Canadian Transportation Agency

Consultation on commercial market factors to be considered in determining fair and reasonable interswitching rates

Use of Market Factors to Determine Regulated Interswitching Rates

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1. EXECUTIVE SUMMARY

1. I prepared a report dated March 5, 2026, recommending a methodology for the Canadian Transportation Agency ("**CTA**") that takes into account commercial market factors in setting regulated interswitching rates that are "commercially fair and reasonable" under Section 127.1 of the *Canada Transportation Act* (the "**Act**").[1] I understand that my report was submitted to the CTA by the Canadian National Railway Company ("**CN**") on March 6, 2026 as part of its submissions in response to the CTA's Consultation on commercial market factors to be considered in determining fair and reasonable interswitching rates (the "**Consultation**"). Submissions on the Consultation were also filed on behalf the Canadian Competition Bureau (the "**Bureau**"), the Canadian Pacific Kansas City Railway ("**CPKC**"), and the FAIR Rail Coalition (the "**Coalition**"), collectively the "three submissions".[2] I was asked to review these submissions and comment on the positions they advance.

2. The submissions filed by the Bureau, CPKC, and the Coalition do not propose an operational methodology for incorporating commercial market factors into regulated interswitching rates. Instead, they primarily advocate continued reliance on cost-based approaches or raise concerns about the use of market-based benchmarks, without specifying how such concerns could be addressed within a coherent and implementable framework.

3. A suitable methodology must satisfy identifiable criteria: it must be feasible to implement, based on objective data, capable of consistent application over time, grounded in accepted economic and econometric principles, and sufficiently specified to allow transparent and replicable rate setting. The three submissions do not advance an approach that meets these criteria.

4. In contrast, the methodology proposed in my March report provides a fully specified, data-driven framework that relies on observed unregulated interswitching rates as the primary benchmark. By doing so, it captures relevant commercial market factors directly and avoids the limitations of cost-based methods, which omit demand, competition, and forward-looking considerations.

5. In preparing this report, I have relied on the materials cited herein.

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[1] "Use of Market Factors to Determine Regulated Interswitching Rates," March 5, 2026 ("March Report").

[2] Competition Bureau Submission to the Canadian Transportation Agency, "Re: Consultation on Determining Fair and Reasonable Interswitching Rates," March 6, 2026, ("Bureau's Submission"), In the matter of the Determination of the 2026 Regulated Interswitching Rates and Redetermination of Rates for 2024 and 2025 Submissions of Canadian Pacific Railway Company (carrying on Business as Canadian Pacific Kansas City "CPKC"), March 6, 2026 ("CPKC's Submission"), Fair Rail Coalition Submission "Re: 2025-26 Interswitching Consultation," March 6, 2026 ("Coalition's Submission").

2. NO PROPOSED METHODOLOGY IN SUBMISSIONS FROM THE BUREAU, CPKC, AND THE COALITION

6. None of the three submissions propose a methodology that the CTA could apply to incorporate commercial market factors into determination of the regulated interswitching rates. Instead, they focus on potential concerns that may arise with such an approach and do not propose any solutions to resolve these concerns within an analytical framework that the CTA could implement.

7. The Bureau proposes that the CTA continue to apply its cost-based methodology, suggesting that the CTA "should primarily rely on **cost-based estimates**, with commercial market rates used **only as secondary checks**, if used at all."[3] However, the Bureau does not propose a methodology by which commercial market rates would be used as a "secondary check."

8. CPKC proposes that the CTA's existing methodology based on costs should be largely maintained because it already addresses market factors, except that the methodology should be "updated to reflect the additional costs and risks associated with interswitching [Toxic Inhalation Hazard/Poison Inhalation Hazard] (TIH/PIH) hazardous goods."[4] However, CPKC does not articulate a methodology for identifying, quantifying, or systematically incorporating those additional costs and risks into the framework.[5]

9. The Coalition proposes that commercial market factors should be assigned little or no weight unless the CTA is satisfied that those factors "reflect conditions of effective competition."[6] However, it does not propose any methodology to assess whether the factors meet that criterion nor does it articulate what "effective competition" means in the context of interswitching services.

10. In sum, the three submissions do not set out a coherent or operational methodology. While they raise a number of considerations, these are not developed into a structured analytical framework that could be implemented as a methodology to calculate rates, nor do they articulate a sufficient set of criteria against which a rate-setting methodology could be specified and evaluated.

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[3] Bureau's Submission, p. 3 (emphasis in original).

[4] CPKC's Submission, ¶¶4-5.

[5] In my March Report, after reviewing the operational realities of transporting hazardous goods along with extensive data on interswitching rates provided by CN, I conclude that hazardous goods should receive a premium, but unlike CPKC, my report shows how to calculate that premium using unregulated interswitching rates as a benchmark. I find that dimensional loads and automobiles also require special handling and should receive a premium. Some shipment types that require special handling were not directly observable in the data I had access to for my report. These include temperature-controlled traffic, unusually heavy or high-density loads, security sensitive commodities, fragile or shock sensitive cargo, and traffic requiring dedicated or specially prepared equipment. See March Report, ¶¶8-10.

[6] Coalition's Submission, ¶17.

11. In my view, a methodology to calculate regulated interswitching rates must satisfy identifiable criteria, including the following:

    a. It must be feasible to implement within a reasonable timeframe, enabling the CTA to produce regulated rates for annual publication.[7]

    b. It must be reliable, in that it is based on objective, quantified data rather than based on qualitative or discretionary assessments.

    c. It must be sufficiently flexible to allow the CTA to incorporate updated data consistently each year, ensuring that regulated interswitching rates reflect current, rather than outdated, market factors.

    d. It must be grounded in sound economic principles and implemented using established statistical and econometric methods.

    e. It must set out a clear and fully specified procedure for translating observed inputs into regulated interswitching rates, with sufficient detail to guide implementation and avoid ambiguity.

12. Collectively, these criteria establish the conditions that any proposed methodology must satisfy to be suitable for determining regulated interswitching rates.

13. The submissions filed by the Bureau, CPKC and the Coalition do not propose a methodology that meets these conditions.

14. In contrast, the methodology I proposed in my March report satisfies these criteria:

    a. It can be implemented within a reasonable timeframe, enabling annual publication of regulated rates.

    b. It is based on observed market data for unregulated interswitching movements that railways collect in the ordinary course of business without the need for discretionary assessments.

    c. It is designed to be applied consistently each year using updated data.

    d. It is grounded in sound economic principles and uses established statistical and econometric methods.

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[7] The Act, Section 127.1(1).

e. It provides a clear and fully specified procedure for translating observed inputs into regulated interswitching rates using the regression analysis I proposed, including supporting computer code.

15. None of the other submissions proposes an alternative methodology to consider market factors. Instead, they propose that the CTA continue to rely on the existing cost-based approach, albeit with some proposed changes that have not been fully articulated. These are not methodologies that can be implemented by the CTA as set out in the criteria outlined above.

3. COMMERCIAL MARKET FACTORS INCLUDED IN COSTS AND CONCERN ABOUT DOUBLE COUNTING

16. CPKC argues that although the CTA's current methodology is cost-based, it already incorporates many commercial considerations, and that treating those same elements as separate market factors would risk "double counting" and distort interswitching rates.[8] CPKC further observes that some proposed market factors cannot be easily measured or separately integrated into the existing framework.[9]

17. I agree that adding market-based interswitching rates on top of the CTA's cost-based methodology would result in double counting, as cost drivers are already embedded in market-based rates. However, this concern does not arise through my proposed approach, which relies directly on market-based interswitching rates rather than combining them with a separate cost-based determination.[10] Such a concern could arise if the methodology relied upon a cost-based approach and then sought to add on an additional amount to account for market factors. For this reason, the more economically sound approach is one based on market rates because market rates take account of demand and cost, thereby avoiding a methodology that focuses solely on costs or with independent weight given to costs.

18. Market prices emerge from the collective behavior of buyers and sellers, each responding to information about costs, capacity, demand, technology, and expectations. Changes in underlying conditions—such as input costs or demand expectations—are reflected in observed market prices. As a result, prevailing market prices provide an economically coherent means of capturing the full set of commercial market factors, including both current and anticipated conditions, without requiring the explicit enumeration of individual factors.

19. Market-based rates therefore incorporate relevant supply-side considerations, including costs and capacity, as well as demand-side conditions, without necessitating a parallel methodology to adjust cost-based rates for each identified market factor.

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8 CPKC's Submission, ¶16.

9 CPKC's Submission, ¶18.

10 March Report, ¶¶3, 42-51.

4. COST-BASED APPROACH

20. All three submissions contend that little or no weight should be given to commercial market factors in setting regulated interswitching fees. Specifically: (1) the Bureau argues that rate setting should "primarily rely on cost-based estimates, with commercial market rates used only as secondary checks, if used at all;"[11] (2) CPKC proposes giving "full weight" to commercial market factors only in relation to TIH/PIH traffic, but without proposing a methodology for doing so;[12] and (3) the Coalition argues that no weight should be given to commercial market factors unless such factors reflect effective competition.[13]

21. From an economic perspective, these positions overlook the problems that arise when regulated interswitching rates are determined using a cost-based approach which creates a market distortion by decoupling the price of rail services from actual market conditions.

22. A common feature of cost-based methods is that they focus exclusively on costs—however imprecisely measured—while ignoring demand and other competitive factors. Economic principles hold that market outcomes reflect forces of both supply and demand.[14]

23. Extensive academic literature on the regulatory economics explains that cost-based price regulation fails in industries with large fixed and common costs and increasing returns to scale and scope, because prices based solely on costs cannot recover total system costs without arbitrary allocations and fail to reflect demand and competitive conditions.[15] In light of the

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[11] Bureau's Submission, p. 3 (emphasis omitted).

[12] CPKC's Submission, ¶¶41-43.

[13] Coalition's Submission, ¶17.

[14] "Supply and demand are the forces that make market economies work. They determine the quantity of each good produced and the price at which it is sold." Mankiw, N. Gregory. *Principles of Economics*, 4th ed. 2007. p. 63.

[15] "The FCC adopted cost- of-service regulation to set the unbundled network element prices. Thus reappeared the well-known problems of cost-of-service regulation, with its inability to correctly treat economies of scale and economies of scope and its use of arbitrary allocations of fixed and common costs to prices." Hausman and Sidak (2014) "Telecommunications Regulation: Current Approaches with the End in Sight." in *Economic Regulation and Its Reform: What Have We Learned?* p. 349.

"However, when actual competition appeared and was allowed to exist by the regulators, the economists' advice of setting prices as if they were the outcome of a competitive process soon led to a regulatory morass. Regulators could no longer depend only on cost factors in setting regulated prices. The outcome of a competitive process would also need to take into account demand factors and competitive interaction (oligopoly) factors, with the first set of factors difficult to measure and the competitive interaction factors unlikely to be agreed upon. While regulators had some imperfect information about costs, they typically had little or no information about demand and no well-developed idea regarding the effects of competitive factors." Hausman and Sidak (2014) "Telecommunications Regulation: Current Approaches with the End in Sight." in *Economic Regulation and Its Reform: What Have We Learned?* p. 347.

challenges of cost-based price regulation, regulators of many industries such as electricity, telecommunications, and oil and gas pipelines,[16] have moved away from cost-based price regulation in favor of a more market-based approach to regulation because

> *"Most economists conclude that cost-based regulation led to significant consumer harm" [and] "cost-based approach to regulation, which ignores demand factors and competitive factors, is wrong except under a very special set of assumptions… [which] never hold true, even approximately in the real world of telecommunications networks. Thus, the regulatory attempt to set prices independent of demand does not make economic sense. "*[17]

24. In the context of rail freight transportation, the economic literature concludes that:

> *"…Benchmarks of 'reasonable' rates that derive from the allocation of fixed costs across services and customers demonstrably produce inefficient and distortionary rates. This point has been forcefully and repeatedly made over the past 40 years, so we will …underscore the unambiguous conclusion from professionally accepted economic theory that any attempt to ensure that a rail carrier is made financially solvent through the use of allocations of unattributable joint and common costs that are independent of shippers' demands and willingness to pay will lead to gross economic inefficiencies."*[18]

25. Demand for rail services, including both current demand and expectations about future demand; actual and potential competition from other railways; and alternative transportation providers all affect rail freight prices. The forward-looking expectations about future demand and future competition are particularly important because railway assets are long-lived: investment decisions are made based on anticipated conditions over infrastructure lifetimes measured in decades. By omitting factors related to both current and future demand and competition, cost-based methods

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[16] "Traditional 'natural monopoly' sectors such as electricity, telecommunications, and oil and gas pipelines were restructured, as more market-based institutions replaced traditional cost-of-service regulation or state ownership in many jurisdictions." Rose, Nancy L. (2014) "Learning from the Past: Insights for the Regulation of Economic Activity" in *Economic Regulation and Its Reform: What Have We Learned?* p. 1.

[17] Jerry A. Hausman, "Regulated costs and prices and telecommunications," Chapter 12 in the International Handbook of Telecommunications Economics, Vol II., edited by Gary Madden Schoot J. Savage.(emphasis added)

[18] Mayo, John W. and Willig, Robert. D., "Economic Foundations for 21st Century Freight Rail Rate Regulation," Ch. 2 of "U.S. Freight Rail Economics and Policy Are We on the Right Track?", edited by Jeffrey Macher, John Mayo, 2019, Routledge (emphasis added). See also the National Academies of Sciences, Engineering, and Medicine, "Modernizing Freight Rail Regulation," Committee for a Study of Freight Rail Transportation and Regulation, 2015, pp. 5-6; Schmalensee, Richard L., Wilson, W.W. 2016. "Modernizing U.S. Freight Rail Regulation." Review of Industrial Organization 49 (2): 133–59; and Wilson, Wesley W., and Frank A. Wolak. 2016. "Freight Rail Costing and Regulation: The Uniform Rail Costing System." Review of Industrial Organization 49 (2): 229–61; Wilson, Wesley W., and Frank A. Wolak. 2022. "Price Benchmark Regulation of Multiproduct Firms: An Application to the Rail Industry." Journal of Law and Economics 65 (1Spec): S155-90.

risk producing benchmarks that do not accurately reflect market conditions and are therefore economically inefficient.[19]

26. A purely cost-based pricing methodology fails to capture supply and demand dynamics or reflect the true economic value of the network infrastructure being utilized. This limitation of cost-based approaches underlies economists' general preference for *market-based approach* rather than *cost-based approach*.[20] I further discuss the use of market-based approach and specific market-based benchmarks below.

27. The Coalition argues that current cost-based regulated interswitching rates are "fully compensatory" to railway companies, and even include a "profit component sufficient to provide a normal return on capital."[21] However,

> *"Compensatory rates cannot be determined by the regulator on the basis of cost data alone since the financial viability of any price depends also on the quantity of rail services customers*

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[19] Specifically in the context of reciprocal switching or haulage access, "cost-based pricing of the type used by the STB has an especially large adverse effect on investment because of uncertainty over future economic conditions. Much railroad investment is sunk and irreversible. If economic conditions take a turn for the worse — for example, an unexpected and significant decrease in demand for rail services — the sunk investments cannot be sold for use in another industry, nor can they be used elsewhere. But cost-based regulation, with sharing of railroad facilities, places an upside limit on economic returns to an investment. Thus, while there exists a limit on the upside of the (probability) distribution of potential economic returns due to the effect of regulation, no floor exists on downside outcomes due to the existence of sunk costs. The result is an asymmetric and truncated probability distribution of returns as shown in Figure 2, where C represents the limit on the potential upside in economic returns. Unless the access price accounts for this regulation-induced truncation effect, open access regulation will diminish the railroads' incentives for further sunk investment, such as in new tracks, bridges, tunnels, and terminals, by failing to permit the railroads to achieve a market return on those investments. This truncation effect will also retard the introduction of new technology in the railroad industry, because of the significant uncertainty related to the introduction of new technology…Cost-based regulation is an especially large disincentive on this type of sunk investment." Hausman, J.A., 2001. *Will New Regulation Derail the Railroads,* MIT working paper.

[20] See, for example: (i) the National Academies of Sciences, Engineering, and Medicine, "Modernizing Freight Rail Regulation." Committee for a Study of Freight Rail Transportation and Regulation, 2015, pp. 5-6; (ii) Schmalensee, Richard L., Wilson, W.W. 2016. "Modernizing U.S. Freight Rail Regulation." Review of Industrial Organization 49 (2): 133–59; and (iii) Wilson, Wesley W., and Frank A. Wolak. 2016. "Freight Rail Costing and Regulation: The Uniform Rail Costing System." Review of Industrial Organization 49 (2): 229–61.

[21] Coalition's Submission, ¶31. The Coalition also argues that CN and CPKC in aggregate receive sufficient average revenue required to cover all of their total costs – across all services, all traffic, all lines of business - and therefore the currents cost-based methodology for setting regulated interswitching rates "is commercially fair and reasonable." Their argument confuses systemwide revenues with interswitching revenues. Systemwide revenues reflect all services performed by the railways jointly, and cannot show whether one element, such as interswitching rates, are "commercially fair and reasonable." Coalition's Submission, ¶18-23.

are willing to buy at that price. Rational determination of prices must be based on both cost and demand conditions."[22]

28. Overall, the economic literature rejects cost-based regulation and emphasizes importance of considering demand and market-based factors in rate-setting. The three submissions' preference for maintaining the current cost-based approach, while disregarding commercial market factors, lacks economic justification.

5. USE OF MARKET RATES AS BENCHMARKS FOR INTERSWITCHING RATES

29. While the three submissions contend that little or no weight should be given to commercial market factors in setting regulated interswitching fees, they also address the use of commercial rates as benchmarks for setting regulated interswitching rates.

30. The Bureau submits that appropriate benchmarks should reflect "market conditions where competition is present and meaningful" and that "Rates from non-competitive markets, such as where only a single railway operates, do not serve as objective benchmarks."[23] The Bureau cites to an academic study arguing that "actual rates charged in corridors *served by two or more railways…* should be the market-based benchmarks" and submits that "*This same benchmark should be used for interswitching*."[24] (emphasis added). My methodology does exactly what the academic study cited by the Bureau recommends - unregulated interswitching rates from Canada and the U.S. are used under my methodology as a benchmark for setting the regulated interswitching rate. As for the Bureau's request for "two railways", unregulated interswitching at a minimum provides shipper with access to at least two railways or more – the terminal railway that directly serves the shipper, plus the railway(s) accessible via interswitching.[25]

31. The Coalition submits that to the extent market rates are considered, they must reflect conditions of "effective competition", emphasizing that the "essence of comparability of price is the degree to which the rate for one set of traffic resembles the rates for traffic that would prevail under conditions of effective competition."[26] Whereas the Bureau refers to rates where there are "two or more railways," as suitable benchmarks for interswitching, the Coalition states that rates charged

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[22] Mayo, John W. and Willig, Robert. D., "Economic Foundations for 21st Century Freight Rail Rate Regulation," Ch. 2 of "U.S. Freight Rail Economics and Policy Are We on the Right Track?", edited by Jeffrey Macher, John Mayo, 2019, Routledge. p. 34.

[23] Bureau's Submission, pp. 4-5.

[24] Bureau's Submission, p. 4, footnote 5.

[25] For example, a shipper with access to regulated interswitching in Windsor, ON has access to CN, CPKC, CSXT, and ETL and similarly a shipper with access to regulated interswitching in New Westminster, BC has access to CPKC, CN, and BNSF. See also March Report, footnote 31 for example of interchanges in the U.S. with multiple railways.

[26] Coalition's Submission, ¶¶14, 25-26.

where two railways are present "are safely ignored unless they can be proven to be subject to effective competition."[27]

32. As I explained in my March Report, market prices that reflect commercial reality need not correspond to the abstract concept of "perfectly competitive prices" that economists sometimes theorize could be obtained in hypothetical markets that lack the frictions that characterize markets in the real world.[28] The goal of interswitching regulation is to give shippers access to competing railways for line-haul movements. Unregulated interswitching transactions show what prices are being paid in the market for such access in the absence of regulated rates. Such market rates reflect *realized* access for unregulated interswitching services and actual traffic volume moving at these rates.[29] These unregulated rates reflect the ultimate objective of regulated interswitching: to ensure that access is provided and foreclosure does not occur.

33. Unregulated interswitching prices are not negotiated by shippers or with shippers. These are railway to railway prices. Unregulated interswitching rates reflect *repeated interactions between railways across a diverse range of interchanges*. These railways compete with each other (and with other modes of transportation) in many different geographic regions and for different traffic.

34. The Bureau and the Coalition do not name a specific type of rate (e.g. haulage or reciprocal switching) that would meet their requirements described above. In contrast, CPKC explicitly refers to the use of unregulated interswitching rates as a market-based benchmark as described below.[30]

35. CPKC submits that "interswitching rates in comparable markets could be a useful benchmark to assist the Agency in determining rates for regulated interswitching. However, there is presently no comparable market to the regulated interswitching market in Canada that could provide a useful

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[27] Coalition's Submission, ¶26.

[28] For example, prices posted at a supermarket reflect competition from nearby supermarkets, even if those competitors are somewhat less convenient for shoppers. Regardless of the extent of such competition, those would be market prices reflecting the commercial reality around that particular supermarket. March Report, footnote 36.

[29] These unregulated interswitching rates are market prices that railways pay to each other when providing access to line-haul movements. There may exist a concern that such access may be foreclosed if the terminal carrier charges interswitching rates that are high enough to foreclose access. However, there will be no such rates in the data I use because rates so high as to foreclose access will have no movement associated with them. These data are for actual interswitching movements that occurred because the price was not so high as to foreclose access.

[30] CPKC's Submission, ¶¶26-35. CPKC also describes haulage rates and deems them unsuitable as benchmarks.

benchmark."[31] Below I explain why unregulated interswitching rates in Canada and the U.S. provide a useful benchmark for market-based rates, in contrast to CPKC's statement.

5.1.1 Unregulated Canadian Interswitching Rates As A Market-Based Benchmark

36. CPKC dismisses unregulated Canadian interswitching rates as a benchmark because they claim that there are very limited number of such observations – nine carloads, or at most 48 carloads - in CPKC's 2024 revenue waybill data.[32] However, this conclusion does not align with CN data, which shows a substantially larger number of unregulated interswitching movements generally and specifically between CN and CPKC over comparable distances during the same period.[33]

37. CPKC's submission appears to reflect differences in *data sources* rather than an absence of data on unregulated interswitching movements involving CPKC. CPKC points specifically to the absence of records reflecting unregulated interswitching in CPKC's waybill data. However, interswitching and reciprocal switching charges are railway-to-railway payments settled through *separate* exchanges and *are not recorded in revenue waybills* under standard railway practices.[34] As a result, the limited observations in CPKC's waybill data are *not* indicative of a broader sample-size limitation; rather, they indicate that CPKC was looking to the wrong data source.

5.1.2 Shortline Interswitching Rates As A Market-Based Benchmark

38. CPKC argues that rates from interswitching involving shortline railways are not an appropriate benchmark, because

> "*Regulated interswitching is an activity occurring between two Class-I railroads, which have roughly equal access to markets and similar scope and scale of operations. This contrasts with short-line switching and haulage, which is an activity between a Class-I railroad and a much smaller railroad that most often has access to only one Class-I railroad and delivers all its traffic to that Class-I railroad. In many instances, the short-line railroad leases its trackage from the Class-I. As such, the competitive environment in which a short-line rate is negotiated is not similar to that in which an interswitching rate between two Class-1 carriers would be negotiated in a free market.*"[35]

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31 CPKC's Submission, ¶25.

32 CPKC's Submission, ¶¶26-28.

33 March Report, ¶59, Figure 5.

34 Railinc, Waybilling Best Practices, p.4, available at https://public.railinc.com/documents/railroad-waybilling-best-practices. See, also Railinc, Railroad Clearinghouse, available at https://public.railinc.com/products-services/railroad-clearinghouse.

35 CPKC's Submission, ¶30. Here, CPKC refers specifically to shortlines in Canada, but the discussion is applicable to shortlines operation in the U.S. as well.

39. CPKC further argues that shortlines have "lower rates" and also have reduced "opportunity cost considerations when assessing new business, whereas Class-I carriers often need to assess the capacity costs associated with new business."[36] To the extent that interswitching rates with shortline railways are observed to be relatively low, such evidence would mitigate concerns raised by both the Coalition and the Bureau regarding the potential influence of market power on interswitching charges.[37]

40. CPKC further notes that "while the Agency may be able to compel federally regulated short lines to provide rate data, it is CPKC's understanding that most of the short lines it works with are provincially regulated."[38] However, whenever shortlines interswitch railcars with a Class I railway, the transaction would show up in the Class I railway data whether it is an interswitching transaction at origin or at destination. Therefore, the Class I railway data will contain shortline interswitching rates and volumes of transactions at that rate between that shortline and that Class I.

41. Note that while CPKC notes that it does not observe charges for line-haul services provided by shortline railways,[39] my proposed methodology does not require such information. The analysis is limited to *interswitching services*, and CPKC necessarily observes all interswitching fees either paid to other railways for interswitching services or received by CPKC when it provides such services to other railways.

5.1.3 U.S. Reciprocal Switching Rates As A Market-Based Benchmark

42. CPKC argues that unregulated interswitching movements in the U.S. do not provide a valid benchmark for regulated interswitching in Canada, citing structural differences between the two countries' rail networks.[40] This concern, however, does not preclude the use of U.S. unregulated interswitching rates as a benchmark in principle: my proposed methodology allows for a simple control of any structural differences between the U.S. and Canada by including a separate variable in the regression that shows whether the interchange was located in either Canada or the U.S. as a characteristic of the interswitching movement.

43. In addition, CPKC asserts the following:

> *On network structure, the US rail network is considerably denser and more interconnected than the Canadian network. There are three times more Class I railways in the US, and approximately three times more track miles. Due to the*

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36 CPKC's Submission, ¶31.

37 Bureau's Submission, p. 4, Coalition's Submission, ¶14, 17.

38 CPKC's Submission, ¶31.

39 CPKC's Submission, ¶32.

40 CPKC's Submission, ¶¶33-35.

greater track density, there are many more interconnections and routing options for most rail traffic. The US rail network also includes approximately 600 short-line railroads, many of which are connected to multiple Class I railroads. It is rare for Canadian short-line railroads to connect to multiple Class I railroads. All of this adds up to greater optionality for rail routing in the US.[41]

44. If anything, these factors make the U.S. a better, not worse, benchmark for regulated interswitching rates. A more interconnected and denser network offers better access to shippers and likely results in greater competition between railways. This indicates that unregulated interswitching rates in the U.S. arise in a setting with more competitors, which is something both the Coalition and the Bureau view as desirable.

5.1.4 Setting Rates Based on Line-Haul Origin-Destination Pairs

45. In defining the relevant market for commercial market factors, the Coalition focuses on freight transportation services with rates analyzed at origin-destination pair levels, referring to the full line-haul movement from shipper origin to ultimate destination.[42]

46. In my view, line-haul origin-destination pairs are not suited as a methodological basis for considering commercial market factors in setting regulated interswitching rates because (1) it is contrary to how the regulated rates are set in Canada, and (2) it is contrary to how market rates are set for unregulated interswitching in Canada and in the U.S., and (3) it is not appropriate from a methodological perspective.

47. First, an approach based on line-haul origin-destination pairs is contrary to how regulated interswitching rates are currently determined in Canada. Current regulated interswitching rates in Canada are not specific to a particular interswitching location or line-haul origin or destination. They are the same across Canada and vary only with shipping characteristics such as distance and block size. Regulated interswitching rates do not vary based on geographic locations, let alone specific shipment origins or destinations. For example, the interswitching rate is the same in Alberta and Ontario for a single car shipment of identical interswitching distance.[43]

48. Second, an approach based on line-haul origin-destination pairs is also inconsistent with how unregulated interswitching operates in Canada and the U.S. While current unregulated interswitching fees are negotiated in relation to specific interchanges, for a given interchange, they typically do not vary based on the full line-haul origins and destinations.[44]

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41 CPKC's Submission, ¶34.

42 Coalition's Submission, ¶12.

43 March Report, ¶22, 27.

44 See March Report, footnote 31.

49. The manner in which both regulated and unregulated interswitching rates are set is consistent with the nature of the service provided by interswitching services (or reciprocal switching). It is a service that *provides access to another railway*. Once that access is available, the other railway connects to many points on its network or to many points connecting to other transportation networks. This is the key feature in both regulated and unregulated interchanges. Because the interswitching rate is a price of *access* paid by one railway to the other railway, it is typically not differentiated by the full line-haul origin-destination corridor. The only origin-destination dimension that matters is how far the shipper's origin is located from the interchange point at which interswitching occurs, not which ultimate line-haul destination the shipper chooses for the shipment.[45]

50. Third, setting rates based on origin-destination pairs or interchange location is not appropriate from a methodological perspective. The data used in my analysis include more than 8,000 origin-destination pairs and more than 100 interchange locations. Setting a separate interswitching rate for each origin-destination pair or interchange location would be administratively burdensome to the point of being wholly impracticable and it would likely be statistically unreliable, because many locations would have too few transactions to support robust estimates of general interchange rate patterns.

51. The Coalition also submits that the relevant product market for analyzing commercial rates is "freight transportation services" which is too broad.[46] For example, CPKC points to "the additional costs and risks associated with interswitching [Toxic Inhalation Hazard/Poison Inhalation Hazard] TIH/PIH hazardous goods."[47] My analysis shows that, for example, dimensional goods have distinct handling requirements that are reflected in their unregulated interswitching rates, and therefore distinct rates are necessary for at least some product categories.[48]

5.1.5 Concerns About Cherry-Picking Benchmark Rates

52. The Bureau cautions against cherry-picking market-based interswitching rates.[49] I agree and note that effective safeguards must avoid selective exclusion in either direction; a sound methodology should not systematically omit rates from the data without a sound reason.

53. To address this concern, my proposed methodology incorporates *all available* data for unregulated interswitching movements and relies on average unregulated rates as the

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45 My March report describes some shipment characteristics such as dimensional loads that may affect interswitching fees, but they apply in the context of interswitching movement. March Report, ¶ ¶8, 50.

46 Coalition's Submission, ¶11.

47 CPKC's Submission, ¶5.

48 March Report, ¶¶8-10, 70-76.

49 Bureau's Submission, p. 4.

benchmark. Established statistical techniques are proposed to control for observable differences across movements, including load characteristics and hazardous-goods handling.

54. The Coalition raises a concern that published interswitching rates may include rates that "do not move any traffic" and submits that if the CTA were to use market rates, then the CTA should verify that "the volume of actual traffic shipped pursuant to those rates is in some way meaningful."[50] My methodology relies on individual transactions, not published rates, so rates that have no traffic associated with them would not show up in the data used in my methodology. The more traffic moved at a given rate, the more weight that rate has in my econometric analyses. Hence, the method is designed to focus on the rates at which traffic actually moves.[51]

6. DATA COLLECTION

55. The Bureau submits that "in making its determination, the Agency should also consider whether the expected benefits of collecting and analyzing the additional data will outweigh the expected costs."[52]

56. In the March 6 filing, CN demonstrated to the CTA that the data required to implement my proposed methodology is already collected by the railways in the ordinary course of business. CN has also demonstrated that providing such data to the CTA need not impose undue costs on either the railways or the CTA.

57. Furthermore, the CTA's current cost-based methodology is costly, requiring yard visits to collect information from interchanges of different sizes, volumes, and characteristics to estimate service units.[53] In contrast, my proposed methodology is simple and requires only a straightforward regression analysis using standard statistical software that is commonly available, using the data that railways collect and share electronically in the ordinary course of business, and it is likely less burdensome for both the CTA and the railways.

58. CPKC also raised concerns about the provision of railway data to the CTA for the purposes of incorporating commercial market factors into regulated interswitching rate setting. CPKC argues that the CTA "does not currently have and could not obtain the data that would be required to incorporate such benchmark rates into its methodology."[54] CN has already demonstrated to the CTA, in its submission on March 6, the feasibility of producing data on a large number of

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50 Coalition's Submission, ¶28.

51 Coalition's Submission, ¶28, March Report ¶67. See also March Report, Appendix B.4.

52 Bureau's Submission, p. 4.

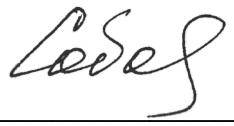
53 March Report, ¶21. See also, Determination R-2025-197, Appendix A 1.0, available at https://otc-cta.gc.ca/eng/ruling/r-2025-197.

54 CPKC's Submission, ¶25

regulated and unregulated interswitching rates where it acted as either the interswitching railway (terminal carrier) or the line-haul railway.

59. CPKC also submits that data on unregulated interswitching movements in the U.S. provided by either CN or CPKC would "represent only a small portion of the interswitching activity in the US.", notably only those that involve either CN or CPKC.[55] I note that the CTA's list of federally regulated railways actually includes other U.S. Class I carriers: BNSF Railway Company, CSX Transportation Inc., Norfolk Southern Railway Company, and Union Pacific Railroad Company.[56] My proposed methodology relied on CN data alone. Should the CTA adopt this methodology, the CTA can easily incorporate data from other railways. Additional data will provide more information – for example, on dimensional shipments – and hence improve statistical power of the estimates. Yet even without including additional data from other railways, my analysis relied only on CN data and the available sample contained a sufficient number of observations to support statistically reliable estimation. It is not necessary to observe the full population of interswitching movements to obtain robust estimates; standard econometric practice relies on sufficiently large and representative samples—a condition satisfied by the CN data. Although the inclusion of CPKC data would further enhance the precision of the estimates, the CN data alone is sufficient to provide statistically reliable predictions for regulated interswitching rates.

60. CPKC raised another concern that their U.S. data "is not formatted in a way that facilitates comparison to Canadian regulated interswitching rates, notably it does not include distance to the interchange or block size."[57] Calculating distances is a relatively straightforward exercise using existing tools that railways use in the ordinary course of business, and CN was able to supply such distances for their data as well as supplying block sizes.



Nadia Soboleva, signed June 19, 2026

55 CPKC's Submission, ¶35.

56 CTA, Federal Railway Companies, available at https://portail-portal.otc-cta.gc.ca/en/federal-railway-companies.

57 CPKC's Submission, ¶35.