consumption rates than UP's system average. *Id.* at III-D-7. This makes no sense. Many of these trains will travel on uphill grades (compared with the generally flatter terrain for the UP system overall), and IPA assumes IRR intermodal trains will travel at 70 mph, the fastest train speed on the UP system. UP Reply at III.D-8. Moreover, the 2010-2011 fuel consumption records IPA used are not a reliable basis for predictions about 2012 and later years, because traffic gains since then have led to more trains, larger trains, and greater congestion. *Id.* at III.D-10 to D-11. In addition, IPA's restricted data set included only five records for coal trains; a broader set of the records UP produced shows a

[17] In developing its adjustment factor, UP assumed the same fuel consumption rate for both models. UP Reply workpaper "IRR Fuel Consumption_Reply.xlsx," Tab "Expense."

considerably higher average fuel consumption rate. *Id.* at III.D-11 to D-12. IPA does not respond to either of these criticisms.

C. Train And Engine Crew Salaries

UP showed on reply that IPA's train and engine crew salaries are too low. UP Reply at III.D-20 to D-21. IPA used a figure from salary.com that is 22 percent lower than the average UP crew salary, while assuming that IRR crews will work 270 shifts per year, more than almost all UP crew members. *Id.* IRR must pay the higher compensation that goes with the higher number of shifts per crew member. UP used the average compensation for UP crew members who achieved 256 to 285 shifts in 2012, consistent with the Board's conclusion that "employees working more hours would command more compensation." *WFA I* at 47.

On rebuttal, IPA dismisses this evidence because it allegedly is unclear whether the wage data UP analyzed are for conductors or more highly paid engineers or a mix of the two. IPA Reb. at III-D-16. However, IPA offers no reason why the data UP used would be weighted more toward engineers. IPA also argues that crew wages are affected by factors other than number of shifts worked, including tenure of the crew member. *Id.* at III-D-16 to D-17. Assuming this is so, it does not disprove UP's point. IPA could not assume that, in hiring from the small pool of people who work in the range of 270 or more shifts per year, IRR would somehow be able to hire only the lowest paid, least experienced subset of this group.

D. Fringe Benefits

On opening, IPA used a fringe benefit rate of 41.3 percent, which it described as the average 2010 rate for Class I railroads. UP explained on reply that the 2010 rate for Class I railroads (as shown in R-1 reports) actually averaged 43.4 percent and that the average rate for the period 2009-2011—44.0 percent—would better reflect recent cost increases in the rail industry. UP Reply at III.D-21 to D-22.

On rebuttal, IPA merely notes that the two Class I railroads that reported the lowest fringe benefit rates for the years since 2005—BNSF and KCS—were below 41.3 percent and asserts that a least-cost, most efficient railroad would achieve a similar level. IPA Reb. at III-D-18. This is pure speculation. There is no reason to think IRR could attract the highly productive workforce IPA assumes by offering benefits below the industry average, particularly when it would be competing primarily with UP (rather than BNSF or KCS) to attract employees in this part of Utah. In addition, the Board must disregard IPA's use of a BNSF/KCS average to support its opening rate. UP accepted IPA's proposal to calculate fringe benefits based on an average Class I rate. IPA may not change its methodology on rebuttal. *See AEPCO 2011* at 44 (complainant could not adopt new methodology on rebuttal where its opening evidence was flawed and it failed to show that method defendant used on reply was "'unsupported, infeasible, or unrealistic'" (quoting *Duke/NS*, 7 S.T.B. at 101)); *Xcel 2004*, 7 S.T.B. at 643-44 (complainant may not change a methodology on rebuttal that defendant accepted on reply).

E. Non-Train Operating Personnel

IPA asserts that there is no need for a fourth Manager of Train Operations because 12-hour shifts are acceptable and other IRR managers could handle conductor certification. IPA Reb. at III-D-13 to D-14. However, as UP explained on reply, the issue is not 12-hour shifts, but rather the unusually high average workload of over 2,900 hours per year that IPA assumes for each MTO. UP Reply at III.D-17. IPA presents no evidence that three MTOs could cover all hours of operation adequately, given the heavy schedules this would entail. It also does not show that individuals in other manager positions would have the time or proper qualifications to handle the conductor certification process.

IPA also insists that IRR would not need a 24/7 inspection operation at Provo. IPA Reb. at III-D-15. However, when a train arrives late in the day, the inspection might not be completed

prior to the end of a shift. In addition, without 24/7 staffing inspections of trains that arrive at night or over the weekend would be delayed. IPA does not explain why IRR shippers would tolerate the delay in moving trains when inspectors were off duty or how IRR can achieve the equipment utilization IPA claims if trains must wait at Provo.

F. RTC Simulation

IPA errs in stating that UP used a different version of the RTC model than IPA on reply. IPA Reb. at III-C-36 n.32. UP's workpapers state clearly that UP used the 64K version, the same version of the model IPA used on opening. (However, IPA departed from custom by switching versions on rebuttal.) IPA's criticisms of UP's reply RTC simulation (*id.* at III-D-34), reflect surprising confusion on IPA's part.

- IPA claims that UP's RTC simulation omits additional tracks UP believes are needed to facilitate interchange operations at Provo.[18] However, these tracks (which connect to the Sharp Subdivision at MP 746.70) *do* appear in UP's simulation.

- IPA asserts that UP failed to reduce the maximum train speed for "multiple trains" that should have had a reduced speed limit. UP did reduce the speed for all "key" trains carrying TIH commodities and for 68 of the 70 loaded coal and grain trains. UP's inadvertent failure to reduce the speed for just two trains (which benefits IPA) has a minimal impact on operation of the model.

- IPA states that UP failed to include additional interchange tracks and "inexplicably" added a private track. But the RTC model does not simulate car switching or other yard activities. Thus, inclusion or exclusion of these tracks is irrelevant.

[18] IPA also argues that additional track is not needed at Provo. *Id.* at III-B-8 to B-9. Because IPA has conceded that most IRR train inspections would be done on the coal wye tracks at Provo, rather than at IPA's car shop (*id.* at III-C-50 to C-51), UP agrees that there is less need for the 2.7-mile extension of one wye track and the second crossover to the Sharp Subdivision that UP proposed (at least absent any addition of the local trains IPA now proposes). But these track additions would help IRR operate more efficiently and would allow it to handle movements to the locomotive shop and the repair track that UP does not perform today.

G. Other Operating Issues

IGS Dwell Time. Contrary to IPA's argument (IPA Reb. at III-C-19 to C-21), unloading times at IGS should include the full amount of dwell time shown in UP's records. There is no reason to think IRR could avoid the delays that UP experiences between the time the unloading operation ends and the actual time the train departs IGS. Any number of necessary activities, such as locomotive inspection or obtaining a track warrant, could occur in that period. IPA's casual assertion that an IPA employee claims to have seen UP crews "choosing to waste time" at IGS (*id.* at III-C-20), does not establish that average IRR dwell times at IGS could be materially shorter than the actual times. That employee presumably lacked knowledge of conditions on UP that might have required the UP crews to wait for a dispatcher to authorize movement on UP lines. IPA provides no good reason for the Board to depart from its precedent supporting use of actual dwell times. UP Reply at III.C-27 n.68 (citing decisions).

IPP Industrial Lead. IPA retains a 40 mph speed limit for trains moving over the IPP Industrial Lead. However, FRA rules provide that 40 mph is appropriate only for track that is Class 3 or higher (49 C.F.R. § 213.9(a)), and IPA has not established that the IPP lead meets this standard or that IPA added costs required to improve the line to this standard. IPA does not deny that this lead is currently classified as unsignaled, non-mainline track and that the speed limit is therefore 20 mph under UP's special instructions. IPA Reb. at III-C-6; UP Reply at III.C-8.

Sharp Dwell Times. On opening, IPA used the median of actual dwell times for the Sharp reloading operation from UP's train event data. IPA Opening at III-C-24. On reply, UP accepted the use of actual dwell times shown in its train event data, but it used the average rather than the median of those times. UP Reply at III.C-27. On rebuttal, IPA agrees that use of the average is preferable, but it shortened the dwell times, based on an assumption that UP's train event data show incorrect arrival times at Sharp. IPA adjusted these arrival times based on its

observation that for some trains the data show an arrival time at Sharp earlier than the departure time shown for Nephi, the previous reporting station. IPA Reb. at III-C-22.

IPA's new adjustment is biased; IPA assumes without basis that only the Sharp times are wrong, never the Nephi times. Had IPA proposed on opening to adjust the arrival times at Sharp, UP on reply would have submitted evidence showing that the departure times for Nephi are more likely to be incorrect, since loading occurs at Sharp, while Nephi is an intermediate location where trains do not record specific operating activity. UP would also have shown that its car event data confirm the Sharp dwell times. In any event, the Board must reject IPA's attempt to change the methodology that it used on opening and UP accepted on reply—*i.e.*, use of the dwell times at Sharp as shown in UP's train event data. *See, e.g.*, *AEPCO 2011* at 44 (rejecting new methodology introduced on rebuttal); *id.* at 124 (rejecting supporting evidence offered for the first time on rebuttal); *Xcel 2004*, 7 S.T.B. at 643-44 (rejecting attempt to revise methodology that defendant accepted on reply).

URC Interchange Time. On opening, IPA did not offer evidence to support the time it allowed for interchange of loaded coal trains between URC and IRR. On reply, UP provided detailed evidence demonstrating the need to allow for more time. UP Reply at III.C-31 to C-34. In response to UP's detailed description of this interchange activity, IPA now agrees that the time it would take to complete the interchange is longer than IPA assumed on opening. IPA Reb. at III-C-24. IPA argues, however, that the time would be less than shown in UP's reply evidence because, among other things, only two hand brakes (rather than ten) allegedly would suffice to secure the train. However, the grade chart for UP's Provo Subdivision shows that there is a 0.25 percent grade in the vicinity of the wye tracks.[19] If IPA had included its assertion

[19] IPA Opening workpaper "Provo Timetable.pdf," at UP-IPA2-000000009.

regarding hand brakes on opening, UP on reply would have submitted a securement chart from its Special System Instructions showing that ten hand brakes should be applied to loaded coal trains on this grade.[20] Because IPA failed to provide evidence supporting its interchange time estimates on opening and does not show that UP's evidence on reply is "unsupported, infeasible, or unrealistic," the Board must accept UP's reply evidence. *AEPCO 2011* at 44; *see also id.* at 124 (rejecting supporting evidence offered for the first time on rebuttal); *Duke/NS*, 7 S.T.B. at 101 (complainant may not "hold back to see the railroad's reply evidence before finalizing or supporting its own case").

Pick-Ups and Set-Outs at Local Industry. On opening, IPA failed to provide evidence to support the time it allowed for pick-ups and set-outs by through trains at local industry. On reply, UP showed that these pick-ups and set-outs would take 70 and 90 minutes, respectively, and included a detailed breakdown to support Mr. Murphy's judgment about these times. UP Reply at III.C-37; UP Reply workpaper "Pickup and Delivery Operations at Intermediate Points.docx." IPA dismisses Mr. Murphy's judgments, offering descriptions of activities associated with the pick-ups and set-outs for the first time on rebuttal. IPA asserts that most of these activities would take no more than five or ten minutes each, for a total of 30 minutes for pick-ups and 35 minutes for set-outs. IPA Reb. at III-C-27 to C-29; IPA Reb. workpaper "Pickup and Delivery Operations at Intermediate Points.pdf." Among other things, however, IPA glosses over the time needed for IRR personnel to interact with customer personnel at the industry location; it assumes without basis that UP would have pre-blocked cars to be set out and that the cars would always be positioned immediately behind the head end locomotives; and it again minimizes the need to secure the train with an adequate number of hand brakes. Had IPA

[20] This document (labeled as UP-IPA2-000000513-14) was produced to IPA in discovery.

provided its evidence on opening, UP could have responded on these and other points. Again, under the circumstances, the Board must accept UP's evidence. *See AEPCO 2011* at 44, 124; *Duke/NS*, 7 S.T.B. at 101.

V. THE BOARD SHOULD ACCEPT UP'S EVIDENCE ON DISPUTED ISSUES RELATING TO MOW EXPENSES.

IPA and UP agree on many aspects of IRR MOW staffing and expenses, but significant disagreements remain. On these issues, UP provided the best evidence. We discuss the most significant issues below.[21]

A. Track Maintenance Staffing

UP developed its reply MOW workforce from the bottom up based on the conditions specific to IRR and the workload requirements Mr. Hughes identified. UP showed that its IRR staffing levels are consistent with the ratios of main-track miles per MOW employee and main-track miles per track crew in recent SAC cases. On rebuttal, IPA mischaracterizes Board precedent regarding MOW staffing, asserting that "the gross tonnage moving over a SARR's lines in the peak year is the most significant factor." IPA Reb. at III-D-61 (citing *AEPCO 2011* at 66-68). However, gross tonnage is only one of many factors the Board considers; the Board has not placed special weight on any one factor. These factors include "the territory's gross tonnage, amount of mainline track, curvature/gradient of the mainline, and number of switches along the route." *AEPCO 2011* at 66 (discussing size of roadmaster districts); *see also id.* at 68 (discussing number of track foremen). Only UP's evidence takes into account all these factors,

[21] The MOW staffing difference between the parties is seven, not six, as IPA states. IPA Reb. at III-D-60. Contrary to IPA's assertion (*id.* at III-D-67 & Table III-D-6), UP did not erroneously include an additional roadway machine operator. That employee, shown in UP's Reply MOW personnel tables III.D.16 and III.D.18, is the backhoe machine operator required for the third track crew that UP proposed. UP Reply at III.D-65 (accepting IPA's staffing of crews with one backhoe for each track crew).

including the useful ratio of main-track miles per track crew. In this regard, IPA's 99.5 main-track miles per track crew and 5.85 main-track miles per MOW employee are significantly higher than similar metrics for recent SAC cases, including *WFA I* (4.02 main-track miles per employee), *WFA II* (3.49), *Otter Tail* (3.07), *Xcel 2004* (3.07), and *AEP Texas* (3.41). IPA Reb. at III-D-60; UP Reply at III.D-60. Like IRR, the SARR in each of these cases was assumed to have newly constructed track, with the sorts of maintenance efficiencies IRR claims in rebuttal. IPA does not address any of these precedents.

Track Crews. On opening, IPA failed to show how two track crews could adequately maintain IRR's track, with a mileage/crew ratio (99.5 track miles per track crew) significantly higher than the Board has accepted in prior SAC cases. On reply, UP showed that IRR would require three track crews, based on IRR's specific maintenance requirements and consistent with Board precedent. UP Reply at III.D-63 to D-65. On rebuttal, IPA asserts for the first time that a new railroad using new materials would experience fewer maintenance problems than an older railroad. IPA Reb. at III-D-64. Apart from its failure to acknowledge that the other brand new SARRs had more MOW employees per track mile, IPA recognizes that it failed to quantify the impact of using new materials on opening, and it attempts to remedy its failure by introducing new evidence from Richard H. McDonald regarding staffing levels of Western Railroad Properties, Inc. ("WRPI") when that railroad began operations. *See id.* The new evidence should be disregarded.

As IPA recognizes, "the complainant has the burden of quantifying the impact on MOW expenses of using newer, more durable materials." *Id.* But IPA fails to acknowledge that, as the party with the burden of proof, it was obligated to provide Mr. McDonald's evidence on opening. IPA's tactics have deprived UP of the opportunity to reply to the new evidence. Accordingly,

the Board must accept UP's evidence. *See AEPCO 2011* at 124 (accepting defendants' evidence because complainant "has the burden of proof, and it does not adequately explain [its methodology] until rebuttal" when "defendants would not have an opportunity to reply"); *Otter Tail* at 4 (rejecting evidence of potential productivity improvements for SARR operations because complainant "did not offer any evidence on this issue until its rebuttal, when [defendant] had no opportunity to respond"); *Duke/NS*, 7 S.T.B. at 101 (complainant may not "hold back to see the railroad's reply evidence before finalizing or supporting its own case").

Moreover, Mr. McDonald's testimony fails to support IPA's assertion that two track crews would suffice during IRR's peak period. His evidence addresses staffing during WRPI's first five years of operations, when WRPI's maintenance needs were "primarily inspection, spot surfacing, and switch adjustments." IPA Reb. at III-D-65 to D-66. However, in a SAC case, MOW staffing must be developed for the SARR's peak-year operations, as IPA recognizes. IPA Opening at III-D-72. IPA provides no evidence regarding WRPI staffing during its tenth year of operations, which corresponds to IRR's peak year.[22]

Rotary Dump Truck Driver. IPA asserts that there is no need for a separate machine operator dedicated to the rotary dump truck because a single operator can be trained to operate both the dump truck and excavator. IPA Reb. at III-D-67 to D-68. IPA provides no support for its claim that an excavator operator could also be qualified to operate the more complex rotary dump truck. Even assuming an excavator operator could be cross-trained, the additional operator would still provide important efficiencies for the track crews. For example, operations using the excavator and the rotary dump truck could continue even when one operator is on vacation or

[22] Moreover, WRPI's alleged ratio of 122 main-track miles per track crew during some unspecified period (IPA Reb. at III-D-65 to D-66), is significantly higher than the ratio accepted in any recent SAC case the Board has decided. UP Reply at III.D-65 & Table III.D.20.

otherwise unavailable. IPA's witness Mr. Davis used similar reasoning to explain his acceptance of a second machine operator for the smoothing crew. *Id.* at III-D-68. The excavator operator could also continue working (*e.g.*, grading slopes or loosening hard earth) while the rotary dump truck dumps its load.

B. Communications & Signal Staffing

UP showed on reply that IRR needs four signal maintainers and a signal technician, based in part on its determination that IRR would require 5,051 AREMA units. UP Reply at III.D-66. This staffing is consistent with the Board's decisions in *AEPCO 2011* and *WFA I*. On rebuttal, IPA claims IRR would require only 4,297 units, and just three signal maintainers, without a signal technician. IPA Reb. at III-D-69. IPA has not shown that this staffing would be sufficient.

First, IPA does not even try to rebut UP's evidence that four signal maintainers are needed to maintain 5,051 AREMA units. Even if the Board accepted IPA's revised calculation of 4,297 units, limiting staffing to three maintainers would still result in a ratio of one maintainer to 1,432 AREMA units, higher than the ratios the Board accepted in *AEPCO 2011* (1,250 units per maintainer) and *WFA I* (1,239 units per maintainer).[23] IPA originally proposed staffing levels at a ratio of one maintainer for 1,087 signal units. IPA Opening at III-D-82.

IPA argues for the first time on rebuttal that its higher ratio is justified because Class I railroads "have much older signal equipment, which typically is not uniform by equipment type and which is made by various manufacturers" and therefore requires more attention than newer

[23] IPA's revised calculation contains several obvious errors. For example, IPA says that it accepts UP's crossing inventory (IPA Reb. at III-F-124), but it continues to rely on its original inventory in counting AREMA units. IPA Reb. workpaper "IPA Signals and Communications Rebuttal.xlsx," Tab "AREMA Count," Cell F22. IPA also makes unexplained adjustments that neglect to account for signal heads at automatic signal locations. IPA Reb. workpaper "IPA Signals and Communications Rebuttal.xlsx," Tab "CP & Signal Equip Count," Cell I32.

equipment. IPA Reb. at III-D-70. It is too late for IPA to offer new support for its methodology. In any event, IPA's justification does not explain why it is appropriate to have a higher maintainer-to-AREMA-unit ratio than those accepted in *AEPCO 2011* and *WFA I*, where the SARRs also used new, uniform equipment.

IPA's new assertion that IRR would need fewer maintainers because they would travel no more than 89 miles to reach any point on IRR is also unpersuasive. IPA Reb. at III-D-70. The distance a maintainer must travel is only one consideration when determining the number of maintainers required. IPA fails to consider the other factors, especially the time involved in testing, troubleshooting, and actually maintaining each of the units.

Second, IPA provides insufficient evidence that IRR could operate without a signal technician, which would be inconsistent with the Board's acceptance of a signal technician in *AEPCO 2011* and *WFA I*. IPA tries to distinguish these cases by claiming that, unlike the SARR in *AEPCO 2011*, IRR is not "geographically far-flung," and that the SARR in *WFA I* had more control points than IRR would have. IPA Reb. at III-D-70 n.32. But those arguments miss the point. Maintainers do not have a signal technician's higher level of expertise in testing and troubleshooting electronic systems, which IRR would need in situations that require greater skill. UP Reply at III.D-67. In addition, IPA claims, again for the first time on rebuttal, that "[i]t is also common practice for the C&S Supervisor to assist the Signal Maintainers with such testing periodically." IPA Reb. at III-D-71. Even if that were so, such periodic assistance would not obviate the need for a trained signal technician.

C. Other MOW Cost Issues

In general, the remaining MOW cost issues have been adequately addressed in the prior submissions. Just a few points merit a brief discussion.

Rail Grinding. The Board has consistently treated rail grinding as an operating expense in prior decisions. *See, e.g.*, *AEPCO 2011* at 77; *WFA I* at 71. Moreover, UP treats these costs as an operating expense in the real world. UP Reply at III.D-69 to D-70. While not disputing either point, IPA continues to assert that rail grinding costs should be capitalized, citing a 2009 UP document describing an accounting practice that is no longer in effect. This superseded description is not a basis for departing from Board precedent and UP's current practice.

Yard Cleaning. UP proposed to increase the number of working days per year required to clean IRR yards from three (as IPA proposed) to five to reflect additional time needed for mobilization and demobilization of the yard cleaning operation. UP Reply at III.D-72. IPA states that Mr. Davis has "no idea why two days of mobilization/demobilization of unspecified equipment would be needed" since "many" yard cleaning machines can be trucked. IPA Reb. at III-D-76. The answer is that two days (one for each yard) are needed because there is travel time to and from the yards, and at least some time is needed to unload and set up equipment once it arrives at a yard and then to reload the equipment following cleaning. UP's evidence on this point shows that the proposed addition of one day for each yard is reasonable, even if some machines could be trucked.

Ballast Cleaning/Undercutting. IPA proposes only 1.4 hours for mobilizing the ballast screen operation, and an equal amount of time for demobilizing. As UP showed, this assumption is unrealistic. UP Reply at III.D-70 to D-71. A conservative estimate would be one day each for mobilization and demobilization. *Id.* On rebuttal, IPA presents several hypothetical scenarios to support its original estimate, including (i) scheduling of IRR work near times when similar work is performed on adjacent UP lines; (ii) shifting contractor operations to IRR when heavy traffic interfered with scheduled ballast cleaning on UP; and (iii) weekend work on IRR track by ballast

crews on assignment to UP. IPA Reb. at III-D-75. The scenarios themselves are unrealistic, and they rely on highly unrealistic assumptions about the time needed for movement of equipment from UP track to/from IRR and for equipment set-up and reloading.[24]

VI. THE BOARD SHOULD ACCEPT UP'S EVIDENCE ON DISPUTED ISSUES RELATING TO G&A EXPENSES AND AD VALOREM TAXES.

A. General & Administrative Staffing Levels

IPA takes issue with seven G&A positions that UP proposed, but it fails to explain how IRR could perform the tasks associated with those positions without this staffing.

Administrative Assistants. On reply, UP showed that IRR requires a third administrative assistant to support the Finance and Accounting staff and to assist with other functions, including corporate communications and public relations, investor relations, expense account management, and a compliance/ethics hot line. UP Reply at III.D-29 to D-30. IPA does not contest the need for these functions but asserts that two assistants are sufficient. IPA Reb. at III-D-26. However, IPA does not explain how two assistants could perform both the tasks IPA designated for them on opening and the additional tasks that UP identified and IPA accepted.

Treasurer. UP showed that IRR would require a separate treasurer position, consistent with the decisions in *Xcel 2004* and *WFA I.* The Vice President-Finance & Accounting, who would supervise Finance and Accounting employees, handle investor communications and risk management, and possibly manage a pension plan, could not also manage cash flow (especially

[24] IPA appears confused by UP's statement that only 35% of the track would be cleaned in the DCF period. IPA Reb. at III-D-75 to D-76. UP's witness accepted IPA's assertion that because IRR was a new railroad with new track, ballast cleaning would not be necessary during the first three years of IRR's operations. IPA Opening at III-D-91. IPA proposed that IRR would begin cleaning 5% of the track miles annually starting in year 4 of the DCF period. *Id.* Five percent per year for the seven remaining years of the DCF period equals 35% of the track.

given the time-sensitive issues caused by the ISS settlements process), IRR credit worthiness, and long term investments and debt. UP Reply at III.D-33 to D-34.

IPA attempts to distinguish *WFA I* and *Xcel 2004* by claiming that IRR would earn less revenue than those SARRs. IPA Reb. at III-D-32. However, IRR's use of ISS settlements and its greater number of customers and wider variety of traffic would create a greater workload: the other SARRs had simpler collection processes, fewer customers, and only coal traffic. *AEP Texas* and *TMPA*, which IPA cites, do not support a single Vice President/Treasurer position here. In *AEP Texas*, there was more staff to support the Vice President/Treasurer, and in *TMPA* the railroad failed to address the shipper's arguments.

IPA also claims that IRR's use of the ISS system does not require a separate Treasurer (IPA Reb. at III-D-28), but IPA focuses only on the time lag caused by the ISS process and ignores the activities needed to predict and manage payments. IPA also ignores the fact that the Vice President will be responsible for investor communications and risk management.

Assistant Controller. IPA claims the Controller could supervise revenue accounting staff and that there is no need for an Assistant Controller. IPA Reb. at III-D-33. However, IPA does not address how one person could handle management of accounting and financial reporting functions, operation of the stand-alone computer system, interaction with audit and tax personnel, and oversight of the property accounting function. UP Reply at III.D-36 to D-37. UP's proposal for only a Controller and an Assistant Controller is more conservative than the staff the Board approved in *WFA I*. *WFA I* at 43-44.

IT Programmer. UP showed that IRR would need a third programmer to develop system enhancements needed to integrate IRR's stand-alone computer systems, as well as for ongoing integration needs. UP Reply at III.D-44 to D-45. On rebuttal, IPA claims that two programmers

are sufficient. IPA Reb. at III-D-35 to D-36. Contrary to IPA's assumption, UP did not rely on its own IT staffing levels. Instead, it relied on trade publications, real-world experience with modern technology, and recent Board decisions, especially *WFA I.* IPA's reliance on Mr. Kruzich's experience at KCS over a decade ago is of limited use when considering IRR's technological needs. Today's railroad technology requires integration and coordination of numerous computer systems and processes, including smart phones, tablets, and the Internet.

IT and Operations Support Technicians. UP showed that IRR would need five IT and Operations Support Technicians to provide on-site services on a 24/7 basis, rather than the single help-desk technician IPA assumes. In addition to providing IT support, these technicians would perform waybilling, first/last mile functions, and after-hours operations tasks. UP Reply at III.D-45 to D-47. IPA claims that on-call support is sufficient for these tasks or that other staff could handle the functions. IPA Reb. at III-D-37 to D-39. However, IPA did not provide for the necessary laptops, remote capability systems, and other programs necessary for support staff to resolve issues remotely. Moreover, IPA assumes that the technicians would live in Delta, a city of fewer than 4,000 people (*id.* at III-D-38), but it is more likely that staff would live in the larger city of Provo, approximately 74 miles from IRR headquarters in Lynndyl. In addition, IPA does not contest that waybilling, first/last mile, and operations tasks could arise after hours, but asserts that this would occur infrequently and could be handled by other on-site staff, or be resolved during normal business hours. *Id.* IPA did not provide on opening that these other positions would handle such tasks, and waiting until normal business hours to resolve problems is inconsistent with IPA's claim that IRR will operate with maximum efficiency, with faster transit times than UP and perfect hand-offs in a 24/7 operation.

B. Other G&A Issues

Executive Compensation. The parties agree that compensation paid by Providence and Worcester Railroad is a proper reference point, but IPA claims that using total executive compensation, rather than just salaries, would result in double-counting of fringe benefits. IPA Reb. at III-D-39 to D-40. However, both parties derive fringe benefit ratios from benefits provided to all employees, which do not cover stock options and other benefits confined to executives.

IT Systems. UP accepted IPA's accounting software package and added implementation costs at four times the software cost, a metric supported by at least four trade publications. UP Reply at III.D-51; UP Reply workpaper "ERP Implementation Costs.doc." IPA adds just one times the cost of software for implementation, citing Mr. Kruzich's experience and two Internet sources. IPA Reb. at III-D-44 to D-45. This evidence comes too late; IPA should have provided it on opening. Moreover, IPA's attempts to discredit the publications UP cited lack merit. IPA's two sources provide no more specificity regarding software type than UP's citations. In addition, Mr. Kruzich's analysis is based on his experience implementing a transportation system in the early 1990s. *Id.* IPA's reliance on this experience is undercut by the fact that it is dated and by IPA's own claim that "some software packages are much less expensive to implement than others and the costs can vary drastically." *Id.* at III-D-44 to D-45.

Outsourcing. On reply, UP accepted IPA's method of calculating outside legal spend but disagreed that 75 percent of the compensation of the Vice President-Administration, the full salary of the Manager of Safety and Claims, and 25 percent of the Administrative Assistant salaries should be treated as inside legal expenses. UP Reply at III.D-53. IPA complains that UP suggested a different approach in Docket No. 42127 (IPA Reb. at III-D-46), but UP simply adopted a more accurate approach in this proceeding. In addition, IPA primarily relies on a

Legal Times article that takes an "extremely broad standard of legal expense measurement as a percentage of revenue" (*id.* at III-D-54), and that article says nothing about how to allocate salaries of employees who spend only a fraction of their time on legal activities, or whether a Manager of Safety and Claims should be treated as a legal expense.

Attrition Rates. UP used its real-world attrition rates in place of IPA's three percent attrition rate from the MODOC Railroad Academy. UP Reply at III.D-55. IPA rejects UP's real-world rates because "Class I railroads currently have an aging population, and a high percentage of employees are retiring" and a new railroad allegedly would not hire many employees who would retire within a few years. IPA Reb. at III-D-56. However, IPA fails to support its assumption that IRR would not hire older people; at a minimum, this would violate employment discrimination laws. IPA also does not show that younger employees quit less frequently than older employees; indeed, the opposite may be true. And IPA does not show why attrition rates at a railroad academy (which would not include terminations or deaths) would better match IRR attrition than UP's real-world attrition rates.

C. Ad Valorem Taxes

On opening, IPA developed IRR's ad valorem taxes by calculating the amount of tax that UP paid per route mile in Utah in 2011 and multiplying by IRR's route miles. On reply, UP showed that Utah would tax IRR based on IRR's fair market value as measured by net railroad operating income ("NROI"). UP developed a "Unit Value Multiplier" that reflects the relatively higher NROI per route mile of IRR compared with that of UP, then applied that multiplier to UP's tax per route mile to calculate IRR's tax per route mile. UP Reply at III.D-84 n.181; UP Reply workpapers "UT ADC R884-24P-62.pdf" and "Ad Valorem Calculation.pdf."

On rebuttal, IPA does not dispute that Utah would calculate taxes based on IRR's NROI. Instead, IPA argues that its proration approach "has been accepted time and again by the STB in

previous stand-alone cost proceedings." IPA Reb. at III-D-84. However, it cites no supporting authority and fails to show why its approach is appropriate for a SARR in Utah.

In addition, IPA's criticisms of UP's calculations lack merit. *First*, IPA asserts that UP's NROI calculations for UP and IRR are not equivalent because the calculation for IRR does "not allow the IRR to benefit from accelerated depreciation," resulting in an "'apples to oranges' calculation." *Id.* at III-D-83 to D-84. However, UP's NROI calculations for both IRR and UP reflect straight line depreciation.[25] There is no "apples to oranges" problem.[26]

Second, IPA claims that UP uses "the STB's cost of capital as a divisor to determine the 'value' of the IRR and the UP system for ad valorem tax purposes" and argues that Utah "does not necessarily" rely on the STB cost of capital to determine asset value. IPA Reb. at III-D-84. However, UP's approach relies on Utah's fair market valuation of UP.[27] The calculation UP provided in its workpapers that included the Board's cost of capital was merely an example to illustrate the valuation concept Utah applies.[28] UP did not use that calculation to determine the unit value multiplier or to determine IRR's ad valorem taxes. As explained above, the unit value

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[25] UP Reply workpaper "IRR Ad Valorem_Reply.xlsx," Tab "Depreciation," Column H.

[26] An "apples to oranges" concern could arise in connection with a difference in calculating deferred *taxes*, rather than depreciation. UP used net revenues after taxes, UP 2011 R-1, Schedule 210 at line 67, in calculating UP's NROI value. If the Board believes it is appropriate to adjust the multiplier to eliminate differences between how UP and IRR manage taxes, including the impact of deferred taxes, it can substitute UP's net revenues before taxes in place of NROI in cells C21 and H21 of the income valuation spreadsheet located in UP Reply workpaper "IRR Ad Valorem Tax_Reply.xlsx," Tab "IncApp." (This would be simpler than using post-tax figures for IRR and UP.) UP's 2011 net revenue before taxes is $5,485,635,000. *See* UP 2011 R-1, Schedule 210 at line 62. This would result in a unit value multiplier of 1.22 based on IPA's opening revenue calculations, or 0.29 based on UP's reply revenue calculations.

[27] In calculating fair market values based on NROI, Utah applies its own measure of the cost of capital, which is similar to, but not precisely the same as, the Board's. *See* http://propertytax.utah.gov/centrally-assessed-properties/capitalization-rate-study.

[28] Cells H17 and H24 in the Tab "IncApp" of UP Reply workpaper "IRR Ad ValoremTax_Reply.xlsx" do not affect any of UP's calculations.

multiplier is determined by dividing IRR's NROI per route mile by UP's NROI per route mile. The resulting multiplier is then applied to UP's 2011 tax obligation on a per-route-mile basis.

Neither of IPA's criticisms affects UP's showing that the unit value multiplier approach better reflects Utah's real-world practice. The Board should therefore adopt UP's evidence.

VII. THE BOARD SHOULD ACCEPT UP'S EVIDENCE ON DISPUTED ISSUES RELATING TO ROAD PROPERTY COSTS.

UP and IPA continue to disagree on many issues relating to road property costs. On these issues, UP provided the best evidence. We discuss the most significant issues below.

A. Earthwork Unit Costs

On opening, IPA based its earthwork costs on a project undertaken by UP on its Powder River Subdivision between Shawnee and Jireh, in Wyoming. On reply, UP provided a detailed comparison of soil conditions along the 176-mile IRR route and the 15-mile Shawnee-Jireh route using U.S. Department of Agriculture ("USDA") shallow excavation data. UP's analysis shows that IRR construction would involve 12 times more "Very Limited" soil than the Shawnee-Jireh project, and thus that the common excavation unit costs of the latter project are not representative of excavation costs for IRR soils. UP Reply at III.F-16 to F-21. IPA argues on rebuttal that its review of soils maps shows the soils are comparable. IPA Reb. at III-F-33 to F-34.

UP's and IPA's analyses both show that at least 25 percent of the soils along the IRR route are "Very Limited," a rating used to describe soils that require significantly greater effort during excavation and construction operations due to unfavorable soil properties. UP Reply at III.F-18 (31 percent "Very Limited"); IPA Reb. at III-F-33 (25 percent "Very Limited"). IPA argues that, despite this finding and even though just two percent of the Shawnee-Jireh soils are "Very Limited," the Shawnee-Jireh unit costs should be used for IRR. IPA suggests that "Very Limited" soils require no greater effort when performing earthwork operations than "Somewhat

Limited" soils, but the USDA materials on which both parties rely state otherwise. UP Reply at III.F-17.

In addition, IPA errs in arguing that the RS Means Handbook excavation costs UP used are not better suited for "Very Limited" soils than the Shawnee-Jireh excavation costs. IPA Reb. at III-F-35. In fact, RS Means costs provide a more accurate representation of the overall unit costs for IRR because they reflect unit costs of excavation across a variety of soil conditions. RS Means thus takes into account the increased excavation costs of the substantial percentage of "Very Limited" soil on IRR, whereas the Shawnee-Jireh excavation costs reflect the soil conditions for a project in which only very small percentage of the soils were classified as "Very Limited." Accordingly, the Board should accept UP's use of RS Means unit costs.[29]

B. Culvert Size And Quantities

On opening, IPA failed to perform any flow calculations to verify whether its proposed culvert substitutions were feasible. On reply, UP's engineering experts conducted the necessary analysis and determined that IPA's proposed culverts were too small. UP Reply at III-F-36. On rebuttal, IPA introduces its own analysis. IPA Reb. at III-F-55. This new evidence comes too late. Had IPA submitted it on opening, UP would have shown that IPA's criticism of Manning's

[29] As UP explained on reply, even if the Board were to use the Shawnee-Jireh project as the source of earthwork unit costs, it could not rely on the costs as calculated by IPA because they excluded grading costs that the contractor chose to allocate to mobilization. UP Reply at III.F-22. On rebuttal, IPA asserts that UP overstates the amount of grading costs that the contractor classified as mobilization and that the correct mobilization percentage reveals no need to adjust the grading unit costs. IPA Reb. at III-F-37. But IPA's analysis is flawed in two critical respects. First, IPA uses invoices that identify "grading-mobilization" costs, but it assumes incorrectly that the costs apply to all of the project activities—thus reducing the amount that applied to grading. IPA Reb. workpaper "Mobilization.xlsx." Second, IPA's mobilization cost analysis starts with the contractor's second invoice because the first invoice, which contained the bulk of the mobilization costs, was submitted in 2007 and was outside the time frame IPA specified in its discovery request. IPA Opening workpapers "449120.xlsx" & "UP_AFE data.pdf."

formula is misguided. In particular, UP would have shown that Manning's formula and the formula IPA uses—which was developed by the Federal Highway Administration ("FHWA")—are both appropriate means of evaluating hydraulic capacity, but that the same formula must be used when comparing existing culverts to proposed culverts.

Moreover, had IPA submitted its analysis on opening, UP would have shown that IPA committed a critical error, and that when the error is corrected, the results plainly demonstrate that IPA's proposed culverts are too small. UP would have shown that IPA failed to perform a proper comparison: IPA erroneously compares UP's calculations for existing culverts (which UP performed using Manning's formula) with IPA's calculations for proposed culverts (which IPA performed using the FHWA formula). *Id.* at III-F-56. As a result of its apples-to-oranges comparison, IPA erroneously concluded that its proposed culverts were adequately sized. Based on UP's preliminary review, had IPA applied the FHWA formula to both existing and proposed culverts, it would have concluded that an even higher number of proposed culverts would fail to accommodate the capacity of existing structures than UP identified on reply. Specifically, an apples-to-apples comparison using the FHWA formula would have shown that 90 corrugated metal pipe ("CMP") culverts replacing existing pipe culverts and 35 CMP culverts replacing existing box culverts would require an increase in diameter or additional structures. In other words, the results from UP's hydraulic analysis using Manning's equation—which led UP to propose increasing the size of 50 CMP culverts replacing existing pipe culverts and 20 CMP culverts replacing existing box culverts—were conservative compared to the results obtained using the FHWA method.

C. Rail Price

On reply, UP showed that IPA's attempt to base the price of rail on indexing of 2007 prices for the purchase of 1.5 miles of rail failed to reflect actual rail costs in 2012, as shown in

UP's R-1 for 2012. UP Reply at III.F-45 to F-46. On rebuttal, IPA concedes that it "used the wrong index" to adjust rail prices from 2007 to 2012 levels in its opening evidence. IPA Reb. at III-F-83. IPA applies a new index to a 2007 price (*id.* at III-F-86), choosing the lowest possible index value from a workpaper UP's experts created to show that indexing old prices is a poor substitute for using up-to-date prices. UP Reply at III.F-46 & n.124. UP has the better evidence on this point, *i.e.*, a known 2012 price.[30] Moreover, having agreed that its initial indexing was flawed, IPA was not free to introduce an alternative method on rebuttal without showing that UP's reply evidence "was unsupported, infeasible, or unrealistic." *AEPCO 2011* at 44.

D. Access Bridges

On opening, IPA excluded thirteen railroad access bridges, without providing any evidence that IRR could function without such bridges. On reply, UP criticized IPA's omission. UP Reply at III.F-52. On rebuttal, IPA argues for the first time that the access bridges are not a "vital link" to the rail line. IPA Reb. at III-F-96. If IPA had presented this argument on opening, UP would have shown the bridges are needed to provide efficient access to the line, particularly in more remote areas. UP also would have shown that IPA's proposal to high-rail over the track at these locations (*id.* at III-F-99) would decrease MOW productivity and add delays that IPA does not account for in its RTC model or its operating plan.

In addition, contrary to IPA's claim (*id.* at III-F-100), UP did not overstate the costs of the access bridges. These access bridges are more costly than Type I railroad bridges primarily because they require a longer span than for the corresponding Type I railroad bridge.

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[30] UP's evidence also included rail prices from four work orders that were similar to, but more recent than, the 2007 work order IPA used. *Id.* at III.F-46. Those prices are consistent with the 2012 rail price reflected in UP's R-1. This is further evidence that IRR could not obtain rail at the price IPA invented.

E. Highway Overpass Costs

The Board has applied a ten percent contribution to highway overpass structures. *See, e.g.*, *AEP Texas* at 102-03. IPA fails to demonstrate why a departure from that precedent is justified here. IPA claims that IRR would need to pay only { } percent of highway overpass project costs, citing a single project for which UP's contribution was { } percent. IPA Reb. at III-F-108. But IPA's rebuttal workpapers show that UP contributed { } percent to a bridge project near Milford. IPA Reb. workpaper { } Because IPA fails to show that UP's contribution was limited to { } percent for each overpass at issue, the Board should adhere to its precedent.

F. Locomotive Shop

On opening, IPA outlined the functional specifications of its proposed locomotive shop, but it failed to develop costs consistent with its specifications. On reply, UP explained why IPA's proposed facilities were inadequate. UP Reply at III.F-77 to F-85. On rebuttal, IPA argues that UP's proposed facility includes unnecessary features, introducing new evidence regarding various locomotive facilities. IPA Reb. at III-F-136 to F-151. Had IPA submitted this evidence on opening, UP could have shown why these facilities are not comparable to the facilities IRR would need. In fact, IPA's evidence appears to be highly misleading.

1. IPA's new evidence is misleading.

IPA touts the Indiana Railroad's locomotive shop in Jasonville, Indiana as "functional, but not fancy." IPA Reb. at III-F-140. However, news articles indicate that in the fall of 2012 Indiana Railroad began construction on another locomotive facility near Jasonville, Indiana, that would "allow for everything from routine inspections to heavy maintenance at far less cost and greater efficiency." Progressive Railroading, Oct. 23, 2012, http://www.progressiverailroading.com/mow/news/Indiana-Rail-Road-starts-work-on-new-locomotive-shop-acquires-land-for-

transload-facility--33046. The article notes that the existing engine house "can't adequately accommodate the regional's 80-foot-long SD9043MAC locomotives." *Id.* The construction of this new locomotive shop shows that the existing facilities were not sufficiently "functional" to meet the railroad's needs.

IPA discusses another locomotive shop that already appears to have been replaced. This shop, which serves the Western New York & Pennsylvania Railroad ("WNYP") is referred to as the "former Falconer shop" on WNYP's website, and the site is apparently for sale. http://www.wnyprr.com (follow "News/Safety" hyperlink; then follow "Industrial Development" hyperlink). WNYP's new shop is located in Olean, New York. This Olean shop appears to be the same "large locomotive shop" that IPA cites to support the qualifications of the firm from which it obtained cost estimates for this litigation. IPA Reb. at III-F-151.

Finally, IPA's new evidence supports UP's position in important respects. For example, IPA characterized "the notion that the IRR needs to lift a locomotive" as "inexplicable." *Id.* at III-F-154. Yet, one photograph that IPA provides shows a locomotive raised on a jacking pad. *Id.* at III-F-148; *see also id.* at III-F-152 (photograph showing a drain inlet in the locomotive pit area, an element IPA criticized UP for including).

2. The Board should accept UP's evidence concerning structural issues.

On reply, UP provided detailed calculations to demonstrate that an 8-inch-thick concrete slab was necessary in the shop areas. UP Reply at III.F-78 to F-79. On rebuttal, IPA does not address UP's calculations, but it purports to support its use of a 6-inch slab by pointing to a Design Guide that states that "slabs for the very lightest occupancy should be not less than 4-inch thick, and slabs for other occupancies may be *empirically selected*, the following being *about minimum*." IPA Reb. workpaper "CRSI Design Handbook – Slabs on Grade.pdf." (emphasis

added); IPA Reb. at III-F-154. This vague statement, from a source that appears to be at least fifty years old, is insufficient to rebut UP's detailed calculations.

3. IPA continues to omit important elements from its locomotive shop.

UP pointed out on reply that IPA omitted the cost for a wash facility (UP Reply at III.F-83), despite IPA's claim that a "locomotive wash facility is also provided" (IPA Opening at III-F-64). On rebuttal, IPA retreats, stating that it "incorrectly described a separate wash facility rather than its inclusion of washing capabilities in the main shop." IPA Reb. at III-F-164. Yet, IPA still fails to account for any equipment or costs associated with washing capabilities. The Board should adopt UP's evidence on the wash facility.

IPA also asserts on rebuttal that a "man-lift" can be used in place of fall protection, but again, it fails to account for the costs. *Id.* at III-F-163. Finally, IPA concedes on rebuttal that it neglected to include concrete floors for its pits, but it continues to apply a unit cost for non-reinforced free-standing walls that is inappropriate for use with respect to more complex in-ground pits. *Id.* at III-F-157; UP Reply at III.F-79 to F-80.

VIII. THE BOARD SHOULD ACCEPT UP'S EVIDENCE ON DISPUTED ISSUES RELATING TO APPLICATION OF THE DCF MODEL AND MMM.

A. Equity-Flotation Costs

On rebuttal, IPA makes the contradictory claims that "equity flotation costs are already reflected in the Board's cost of equity determinations" and that "railroads do not incur these fees." IPA Reb. at III-G-2 to G-3. IPA is wrong on both counts.

The Board's cost of equity determinations for 2010, 2011 and 2012—the relevant years for the SAC analysis in this case—*do not* reflect any equity-flotation costs, as shown by the

Association of American Railroads' filings in STB Ex Parte No. 558.[31] However, railroads *do* incur such fees when they raise equity. *See AEP Texas* at 108. IRR would directly bear a cost to raise equity, just as IRR would bear other direct costs associated with constructing the railroad. The fees IRR must pay underwriters to raise the necessary financing are no different in kind from the amounts it must pay engineers to design the railroad.

In *AEPCO 2011*, the Board stated that an equity-flotation fee could be included in the SAC analysis if the defendant provided evidence of the required fee for a stock issuance of similar size to that needed by the SARR. *See AEPCO 2011* at 138. Here, UP provided evidence that IRR would need to raise approximately $400 million in equity, and UP identified six transactions in the relevant time period of roughly that size, for which the companies involved paid, on average, equity-flotation fees of 7.3 percent. UP Reply at III.G-2.

On rebuttal, IPA questions the relevance of the six transactions for IRR. IPA Reb. at III-G-4 to G-8. But the fact that none of the transactions involved a railroad is not material to the size of the flotation fees. The material issue is the size of the stock offerings. Moreover, the facts that none of the other transactions involved a start-up and that they involved firms with larger market capitalizations than IRR do not help IPA's cause. Those facts suggest that the average from the six transactions understates IRR's likely fees, because the risks associated with a small, unproven, start-up would tend to drive up the costs of floating IRR's equity.[32]

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[31] *See* Comments of the Association of American Railroads, *Railroad Cost of Capital – 2012*, EP 558 (Sub-No. 16) (Apr. 19, 2013) (detailed cost calculations show that no equity flotation costs were included); Comments of the Association of American Railroads, *Railroad Cost of Capital – 2011*, EP 558 (Sub-No. 15) (Apr. 20, 2012) (same); Comments of the Association of American Railroads, *Railroad Cost of Capital – 2010*, EP 558 (Sub-No. 14) (Apr. 29, 2011) (same).

[32] *See, e.g.*, Inmoo Lee, Scott Lockhead, Jay Ritter & Quanshui Zhao, *The Costs of Raising Capital*, 19 J. Fin. Res. 59, 59 (Spring 1996) ("For initial public offerings (IPOs) of equity, the direct costs [of raising capital] average 11.0 percent of the proceeds. For seasoned equity offerings (SEOs), the direct costs average 7.1 percent.").

Moreover, IPA does not identify any other stock offerings that should have been considered. Thus, UP's projected flotation fees of 7.3 percent for IRR are supported and reasonable.

IPA also asserts that IRR "would likely redefine its capital structure" to mitigate the cost of the flotation fees and thus UP's fees are "overstated." IPA Reb. at III-G-8 & G-10. However, IPA presents no evidence regarding how IRR would redefine its capital structure to reduce its financing costs, the feasibility of such a redefined structure, or the level of an allegedly more appropriate fee. Accordingly, UP has provided the only record evidence regarding the appropriate size of IRR's equity-flotation fees.

B. Debt Amortization

IPA departs from long-standing precedent by assuming that IRR's debt will not be amortized over 20 years, but instead that IRR will pay only the interest on its debt. This approach would entail a major modification to the DCF model; moreover, it is inconsistent with the assumption in the DCF model that the SARR's cost of debt will be locked in at the average cost of debt over its construction period.

On reply, UP challenged IPA's assumptions, which appeared to involve issuance of a 20-year debt instrument that would somehow reflect the railroad industry cost of debt, even though that cost is calculated based in part on instruments with much shorter intervals to maturity, and thus correspondingly lower yields, than a 20-year debt instrument. UP Reply at III.H-2.

On rebuttal, IPA claims that IRR would not issue a single 20-year debt instrument, but would instead use "a variety of debt instruments with a composite yield equal to the industry debt cost." IPA Reb. at III-H-5. In other words, IRR would be paying off old debt and issuing a variety of new debt during the analysis period. However, IPA ignores the fact that, in the DCF model, the cost of debt for the 10-year SARR period is calculated based on the weighted average of the debt rate during construction and does not change during the SARR period. IPA provides

no support for its assumption that IRR could issue new debt throughout the SARR period at rates that would average out to the rates available during the construction period.[33] Thus, IPA simply substitutes one unsupported assumption for another.

Because UP's debt amortization approach is consistent with precedent, while IPA's approaches rely on unsupported assumptions, the Board should accept UP's evidence.

C. IPA's Terminal Value "Correction"

Related to its failure to amortize IRR's debt, IPA asserts that there is a mismatch in the DCF model between IRR's assumed capital structure and the amount of tax deductible interest calculated as assets are replaced. IPA Reb. at III-H-12. IPA purports to address the issue by modifying the calculation of IRR future cash flows to assume that interest on the original debt will be paid forever. That is, not only does IRR fail to pay down its debt over the SARR period, it never does so.

IPA's assumption that the IRR interest payment would extend into perpetuity is not an appropriate remedy for the alleged mismatch. Again, in the DCF model, the cost of debt is locked in at the rates in place during the construction period. IPA's assumption that these rates will remain in effect forever extends into perpetuity its unsupported assumption that IRR could issue new debt at rates that would average out to the rate available during construction.[34]

D. Escalation Of IRR Operating Expenses

To account for traffic growth, IPA escalates IRR's operating expenses based on changes in ton-miles, supposedly to reflect "the shifting nature of IRR's traffic base." IPA Reb. at III-H-

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[33] In fact, IPA's workpapers include documents forecasting significant upward movement in interest rates between now and 2023. IPA Reb. workpaper "Rcaf0313.pdf."

[34] *See supra* note 33. On reply, UP described a more appropriate mechanism for eliminating the alleged mismatch. UP Reply at III.H-10.

17. UP agrees that the metric used to escalate operating expenses should reflect the shifting nature of IRR's traffic base. However, as UP explained on reply, use of ton-miles will overweight changes in the heavier commodities such as coal and underweight changes in lighter commodities such as intermodal, and costs to handle additional traffic are more closely tied to the number of cars than to tonnage. UP Reply at III.H-10 to H-11. The difference between using ton-miles and car-miles is particularly significant here because growth in coal volumes is forecast to be relatively flat, while growth in intermodal—the lightest traffic—is projected to be relatively high. *See id.*

On rebuttal, IPA says that use of ton-miles "implicitly takes into consideration both changes in traffic mix and traffic volumes." IPA Reb. at III-H-17. But the relevant issue is which method *better* accounts for those factors under the facts here. Because IPA does not dispute that use of ton-miles would overweight coal traffic and underweight intermodal traffic, the Board should escalate operating expenses using changes in car-miles.

E. Bonus Depreciation

In *AEPCO 2011*, the Board expressed concern that a complainant might try to exploit the SAC assumption of unconstrained resources during the SARR construction period by applying temporary bonus depreciation provisions to all of a SARR's assets. *See AEPCO 2011* at 141-42. IPA did that here, leading it to assume that more than half of IRR's total depreciable investment would be written off in the first year. On reply, UP proposed a simple method of addressing the Board's concern by providing IRR with the same bonus depreciation benefits that were available to UP over the period when the bonus depreciation provisions actually applied. UP Reply at III.H-7.

On rebuttal, IPA denies that UP is disadvantaged by IRR's use of bonus depreciation. IPA Reb. at III-H-9. However, allowing IRR to write off more than half of its depreciable

investment in the first year distorts the SAC analysis; it provides IRR with cost savings that are vastly greater, in relative terms, than the real-world savings that were available to UP, because IRR can invoke the SAC assumption of unconstrained resources during construction.

IPA also criticizes UP's proposed adjustment to IRR's tax savings on the ground that IRR and UP have a different mix of gross land and road property investments. *Id.* at III-H-9 to H-11. However, IPA's evidence does not show a significant difference in asset mix—certainly not one sufficient to justify IPA's application of bonus depreciation to all IRR assets—and IPA does not offer any alternate method of correcting the distortion to the SAC analysis created by its assumptions about bonus depreciation. Accordingly, the Board should accept UP's evidence.

F. Useful Lives For Asset Depreciation

IPA uses 15-year useful lives for depreciation for certain asset accounts, even though UP's reply identified the Internal Revenue Code provision that classifies these accounts as carrying a 20-year asset life. UP Reply at III.H-7 to H-8. On rebuttal, IPA ignores UP's evidence and relies on past practice to justify its use of 15-year asset lives. IPA Reb. at III-H-11 to H-12. The Board should correct this error and adopt 20-year useful lives for these assets.

G. Application Of MMM

1. The Board should accept UP's modifications to MMM.

If the Board finds that IRR's SAC revenues exceed IRR's SAC costs, it should apply MMM by developing the variable costs for the movements in the traffic group using the methodology the parties were ordered to apply in *AEPCO*. The Board recognized there that MMM would not be fulfilling its role of allocating SAC costs based on each movement's "relative share of the services provided, as measured by URCS variable costs" (*Major Issues* at 14) if a complainant posits a SARR that moves traffic in trainload service, but MMM calculates variable costs as though the traffic moved in carload or multi-car service. *See AEPCO June*

2011 at 2. The Board ordered the parties to address the mismatch between the costing and the actual movement characteristics by revising their variable cost calculations for carload and multi-car movements over the portion of the through movement replicated by the SARR to reflect the low-cost characteristics of the SARR movements. *See id.*

None of IPA's criticisms of the Board's order in *AEPCO June 2011* has any merit. *First*, IPA asserts that the order was inconsistent with MMM's focus on the defendant's "existing rate structure." IPA Reb. at III-H-24 (quoting *Major Issues* at 20).[35] However, MMM is designed to allocate total SAC costs among movements in the traffic group based on the relative share of service provided by the SARR.[36] Correctly reflecting the costs of services provided by the SARR is consistent with MMM's design and does not reduce MMM's overall focus on whether the defendant's rate structure produces revenues that exceed stand-alone costs.

Second, IPA asserts that the Board's order was inconsistent with Long-Cannon principles because "the resulting R/VC ratios will not reflect the demand characteristics of the traffic group relative to UP's cost structure." IPA Reb. at III-H-25. In fact, the resulting R/VC ratios will *more accurately* reflect UP's costs of handling the relevant traffic over the portion of its route replicated by the SARR.[37] Indeed, *IPA's* approach distorts demand characteristics and R/VC relationships by over-assigning costs to movements with trainload characteristics.

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[35] The language that IPA quotes from *Major Issues* addressed railroads' arguments that MMM was insensitive to the need for demand-based differential pricing; it did not address arguments about potential adjustments to reflect more accurately the costs of handling traffic over the portion of a route replicated by a SARR. *See Major Issues* at 20.

[36] The Board need not resolve the theoretical question whether the adjustments reflect the SARR's cost of handling the traffic or UP's cost of handling the traffic over the portions of its lines replicated by the SARR; the results would be the same in both cases. *See supra* pp. 7-8 and note 5.

[37] *See supra* pp. 7-8.

Third, IPA asserts that the Board's order required application of the default trainload empty return ratio of 2.0, rather than the actual empty return ratio of the affected traffic. IPA Reb. at III-H-26. However, use of a 2.0 ratio would greatly overstate the variable costs of the traffic, which primarily consists of intermodal trains with an actual empty return ratio of 1.1. Indeed, it would produce the plainly erroneous conclusion that it is more costly to handle the affected traffic in trainload-like service than in carload or multi-car service.[38]

2. The Board should use RCAF-A to escalate URCS variable costs.

If the Board applies MMM, it should use RCAF-A to escalate variable costs in the MMM model in order to reflect the impact of changes in productivity over the ten-year analysis period. The Board instructed parties in *AEP Texas* and *WFA II* to use the RCAF-A to escalate variable costs in the MMM model. *See AEP Texas 2009* at 14; *WFA II* at 30. IPA instead relies on the *OG&E* decision to justify its use of the standard URCS indexing approach in the MMM analysis. IPA Reb. at III-H-27. But *OG&E* involved short-term indexing of URCS costs to develop costs for specific quarters within one year for purposes of adjusting prescribed rates; it did not involve projection of cost changes over a ten-year period for MMM purposes.

IX. IF THE BOARD FINDS THAT IRR REVENUES EXCEED IRR COSTS, IT MUST PERFORM A CROSS-SUBSIDY ANALYSIS.

UP's reply evidence demonstrates that the cumulative present value of IRR's revenue shortfall over the 10-year SAC analysis period is approximately $267 million. UP Reply at I-6. As a result, IPA has not shown that the challenged rates are unreasonable, and this case should

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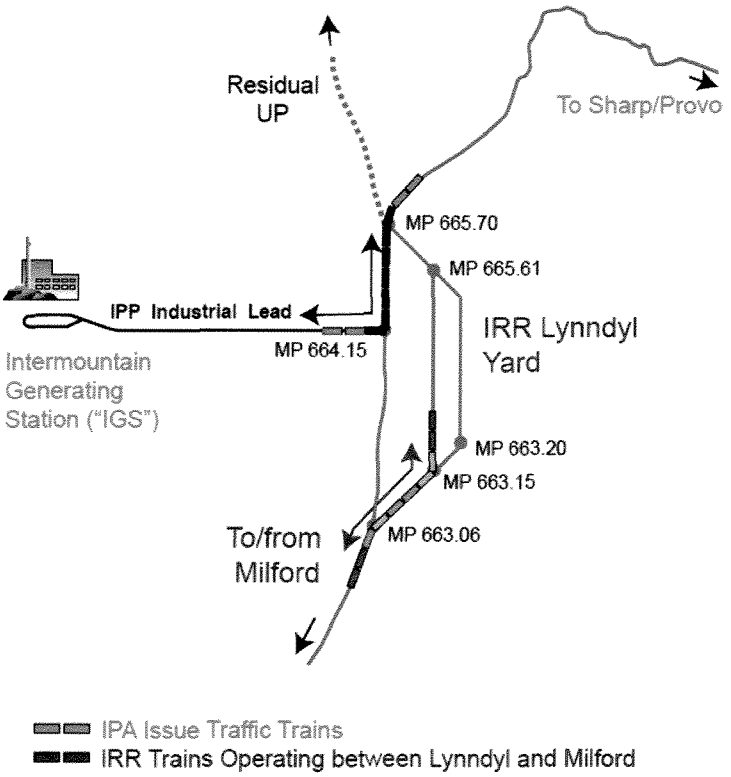
[38] UP proposed the adjustment to the default 2.0 empty return ratio for trainload traffic because the Board's Phase III costing program does not reflect the changes to intermodal costing that were adopted in *Review of the General Purpose Costing System*, 2 S.T.B. 659 (1997). The Board's waybill costing model applies trainload-type adjustments to intermodal shipments without setting the empty return ratio to 2.0. In other words, use of actual empty return ratios for intermodal shipments is consistent with the way the Board performs its waybill costing.

be dismissed. However, if the Board were to find that IRR revenues exceeded IRR costs, it would still have to analyze for potential cross-subsidies before it could award any relief.[39]

A. A Cross-Subsidy Test Should Be Applied To The Milford-Lynndyl Segment.

On reply, UP showed how a cross-subsidy test could be applied to IRR's Milford-Lynndyl segment. UP Reply at III.H-16. The Board's *PPL Montana/Otter Tail* cross-subsidy test comes into play "when traffic would be required to pay for facilities it does not use or when it would be required to pay a portion of costs that are attributable to other traffic." *PPL Montana*, 6 S.T.B. at 295-96. UP focused on the Milford-Lynndyl segment because a substantial amount of traffic that IPA selected for the IRR traffic group—traffic that IRR bridges between interchanges with UP at Milford and Lynndyl—moves over IRR using only that segment and does not share any facilities with the issue traffic. UP illustrated the point using this diagram:

[39] In addition, if the Board were to award IPA relief for overcharges, it should calculate interest on the overcharges using the T-Bill rate. The Board adopted the U.S. Prime Rate as the interest rate for reparations in *Rate Regulation Reforms 2013*, but application of that new rule to this case would be impermissibly retroactive. *See, e.g.*, *Landgraf v. USI Film Prod.*, 511 U.S. 244, 280 (1994). Applying a new rule imposing higher interest rates would impermissibly increase UP's liability for rates charged and collected before the Board adopted the new rule.



On rebuttal, IPA contends that the Milford-Lynndyl overhead traffic does share facilities with the issue traffic because the northbound overhead traffic overlaps with the issue traffic for 1.55 miles between MP 665.70 and entrance to the IPP Industrial Lead. IPA Reb. at I-43 & III-B-2 to B-3. However, IPA created the "overlap" by ignoring a necessary crew change between IRR and UP at Lynndyl. As shown in the diagram above, which reflects UP's RTC model, no "overlap" exists when that crew change is included in IRR's Lynndyl Yard.[40]

IPA also contends on rebuttal that it *could have* routed southbound Milford-Lynndyl overhead traffic to create a 1.55-mile overlap with the issue traffic. IPA Reb. at I-44 & III-B-3

[40] On opening, IPA acknowledged the need for this crew change and stated that it would occur in IRR's Lynndyl Yard. IPA Opening at III-C-25 ("Mr. Reistrup has allotted 30 minutes of dwell time at each of the IRR's Lynndyl and Milford *interchange yards* for trains that do not change consists at Lynndyl and Milford." (emphasis added)). Contrary to this testimony, IPA's RTC model has the northbound trains disappearing from the IRR mainline at Lynndyl without stopping for a crew change.

to B-6. But IPA did not use the alternate routing in its SAC analysis—its cost evidence continues to be based on the routings assumed in its opening RTC simulation. Moreover, its attempt to model the alternate routing shows an overlap for only two of 65 trains during the 7-day RTC period.[41] IPA's own RTC simulation thus refutes its claim that there is no meaningful distinction between the main line and the yard because "overhead train[s] can be interchanged on the main line as easily as in the Lynndyl Yard." IPA Reb. at III-B-2.

IPA also suggests that Lynndyl Yard is not a different facility than the main line, but rather the equivalent of a "passing siding." *Id.* However, Lynndyl Yard is more properly regarded as an end point of a line that IRR uses to bridge traffic between UP at Milford and UP at Lynndyl. It is separate from the line that IRR uses to move issue traffic from Provo to IGS. The two lines touch only at the single point where they cross, at the north end of Lynndyl Yard.

IPA further argues that the absence of an overlap should not matter because "it would be more expensive to construct, maintain, and operate the yard track in the absence of the main line." IPA Reb. at I-45; *see also id.* at III-H-37 to H-38. But IPA's position is contrary to precedent. Even if the presence of the main line might somehow reduce the costs associated with the yard, that would be irrelevant: the touchstone for application of the cross-subsidy test is whether non-issue traffic operates over the same lines as the issue traffic. *See Otter Tail* at 10 (discussing whether cross-over traffic "use[s] the core facilities"). Accepting IPA's logic—that "'the average costs of serving customers decreases as the volume of business increases over a network,'" IPA Reb. at III-H-38 (citation omitted)—would be the end of the cross-subsidy test. This logic would allow issue traffic to benefit from cross-subsidies generated by non-issue traffic

[41] *See* IPA Reb. workpaper "IPA_Base_Case_Final.zip." IPA refers to three trains, apparently because it included the "warm up" and "cool down" periods for the simulation in its analysis.

moving on lines physically separated by hundreds of miles from the issue traffic route, on the theory that the lines used by the issue traffic benefit the other traffic by permitting common headquarters facilities and staff, computer and communication systems, maintenance facilities, equipment, train crews, purchasing, and so on.

Moreover, even if a 1.55-mile overlap existed—which it does not—such a minimal overlap should not allow IPA to avoid a test for cross-subsidy. IPA asserts that UP is seeking a "rule that would prevent a SARR from including any facilities beyond the minimum needed to serve the core traffic." IPA Reb. at I-45 n.20. That is incorrect. IPA may extend its SARR to serve the origin and destination of all traffic in the SARR traffic group. And that traffic group may include the Milford-Lynndyl overhead traffic (because it shares lines used by other cross-over traffic that does use lines used by the issue traffic). But IPA should not escape a cross-subsidy test when it designs a SARR with *de minimis* overlap between the route used by the issue traffic and a segment that constitutes a rich source of cross-over revenue to the SARR.

B. The Board Should Adopt UP's Proposed ATC-Based Cross-Subsidy Test.

On reply, UP proposed an ATC-based test for cross-subsidy that differs from the Board's *PPL Montana/Otter Tail* test in one critical respect: rather than test the viability of the SARR's core facilities (*i.e.*, the facilities used by the issue traffic) by assigning those facilities all of the contribution from cross-over traffic that uses both the core facilities and the secondary facilities (*i.e.*, the facilities not used by the issue traffic), UP's test would use ATC to allocate revenues from cross-over traffic between the core and secondary facilities. UP Reply at III.H-19. UP's proposed test follows directly from the Board's justification for adopting ATC—that ATC is the best method of allocating cross-over revenues in accordance with stand-alone costs short of performing a full SAC analysis. *See Rate Regulation Reforms 2012* at 7. In other words, if ATC is an appropriate method of allocating cross-over revenue to particular line segments in

accordance with relative SAC costs, then there is no reason to assign all of the contribution from cross-over traffic to the core facilities when performing a cross-subsidy test.[42]

On rebuttal, IPA attacks UP's proposal by attacking ATC. IPA Reb. at III-H-43 to H-44. Essentially, IPA asserts that ATC is reliable enough to allocate revenue in accordance with SAC costs when it benefits the complainant—that is, when it allows the complainant to use cross-over traffic in its SARR to show that the issue traffic is cross-subsidizing other traffic—but not when it is used to test whether other traffic is being used to cross-subsidize the issue traffic in the complainant's SARR. However, *Coal Rate Guidelines* clearly proscribes cross-subsidy in both cases. *See PPL Montana Reconsideration,* 6 S.T.B. at 759. If the use of ATC is, as IPA says, a "necessary evil" when allocating cross-over revenue (IPA Reb. at III-H-44), it is equally necessary when testing for cross-subsidy of the issue traffic within a SARR.

Moreover, IPA is incorrect when it asserts that use of ATC is not necessary when testing for cross-subsidy because the test is performed "when actual SAC revenue and cost data have already been developed." *Id.* at III-H-44 to H-45. Adoption of some method of allocating revenue is necessary precisely because there is *no* SAC-based allocation of revenue between the core and secondary facilities of a SARR. IPA would prefer the current method, which arbitrarily assigns all contribution to a SARR's core facilities, but it provides no valid reason to use that method rather than ATC, which is designed to replicate a SAC-based allocation.

Finally, IPA mischaracterizes UP's proposed test as requiring the Board to perform a SAC analysis of the SARR's core facilities rather than a SAC analysis of the full SARR. *Id.* at

[42] As discussed above, UP does not believe the Board should allow the use of cross over traffic or ATC, but if the Board uses ATC to allocate revenues between UP and IRR to test for cross-subsidy, consistency demands that it use ATC to test for cross-subsidy between different segments of IRR.

III-H-45. UP's proposed test does not supplant the SAC analysis or reduce the scope of the complainant's SARR. It just relies on a more refined revenue allocation than the Board's *PPL Montana/Otter Tail* test to ensure that the complainant is not using traffic that shares no facilities with the issue traffic to cross-subsidize the issue traffic.

C. IPA Fails To Rebut UP's *PPL Montana/Otter Tail* Test Illustration.

If the Board does not apply UP's proposed cross-subsidy test, it should apply the *PPL Montana/Otter Tail* test, which UP illustrated in its reply evidence. UP Reply at III.H-17 to H-18. On rebuttal, IPA raises two objections to UP's illustration. Neither has any merit. *First*, IPA asserts that UP should have allocated ad valorem taxes using a mileage prorate. IPA Reb. at III-H-40. However, as discussed above in Section VI.D, ad valorem tax in Utah is a function of profitability, not route miles. UP therefore allocated ad valorem tax using the same indirect approach that it used to allocate G&A costs. *Second*, IPA asserts that UP should have allocated materials and supplies expenses directly based on the train and engine personnel attributable to the Provo-Lynndyl segment. IPA Reb. at III-H-40 to H-41. But materials and supplies expenses are more closely associated with operating manager expenses than with train and engine personnel expenses, so UP properly used the same indirect allocation for materials and supplies that it used for operating manager expenses.

X. CONCLUSION

For the foregoing reasons, the Board should dismiss IPA's claim that UP's rates in Item 6200-A of UP Tariff 4222 for transporting coal to IGS from an interchange with URC in Provo exceed maximum reasonable levels.

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CERTIFICATE OF SERVICE

I hereby certify that on this 14th day this August, 2014, I have caused both Highly Confidential and Public versions of the Final Brief of Union Pacific Railroad Company to be served by hand delivery upon:

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