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**SUBMISSION**  
**TO THE**  
**RAIL FREIGHT SERVICE REVIEW PANEL**  
**BY**  
**CANADIAN NATIONAL RAILWAY COMPANY**

**APRIL 30, 2010**

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## EXECUTIVE SUMMARY

CN welcomes the Rail Freight Service Review (the Review) initiated by the Canadian Government. The Review offers CN the opportunity to present its understanding of key transportation and logistics issues in Canada and to explain the major improvements being made to its rail service offering.

In line with the scope of the Review established at the outset by the Government, CN believes that the Panel's analysis and resulting recommendations need to reflect the full extent and complexity of the logistics supply chains operating in Canada. While the railways clearly play an important role, logistics supply chains involve a number of other participants including the shippers and receivers themselves, as well as terminal operators, port authorities, trucking and shipping lines. Since the focus of the Review is the overall quality of transportation service provided to Canadian industries, it is essential to understand and take into account the interdependence between the various participants and how the performance of each affects the others and, ultimately, the global level of service provided to customers.

Key in this respect is the recognition that railways cannot be arbitrarily held responsible for all failures in the system. Failures often happen because vessels are late or waterfront terminals are clogged. Failures can also happen because some shippers are reluctant to load seven days a week or because cars cannot be unloaded on time at destination. Good service is dependant on all supply chain participants working as much as possible in a synchronized manner. Balanced accountability is about recognizing responsibility more broadly and allowing normal commercial incentives to inject the discipline required of all participants.

To support the work of the Panel, Transport Canada commissioned a number of reports from third parties. The reports came to several important conclusions. For example, the CPCS report made the following observation: *"we have found none of the legislative regimes reviewed, including the regulation of LOS (Level of Service) in the US..., to be clearly superior in an overall sense to the regime for regulating LOS in the Canadian rail freight services industry."* CN is not surprised by such an observation. Combined with other remedies available to shippers, it is clear the Canadian regulatory regime is extremely robust and sufficient to protect shipper prerogatives.

Following its thorough, fact-based analysis of transit times and order fulfillment, QGI made the following very important statements:

*"while it might be expected that shippers with competitive access would have better service, there is no advantage in terms of transit consistency for CN customers with access to direct rail competition, as compared to those at non-competitive origins. In fact, shippers from non-competitive origins have somewhat better transit time consistency..."*

*For variables where one might expect there to be difference in performance based on the service or shipper characteristics, there was remarkably little differentiation in service performance....*

*When considered across size of car order, network/shortline/competitive status and province of origin, there is very little variation in the overall car order fulfillment rate for CN customers."*

Not only does the data demonstrate that CN does not discriminate on either its transit time or car order fulfillment, but also that there are no systemic market structure issues within the Canadian rail industry. This is a critical finding for the Panel to consider.

CN has been through a significant amount of transformational change over the last 10 to 15 years. Reinventing the Company, from a rather stodgy Crown corporation, with its attendant shortcomings, to a viable and competitive organization financed by public shareholders, the need for change was profound and had to be met steadily over time. In that context, CN knows that customers often had to cope with an unrelenting pace of new ideas and ways of operating, and that it was difficult for many to adjust. Resistance to change is understandable, but CN could not have survived as a private company without those fundamental changes and far-reaching innovations.

By now, CN is recognized as an industry leader in hub-to-hub performance. The data provided through QGI's independent analysis confirm the quality of CN's delivery and reliability. At the same time, CN acknowledges that there are a number of areas ripe for improvement in its service offering, in particular at the first and last legs of traffic movements, which are the ultimate customer touch points. More generally, CN has to improve the quality of the interface with its valued customers. A number of changes have already been or are being implemented to address these issues and to improve customer relations, as is more fully described in this submission to the Panel.

A key question that may concern the Panel is the permanency of the improvements being made by CN. Is it possible that CN could reconsider its commitments and eventually turn back the clock on the service changes being made? The simple answer is no. The more complete answer is that there is no market or commercial incentive for CN to unwind these needed changes and go back to ways that would damage its relationship with customers. Just the opposite, market and commercial incentives point to further service enhancements. Care must be taken to ensure that regulatory regimes do not remove these incentives, or worse, create unintended consequences as has often been the case in the past with overly burdensome regulation.

Consider the good faith offer of a Commercial Dispute Resolution (CDR) process that CN just reiterated with its Canadian customers. It provides for the same mechanism that parties in commercial relationships prefer. There is no reason why such commercial arrangements should not be available for rail services as well. CN offers this as a means to favour continued communications with customers even when there is a dispute. This is in addition to the CTA regulatory remedies that are already available to customers. CN considers that this approach is far superior to regulatory changes. As a result, CN has every intention to maintain the availability of a CDR process. In the context of this Review, CN has re-engaged with its customer base to encourage adoption of the CDR as a sound and tested approach to issue resolution.

CN's intention to establish lasting and mutually beneficial relationships with key players in the Canadian logistics system is also illustrated by the recent collaboration agreement reached with the Port of Halifax and its two terminal operators, CERES and Halterm, as well as our ongoing strategic partnership with the Port of Prince Rupert. CN is already in discussion and wishes to enter into similar agreements with other major Canadian ports in the near future.

The bottom line is that, with a robust regulatory regime already in place, the clear absence of discrimination across various traffic categories, and with CN's commitment to implement structural and lasting service improvements in the quality of the interface with its customers, there is no need to impose new regulations or to institute impractical oversight and penalty regimes that would arbitrarily target the railways in Canada.

The Government of Canada should continue to monitor the situation and always has the right to intervene if need be. But there is no need to institute any interventionist and costly regulatory mechanism at this point in time. Rail-based supply chains are simply too diverse and complex to lend themselves to burdensome administrative oversight, especially given that the unavoidable lag in determining, assessing and acting on dynamic information would make it difficult for regulation to solve the real-world problems faced, in real time, by shippers and supply chain participants.

Rather than creating heavy regulatory mechanisms leading participants to point fingers at each other, it is far preferable to rely on the powerful commercial incentives that encourage supply chain participants to address key service issues and make the required changes to grow together. On balance, Canada's policy of de-regulation in the rail sector has been a resounding success. There is absolutely no evidence supporting the case to turn back the clock towards re-regulation. The Panel should instead recommend that all parties build on the solid existing foundation that supports further improvements in the quality and the efficiency of the supply chains working in Canada. Recommendations should be based on continued reliance on normal commercial markets, operating to the benefit of Canadian supply chains and the Canadian economy as a whole.

## 1. Rail Freight Service – CN's Perspective

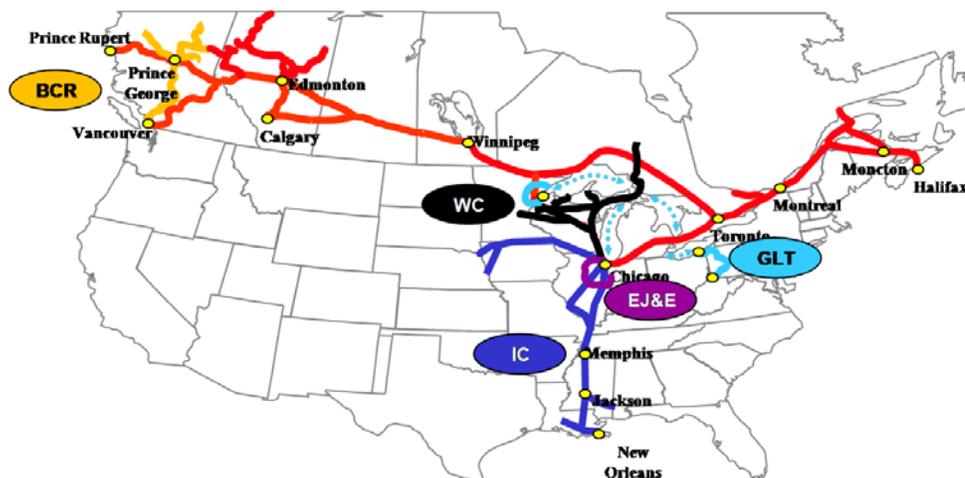
Service is one of CN's five core principles. CN understands that rail service has multiple dimensions and that the customers' service experience is shaped by their level of satisfaction across all these dimensions. These include empty car supply, type, and condition; timeliness of switching services at origin and destination; transit time and reliability; safe and damage-free movement; information handling and invoice accuracy; timeliness and ease of resolution of service issues.

For decades until the early 1990's, CN was chronically unprofitable, and the government had to support the ongoing operating losses and the investments needed to sustain our vast rail network through heavy taxpayer subsidies. In such a context, CN was effectively not incented to make difficult economic and financial decisions and, too often, accepted to respond to excessive or unsustainable customer demands on its assets. Customers had fewer complaints, but CN was essentially bankrupt.

Clearly, the model required significant and rapid change if CN was to remain a viable component of Canada's economic infrastructure for the long term. An aggressive plan was thus implemented to remedy this massive cost problem through restructuring and the search for greater productivity. This deep restructuring made possible the privatization of CN in 1995. The privatization then served as a platform to further accelerate the pace of change and innovation throughout the CN organization with a profoundly positive impact.

CN's improved profitability and renewed strategic focus provided the impetus to gradually invest over \$8 Billion to expand CN's network to reach and serve the markets of Canadian industries throughout North America. CN acquired five major railways between 1998 and 2009 (the Illinois Central, Wisconsin Central, BC Rail, Great Lakes Transportation, and the EJ&E). These acquisitions added 13,000 km of track, amalgamated 1,500 additional stations in single-line service and created a seamless and unique North American rail network, with unparalleled east/west and north/south reach. These strategic investments were enhanced with selected acquisitions of shortline railways, predominantly serving Canadian industrial customers.

**Figure 1 – CN's North American Footprint**

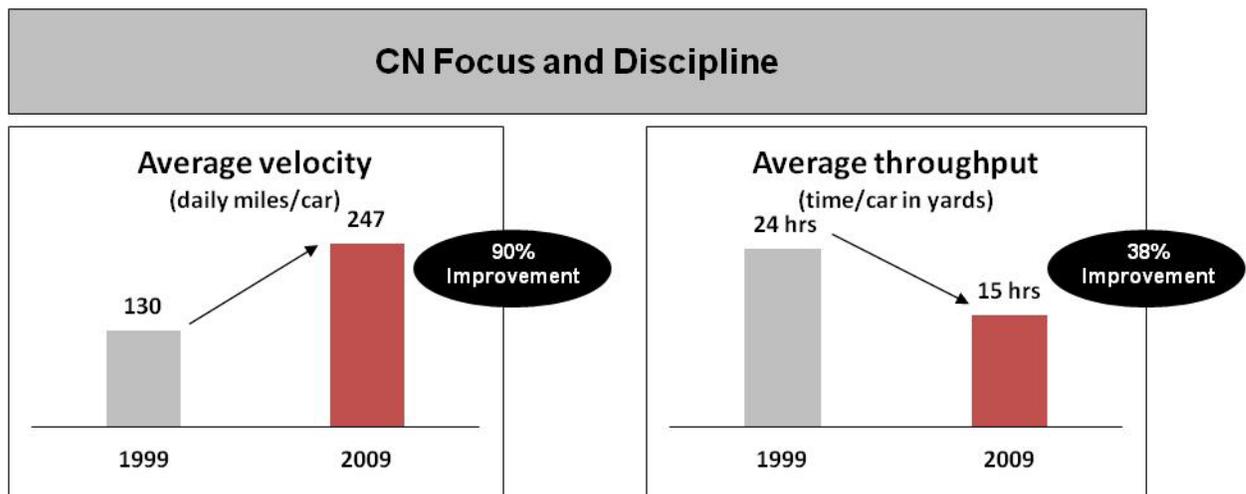


Over this same period, CN also invested over \$9 Billion in infrastructure capital to build capacity and fluidity within its network and to maintain the plant for safe operations. In what was an innovative move in the industry, CN also reached “routing protocol” and co-production agreements with other North American railways in order to ensure the interchange of traffic is done at the most service efficient interchange location and to further improve asset utilization.

Following in the footsteps of the Illinois Central, CN was the first major railway in North America to develop and implement the principle of Scheduled Railroad operations as early as 1998. The primary focus of this innovation is respect for the car trip plan rather than the traditional accumulation of tonnage to maximize trainload. That Precision Railroading business model is based on network balance, on disciplined adherence to the service plan, on efficient throughput in yards and on overall network velocity and throughput.

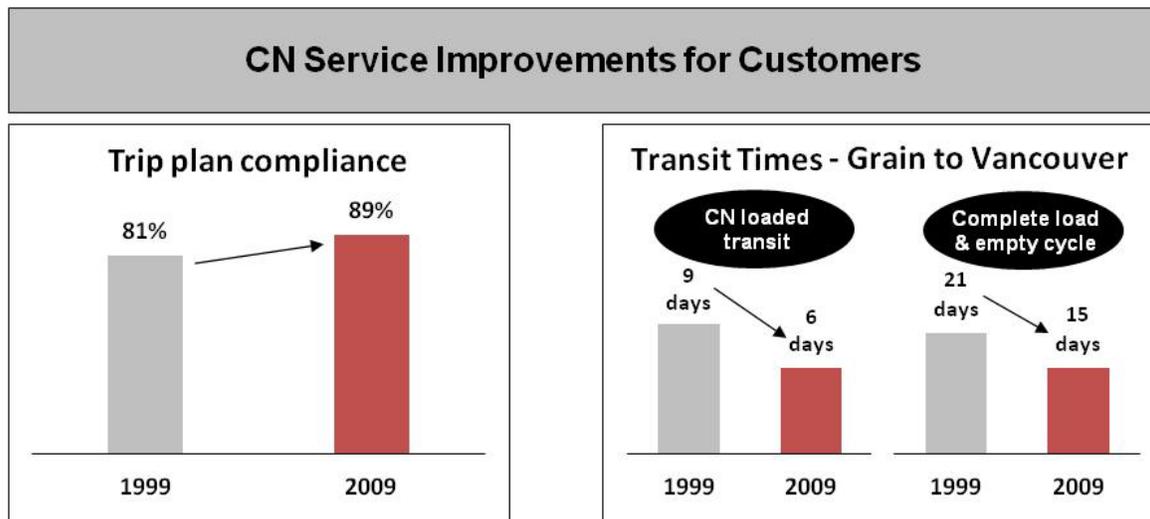
These innovations and initiatives brought tangible and measurable improvements in network efficiency that benefited our customers directly. As shown in Figure 2 below, our approach significantly improved speed and reliability. Most telling is a dramatic 90% increase in car velocity and a remarkable 38% improvement in yard throughput. Combined, these improvements dramatically reduced CN’s transit times, a fundamental driver of service quality in transportation.

**Figure 2 – The Power of Precision Railroading**



Source: CN SRS Transportation Data

Disciplined execution, in turn, also allowed CN to gradually improve trip plan compliance for its customers. This means not only faster and more consistent transit times to help customers better plan their business, but also increased car fleet capacity for both customer and railway owned fleet. The example of improvement in CN’s grain transportation supply chain in Western Canada is particularly compelling. In the last ten years, as measured by Quorum, the Grain Monitor, CN’s cycle time has improved by a full 30%. Faster service, in turn, means higher network throughput for Canadian farmers to market their grain in world markets. In essence, CN’s track record of performance improvements is truly the backbone of world-class rail and supply chain excellence.

**Figure 3 – Precision Railroading: Improved Customer Service**

Sources: CN SRS Transportation Data and Quorum Grain Monitor

CN's journey represents a major transformation. CN went from being a stodgy Crown corporation, dependent on government subsidies, to a viable, innovative and dynamic business enterprise; from an organization with insufficient discipline, to a highly innovative and reputed industry leader. Most importantly, this was a transformation that has allowed and encouraged simultaneous pursuit of quality service and tight asset utilization.

While CN's transformation brought positive service outcomes, CN acknowledges that changes were often implemented without enough advance discussion with customers, or without sufficient time for customers to adjust, and that this has been a serious source of customer dissatisfaction. CN realizes that the service improvements achieved over the last ten years were not uniformly applicable to all customer service dimensions.

But, working closely with customers and their associations, CN has identified and is in the process of implementing a number of service improvement opportunities. Many of these are found in the areas known as the "First Mile - Last Mile" components of service delivery. CN has already undertaken many changes and, in consultation with its customers, is planning to implement several others. Such changes will produce meaningful and comprehensive solutions that will adequately address the very limited issues raised in the studies and reports commissioned in support of the Panel's work. The following section summarizes CN's view with regards to the findings and the recommendations from these reports and explains the several service changes taking place at CN.

## 2. Insights from the Rail Service Review Process

CN recognizes the extensive fact-finding efforts and the sound manner in which the Review has been structured and carried out to date. The Panel members have taken the time necessary to meet and hear a range of stakeholders through a combination of individual meetings and field visits. They have also been provided with extensive background and technical information through Consultants' reports commissioned by Transport Canada and through stakeholder submissions.

CN welcomed the invitation to participate in the Review process and to discuss the issues with the Panel members and other stakeholders in the logistics supply chain, including a number of our customers. CN responded fully to all requests from the Review, including the extensive and very complex data requests from QGI.

CN firmly believes the Consultants' fact gathering reports and their findings serve as a useful starting point – particularly the Report entitled "*Analysis of Railway Fulfillment of Shipper Demand and Transit Times*". However, the main drawback for all the reports is their lack of data concerning the performance of the other service providers and participants in the logistics supply chains, such as terminal, vessel and truck operators. While several reports alluded to the fact that the performance of one participant in the chain – including customers themselves – directly affects the performance of the railway and others, no meaningful attempts were made to actually quantify these impacts or to otherwise recognize their importance, as they relate to the overall performance of the logistics supply chain.

The Consultants' reports and their findings are discussed below.

### 2.1. Fact-Based Study on Railway Fulfillment of Shipper Demand and Transit Times (QGI Consulting)

Transport Canada's terms of reference for this study required QGI to perform a quantitative analysis of the variability of railways' performance across various dimensions, namely: large customers compared to small customers; origins on shortline railway and secondary feeder lines versus main lines; province of origin; commodities; and finally, customers with access to one railway compared to those with access to two or more railways.

CN provided extensive and detailed event-based data to QGI in support of its complex analysis. The information supplied allowed QGI to make specific findings in respect of those components of service delivery identified in the terms of reference as being important to measure rail performance quantitatively – mainly transit time and car order fulfillment.

Following are CN's comments in respect of five key findings identified in this Report.

a. No Discrimination or Market Structure Issue

The QGI analysis concludes that no significant difference in the level of service provided by CN and no significant difference in the level of cars being supplied by CN was found when comparing customers and flows across the various dimensions analyzed. In other words, there was no evidence whatsoever of discrimination by CN in its service delivery whether the customer is large or small, located on a main line, a secondary or shortline, or whether the customer is served exclusively by CN or has access to other rail service providers. In the same manner the study confirms that there is no discrimination by province of origin or commodity type. This finding is of critical importance since the factual and quantitative analyses contradict the anecdotal testimonies that have often been made to the contrary. This is very good news in terms of market structure of the Canadian rail industry. It certainly calls into question the validity of claims calling for re-regulation of the industry.

Table 1 below summarizes the QGI findings on this important matter.

**Table 1 – No Service Discrimination by CN Across Key Dimensions**

	TRANSIT TIME		FULFILLMENT OF SHIPPER DEMAND		
			GRAIN		MERCHANDISE
	Speed (mph) *	Average CV** of transit time	Annual Net Order Fulfillment	Weekly 90% Order Fulfillment	Annual Net Order Fulfillment
<b>Shipper Size ***</b>					
Large	9.4	29.4	97%	56%	84%
Medium	8.7	27.7	99%	55%	86%
Small	11.7	26.2	98%	58%	86%
Very Small	8.0	27.1	100%	63%	88%
<b>Core and Non-Core Origins ***</b>					
Non-Core Origins	8.9	27.0	99%	58%	86%
Core Origins	10.8	32.7	97%	53%	87%
<b>Competitive and Non-Competitive Origins</b>					
Non-Competitive Origins	9.5	26.2	98%	57%	88%
Competitive Origins	9.5	31.6	99%	58%	83%
<b>Class 1 and Shortline Origins</b>					
Class 1 Origins	9.3	29.2	N/A	56%	86%
Shortline Origins	10.5	26.9	N/A	63%	84%

\* Calculated from QGI Report

\*\* The lower the coefficient of variation (CV), the fewer outliers (lower = better)

\*\*\* For transit time, QGI measures are for Non-Intermodal traffic only

Source: QGI's *Analysis of Railway Fulfillment of Shipper Demand and Transit Times* Report

QGI did identify a few targeted commodity groups and shipper locations that appeared to have slower or less consistent transit times than the balance of the network. CN fully investigated all of these instances and, in each case, identified the underlying reason for the apparent performance issues; none was the result of

discriminatory practices. In all cases, the appearance of non-performance was due either to very short distance moves, difficult winter conditions or a non-representative sample size.

To CN, these QGI findings are not surprising as they are fully consistent with CN's scheduled operating model, a model designed to achieve an efficient throughput of all traffic regardless of any of the attributes segmented in the report. In fact, CN's model is designed to optimize balance and network throughput by avoiding sources of complexity, such as discriminating between origins, commodities or customers.

Moreover, QGI's findings simply reflect the fact that normal markets are at work. In CN's case, fully two-thirds of all traffic originates at locations where customers have access to another railway. And that's not the whole story since the majority of all the remaining traffic has direct access to truck competition or to reload facilities that open additional trucking alternatives. Normal markets are precisely what shape the incentive to improve service and efficiency in the economy. There is substantial and effective competition, both within the rail sector and across transportation modes, that is at work in the Canadian rail transportation market.

**CN submits the QGI findings provide a factual basis to assert that there is no market structure issue needing to be addressed. Market dynamics and commercial initiatives are already shaping the service quality that CN must aim to deliver to customers. Fully two-thirds of CN's traffic originates at locations where customers have access to another railway competing with CN, and the majority of the remaining traffic benefits from competition provided or shaped by trucking alternatives.**

**As it is demonstrated that service performance for all traffic is similar, there is no sound policy reason or objective basis to introduce burdensome new regulation with respect to service performance. Such regulation would serve no useful purpose and could actually create unintended consequences that undermine the incentive to innovate and adjust along the whole supply chain.**

b. Weekend Effect is Significant

QGI noted that the time taken for the placement of cars at a receiver's siding varied widely depending on day of week arrival; they quantified this effect as being "considerable". In fact, the study confirms that traffic arriving at destination rail yards on Saturdays and Sundays took 23% longer to be placed than traffic arriving on other days of the week. CN confirms QGI's assessment that "it is highly likely that the majority of these delays are due to the railways needing to stage traffic on their own lines awaiting the opening of receiver facilities that do not accept cars on weekends". The majority of car delays at destination were in the forest products and grain products sectors, two particularly vocal groups calling for re-regulation.

When receivers or terminals do not unload during weekends, it unavoidably creates variability in the system, causing assets to sit idle waiting to be unloaded. These situations affect the transit time and the availability of empty rail cars back at the customer loading locations in the following week. The logistics supply chain is best

viewed as a “transportation conveyor belt”, which can only maximize service to customers and minimize overall costs if it operates at a constant velocity as often as possible. In other words, customers and terminal operators could actually help themselves if they agreed to bear the small incremental expense from working seven days a week.

In fact, it is difficult to understand how some customers and terminal operators can state that they value reliability and predictability on the one hand, but yet refuse to take the very action (working seven days a week) that would increase reliability and predictability on the other. The fact that the inefficiencies created by not working seven days a week are passed on to the other participants in the logistics chain such as the railways should not escape the Panel’s attention.

**CN submits that, volume permitting, all members of the logistics supply chain should be encouraged to work seven days per week as a priority and logical first step in order to significantly improve system reliability and further enhance customer service.**

c. Car Order Fulfillment Challenges

The terms of reference for the study also required QGI to determine the degree to which railways meet shipper requirements for the supply of empty rail cars. There are two methodological items in this part of the study on which CN wishes to comment.

The first item is in respect of QGI’s decision to measure car order fulfillment performance as the percentage of customers receiving 90% or more of their orders guaranteed by CN on a weekly basis. This approach, by default, classifies as a failure situations where a customer receives a full 89% of its guaranteed car orders in a given week. It is not clear why QGI chose the 90% threshold level, as it does not provide the actual car order fulfillment in any given week. For this reason, CN measures car order fulfillment by looking at the actual number of cars delivered to each shipper on a weekly basis. Table 2 below, which provides CN’s weekly car supply performance on the merchandise traffic, illustrates the difference in the respective approaches. As measured more properly, CN meets a more than respectable 96% of its customer orders on a weekly basis. There is still room for CN to improve its flexibility and performance to accept even more orders from customers, but, from all indications, this is an industry-leading performance in order fulfillment.

**Table 2 – Car Order Fulfillment Performance Measures**

	<b>QGI's Approach: Proportion of Guaranteed Orders Filled at 90% or More (Weekly)</b>	<b>CN's Approach: Proportion of Guaranteed Orders Filled (Weekly)</b>
<b>Merchandise Total</b>	<b>81%</b>	<b>96%</b>

Source: QGI’s *Analysis of Railway Fulfillment of Shipper Demand and Transit Times* Report and CN

The second item concerns QGI's finding that CN provided grain shippers with 90% or more of the cars they ordered only 50% of the time. This conclusion needs to be viewed with caution and placed in proper context. The QGI number is the proportion of the number of empty cars placed as measured against the service plan issued each Friday. As noted by QGI<sup>1</sup>, this measure does not take into account the changes that are made subsequently by agreement between the customers and CN. Unfortunately, these changes are not recorded in CN's system; however, CN can attest to the fact that they are frequent and that the 50% measurement is not necessarily a reliable indication of its true grain car order fulfillment.

QGI found that many of the merchandise and grain car orders from CN are subject to adjustments by customers after the cut-off date, affecting 15% to 17% of CN's total number of cars ordered by shippers. These changes often imply repositioning of cars that were already on their way to load, causing delays and reducing the overall fleet availability.

Having said this, CN acknowledges that there is significant room for improvement with respect to empty car placement performance for its grain customers. It is for this reason that CN developed its entirely new Scheduled Grain Plan that was fully implemented and rolled out on January 1, 2010. More details of this innovative program and its very encouraging performance metrics will be discussed in section 2.2 below.

It is important to underline that CN's ability to supply empty cars at the time and in the numbers demanded by customers does not only depend on its own performance, but is also the result of many external factors within the overall logistics supply chain. Examples include:

- Seasonality of shipments;
- Peaks in sales of products that require the same car types;
- Empty cars being delayed while returning from other railways in the US;
- Difficult weather conditions en route or at destinations preventing cars from being unloaded;
- Shippers not loading weekends;
- Receivers not unloading weekends; and
- Late vessel arrivals at ports.

Unfortunately, as already mentioned, the performance of the other participants in the logistics supply chain and the underlying impact on car availability and car supply performance has not been assessed in the context of this Review. This is an important gap in the information available to the Panel that must be taken into account prior to drawing any meaningful conclusions about the railways' performance. Indeed, the extensive interdependence of Canadian supply chain participants suggests that any system designed to single out the railways would be unfair. If the regulator were to penalize failures, a penalty would have to be imposed on each and every participant in the chain to be fair and effective. In our experience, such a system would be impractical and could create a level of complexity that is likely to destroy commercial incentives currently shaping behaviour in the transportation system.

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<sup>1</sup> P. 63 of QGI's Report.

**Railways cannot be expected to provide the buffer required to fulfill all of the cars requested by customers at all times, as each participant's own performance has a direct impact on the availability of empty cars. Expensive car fleets cannot be sized just to meet peak demand periods that are not sustainable or to cushion disruption in other parts of the logistics system. Similarly, penalties should not be imposed on the railways only, without due regard to the existence of complex and interdependent logistics supply chain.**

d. Forecasting – A Difficult Art

Forecasting, by definition, is a challenging exercise and highly subject to change. In a world where markets change continuously, often in unpredictable ways, and where customers have difficulty predicting their own sales and rail demand, forecasting is not precise by its very nature and needs to be revised on an ongoing basis.

In their analysis, QGI recognized that the whole process of forecasting and planning the resources required to handle transportation demand is very complex. QGI also appropriately mentioned that railways must invest in assets with a long life cycle and must do so taking into account the risk factors while ensuring a proper return on their investments.

To improve its forecasting activity, CN introduced a new forecasting system (SAS) in February 2009. SAS factors in five years of historical data involving over 140 economic indicators to generate a statistical forecast of CN's business. The system re-forecasts monthly for the following 24 months based on the latest volumes, changes in the economic indicators and specific customer feedback on their business. The forecast is then reviewed at both a high-level and a detailed level and changed where the business information indicates a different outcome. With over 5,000 active shipment lanes, the system allows for continuous updates to help ensure a more accurate forecast based on all available information.

SAS is recognized as an industry leading software in forecasting. It is used by many of the large retailers around the world and is now in use by three Class I railways in North America. However, while early results are encouraging, it can never be expected to forecast demand with perfect accuracy.

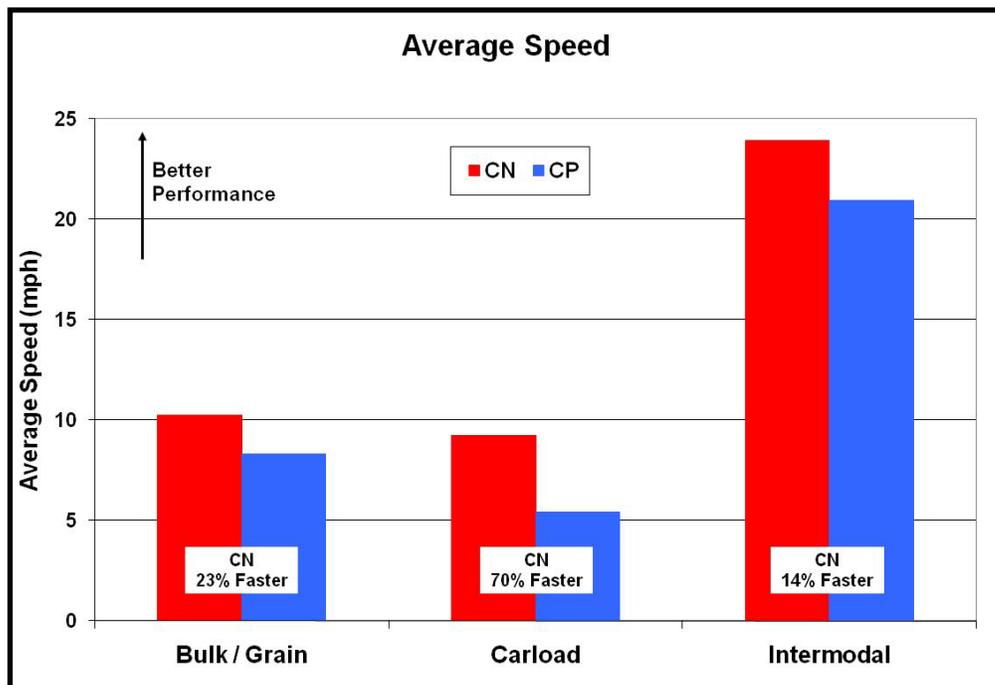
**CN aims at improving its forecasting process by exchanging more information with its customers about traffic expectations and by sharing market intelligence on supply chain dynamics.**

e. CN Network Performance – A Leader in the Industry

In its transit time and car order fulfillment report, QGI analyzed transit times in terms of duration in relation to distances, in other words, speed performance – this is the usual reference in the industry. The report also analyzed car order fulfillment by CN and CP.

Figure 4 below compares CN's and CP's respective network speeds for bulk products, carload and intermodal traffic. QGI's analysis clearly established CN's superior performance during the review period, with a CN speed advantage of 14%, 23% and 70% in intermodal, bulk and carload business segments, respectively.

**Figure 4 – CN and CP Respective Performance – Speed**



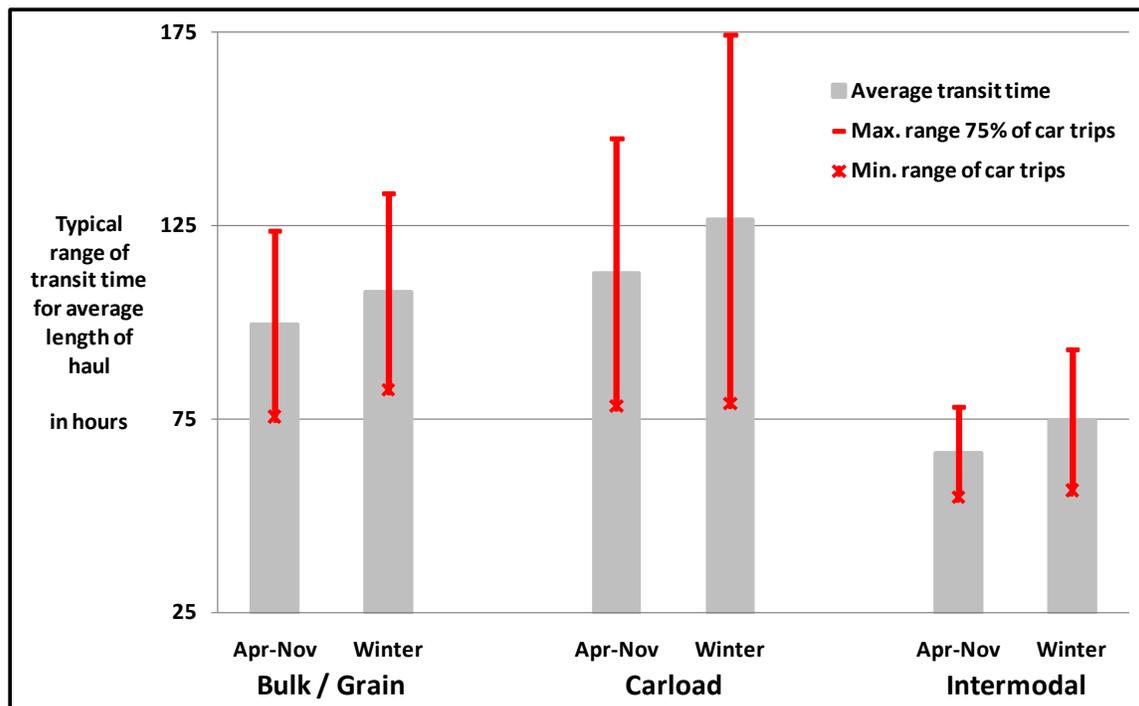
Source: Calculated from QGI's *Analysis of Railway Fulfillment of Shipper Demand and Transit Times* Report

QGI's analysis also established that the consistency of CN's transit time was better than CP's, with an advantage of almost 20% in the bulk and grain business, for instance. Railways' performance is obviously affected by a number of factors given the complexity of rail-based supply chains. One key factor is winter.

Difficult winter weather conditions can affect railway operation performance across several dimensions. Cold temperatures inhibit the ability to qualify the air brake system, which results in the need to run shorter trains. This can result in traffic being left behind at a terminal, which not only increases transit time for the cars directly affected, but also can cause congestion and related delays to other traffic at that location. Snow conditions on line or at a traffic processing yard can also result in congestion and delay. Equipment reliability issues occasioned by cold temperatures can affect locomotive availability. Air brake and wheel issues become more prevalent in winter and can result in cars being set out on line, further decreasing throughput capacity. Finally, the reduced network velocity brought about by the compounding effects of all of these challenges results in increased demand for locomotives and crews. The net effect is that affected traffic will not move according to plan, and transit times and variability will both increase.

CN continues to mitigate these impacts through a number of means such as: deployment of distributed power and air repeater cars (minimizes train line air problems); increased air brake testing and wheel condition management (minimizes en route car failures); increased rail flaw detection testing; ongoing investments in basic plant renewal, locomotive and car fleets; extensive and industry-leading wayside detection network (reduces the possibility of high wheel/rail impacts, especially at cold temperatures); and a variety of winter readiness preparations. However, as can be seen in Figure 5 below showing CN's transit times, winter does have a measurable impact, especially for the carload merchandise traffic which requires the highest degree of handling through yards and between trains.

**Figure 5 – CN Performance – Effect of Winter on Consistency by Commodity Group**



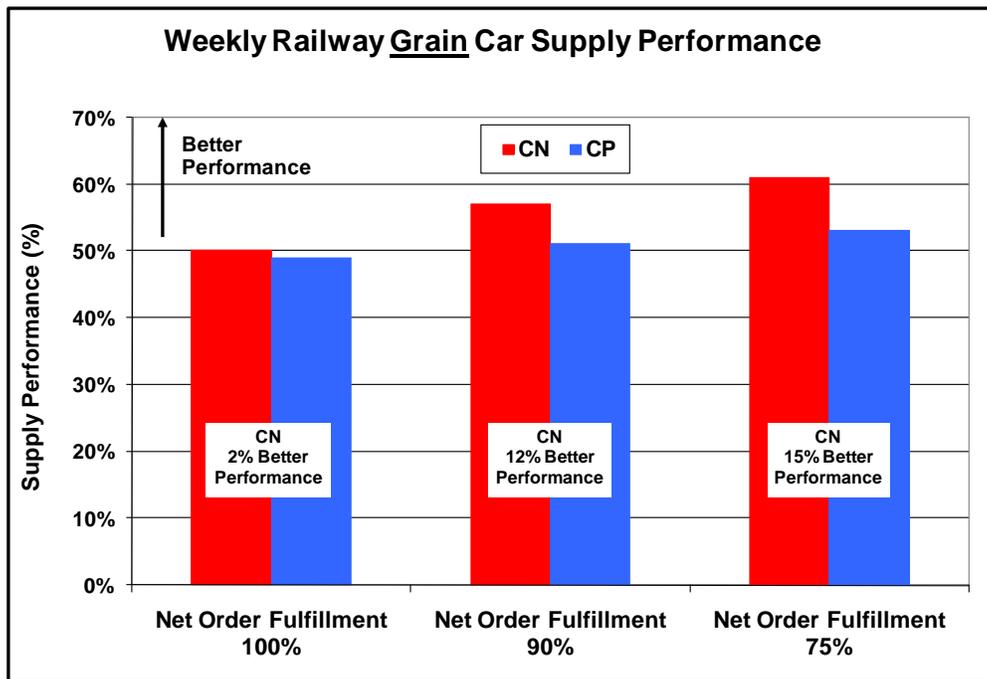
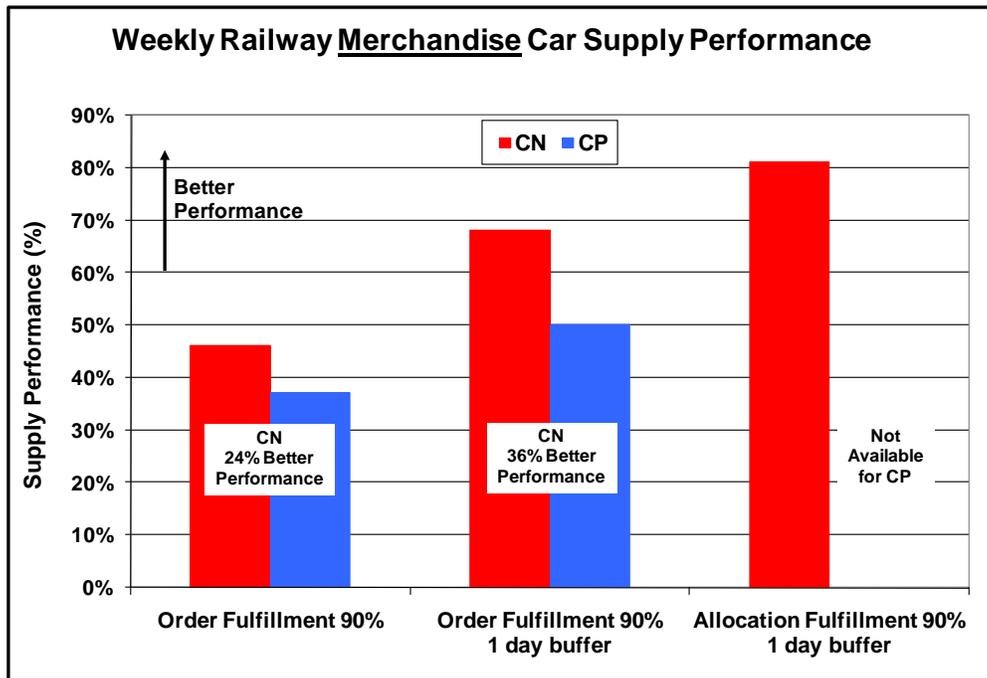
Source: Based on Data Transmitted to QGI by CN

QGI's analysis of transit time did not go beyond CN and CP. However, using public information on train speed and dwell time in yards that is made available by all railways to the Association of American Railroads (AAR), CN has estimated the extent of its network velocity advantage compared to the rest of the industry. Indeed, CN's network velocity is about 25% above the average of the top US railways. This is based on data from January to the first week of April 2010<sup>2</sup> and confirms CN's leading speed and transit performance.

QGI's analysis of car order fulfillment, illustrated in Figure 6 below, established that CN's performance was better than CP for merchandise and in line with CP for grain, where the improvement needed is acknowledged by CN. Indeed, we have taken clear note of the situation identified in respect of grain and have implemented a new Grain Service Plan which is further discussed below.

<sup>2</sup> The data for CN has been adjusted to conform to AAR's business rules.

**Figure 6 – CN and CP Respective Performance – Car Supply**



Source: QGI's *Analysis of Railway Fulfillment of Shipper Demand and Transit Times* Report

In contrast to the assessment of speed, there are no data available to compare CN's performance on car supply with the rest of the industry. However, the numerous changes that have been or are being implemented in its "First Mile - Last Mile" activities clearly demonstrate that CN continues in its drive to achieve further enhancements and position itself favourably in the rail industry.

CN has made a high-level comparison of its approach to car management compared to that of other railways. CN is indeed the only railway, as far as we know, that provides a car order guarantee with penalties if CN fails to deliver. CN is also the only carrier, at this point, that measures success by the specific day of the week. Most carriers are on a seven-day rolling system for order entry, while CN has a fixed cut-off date for orders in the following week, but this is being changed as part of the improvements that CN is planning in its Guaranteed Car Order system. All of these characteristics confirm CN is well positioned in terms of order fulfillment, not only in Canada, but also in North America.

## 2.2. **Opinion and Survey-Based Reports**

*Survey of Shippers (NRG Research Group)*

*Survey of Other Stakeholders (NRG Research Group)*

*Analysis of Operating Practices (QGI Consulting)*

The goal of the NRG surveys was to gather opinions and perceptions on railway service and the performance of the rail-based logistics chain in Canada, and to seek potential solutions to the issues identified. The objective of the QGI analysis of rail operating practices was to provide a description of the rail-based logistics system and the operating practices of the participants, to interview key stakeholders and to propose potential solutions to the problems identified.

As these reports identify and deal with similar issues, they are grouped and the issues and recommendations arising are addressed together.

### a. Issues and Recommendations Identified in the Reports

Customers and other stakeholders indicated that CN needs to better communicate, implement customer-focused measurements, rethink its customer service organization and processes, and bring more balanced accountability in order to improve in four main areas of concern:

- The "First Mile - Last Mile" operational interface, where customers are not notified when their switching windows are changed or when CN faces a disruption and cannot provide service as promised. Most of the shippers' dissatisfaction was raised in relation to the on-time delivery and pick-up of cars locally and to the operating interface between CN and the customer.
- The Estimated Time of Arrival (ETA's), where the accuracy is not always at the precision level that customers would expect.

- The empty car supply process, where cars do not always show up in the quantity or at the time needed.
- The demurrage rules and billing accuracy, where customers feel some of the rules are inappropriate or the inaccuracy of their application leads to improper billing.

b. Survey Reports – CN Concerns

CN has carefully examined the survey reports produced by NRG. The reports raise a number of issues regarding the satisfaction of shippers with respect to CN's service. CN has taken note of the issues and is implementing a number of lasting changes that are designed to address them.

However, like all opinion surveys, the results of NRG's work have to be interpreted carefully. CN has commissioned the Gandalf Group to assess the methodology and findings of these surveys. According to that assessment, copy attached as Appendix I, the conclusions reached by NRG potentially exaggerate significantly the level of shipper dissatisfaction towards CN and have to be taken with much more caution than the fact-based QGI analyses.

c. CN's Actions to Date and Actions Proposed to Address Identified Issues

CN is making a number of changes with a view to address the issues identified in the reports. The action taken for each issue is described in turn.

i) The "First Mile - Last Mile" Operational Interface

CN recognizes that these specific customer touch points require improvement. To this effect, in order to ensure that changes to the local switching plan are properly communicated, CN implemented in December 2009 a Local Service Notification process, where customers will receive a minimum notification of five days in advance of any changes to their local service switching window. Attached as Appendix II is an electronic communication sent to all CN customers in October 2009 providing details of the changes being implemented concerning advance notification of local service change and other improvements in a number of other areas discussed below.

In order to further improve this element, CN is currently developing a Local Switching Performance scorecard that will measure how well switching performance conforms to the switching window as planned. Once in place around the end of the third quarter of this year, this performance measurement will gradually be made available online to all our customers.

The Local Service Notification process and the Local Switching Performance scorecard represent a major advancement in CN's interface with customers. They will modify the manner in which CN communicates and interacts with customers at the local level for the future.

## ii) Estimated Time of Arrival

ETA's are currently available to customers through CN's website. The issue raised in the NRG Shipper Survey is about the level of precision of the ETA's. To improve on this element, CN is currently developing a new tool that will analyze the precision of the ETA's. The goal is to communicate to customers the level of precision of our ETA's on their specific traffic and help them understand the reasons behind the variations in order to improve on an ongoing basis. This will be made available to all our customers by the end of the third quarter of 2010.

## iii) Empty Car Supply Process

CN has already recognized the need to revise some of its key car ordering processes and has taken action to increase flexibility and improve performance on the timely delivery of empty cars.

In respect of merchandise traffic, CN has consulted extensively with its customers and is now revising the Guaranteed Car Order process. A number of changes are being implemented or are planned with the objective of improving performance and reducing some of the administrative requirements. Appendix III provides a more detailed description of these changes. Following is a summary of the changes implemented and planned:

- In December 2009, CN changed the process to allow customers to order additional cars for the current week when we did not deliver all the cars that were guaranteed the prior week.
- In 2010, CN will implement process changes to improve on delivery performance of cars on the desired loading time and day. Customers will also be allowed to cancel orders up to 72 hours before the date cars have been ordered for. Finally, an online scorecard on car supply performance to each customer will be introduced in the third quarter of this year.
- Finally, early in 2011, CN will introduce a seven-day rolling cut-off for order input. This will allow customers to interact much more dynamically with CN and communicate changes in production and delivery schedules on an ongoing basis. The goal is to help our customers meet more of their own customers' orders, so that we can grow together.

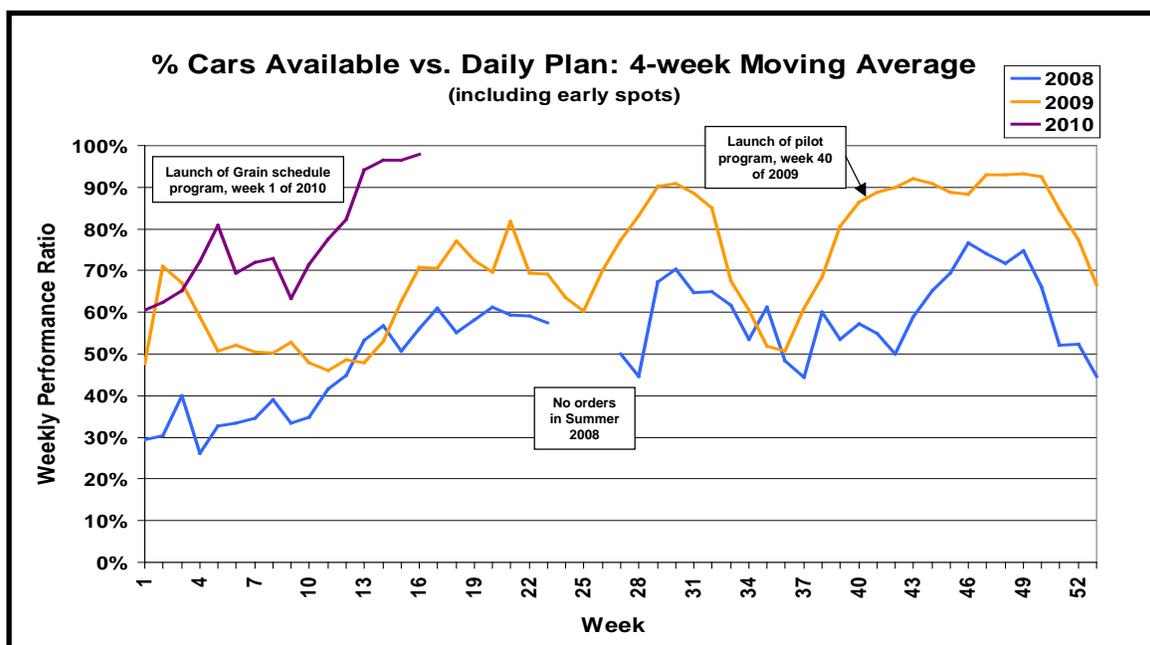
All of these changes represent major and permanent improvements that will significantly enhance the flexibility of the car order process for our customers. This will require continued adjustment and fine-tuning through further interaction with the specific users, but CN is working collaboratively with customers to ensure the new tools and processes meet their intended goal of improved customer service.

In respect of Western Canadian grain traffic, CN formally introduced a new program in January 2010 called the 'Scheduled Western Canada Grain Plan'. Under this plan, Edmonton, Saskatoon and Winnipeg yards become key empty grain car distribution hubs from where scheduled day of week service to the various loading sites is offered. Under this more disciplined approach to grain service, fully 95% of the weekly grain traffic is now

scheduled. Appendix IV provides a more detailed description of the service improvements made by CN to the Western Canadian Grain Program.

As shown in Figure 7, this new program has already improved CN's grain car supply performance from 30 to 40% in early 2008 to more than 80% of the cars being placed on the specific day of the week as per plan during the first few months of 2010. Having a pre-established day of the week for service allows customers to better plan their own business and activities; it also facilitates communications. Transit times, cycles and reliability improved as well, increasing the flow of empty cars and the capacity of the fleet for grain customers. Feedback in the Prairies has been extremely encouraging. For example, Viterra and James Richardson International have provided very positive feedback with the changes and the Canadian Wheat Board also confirmed that the new process is greatly facilitating the planning of their logistics.

**Figure 7 – CN Grain Car Supply Performance Improvement**



Source: CN Detailed Event-Based Analysis

CN's new scheduled grain plan represents a major advance in our service to the Western Canadian grain system. CN's goal in rolling out the new grain plan is to grow its business in this segment and help improve the supply chain for Canadian grain in world markets.

Building on the success of the Scheduled Western Canada Grain Plan, CN has also introduced a Scheduled Potash Plan built on the same principles. This new scheduled service was designed with input from potash customers. Like grain, each potash mine now has a set day and time for empty car placement, which allows them to better plan their own operation. Potash movements on CN's network reached record levels in Q1 2010 allowing CN customers to increase their participation in the North American market.

iv) Demurrage Rules and Billing Accuracy

As a result of past complaints and continuing dialogue with customers, CN recognized the need to review and change some of its demurrage rules to improve fairness and accountability in its application and accuracy in the billing process. A specific complaint filed with the Canadian Transportation Agency by a number of our largest forest products customers in May of 2009 was successfully resolved through extensive discussions, thus avoiding the need for regulatory intervention. Additional changes developed collaboratively through this process were subsequently rolled out to our entire customer base. Feedback from forest product customers and other shippers has been broadly positive since the implementation of these changes. Appendix II referred to earlier in the context of notification of local service change also provides details on the improvement made to CN's demurrage program.

Following is a summary of the changes implemented:

- In July 2008, CN changed the demurrage rules at the origin to account for early and late delivery of cars, allowing customers to receive credits if CN "bunches" car deliveries.
- In August 2009, CN changed the rules to add an additional credit when cars are placed at the customer location late and outside the planned switching window.
- In October 2009, CN changed the rules applicable to grain demurrage to be aligned with the other merchandise commodity groups. With this change, CN was able to conclude much needed operational agreements with the major grain terminals to facilitate seven-day/week unloading. These breakthrough agreements hold the potential to significantly increase the throughput and reliability of the critical Vancouver gateway.
- In November 2009, rules at destination were also changed to ensure that the demurrage clock is triggered only when the cars arrive at the actual yard servicing the customer.

With these significant demurrage and billing improvements, CN has fundamentally changed its systems with a view to make it easier for customers to do business with CN.

Finally, to ensure these changes are applied with discipline and consistency, an internal website was created to highlight daily reporting discrepancies that are reviewed each morning by management personnel considered within CN as "reporting experts". The website also centralizes the appropriate business rules and examples of proper reporting techniques as a guide to field reporting clerks that can be accessed 24 hours per day, seven days per week. Based on extensive customer feedback, we firmly believe that past issues raised concerning demurrage have been adequately addressed by CN.

v) Customer Service Organization, Customer Engagement and Issue Resolution

According to the Consultants' reports, shippers view CN as being an efficient railway from a transit time and car supply perspective. They indicated, however, that CN must focus more attention on its customers and their service needs. Specifically, they asked that CN review its current processes for dealing with customer service complaints to ensure a more efficient resolution of service issues.

CN takes these comments seriously. In this regard, we have recently announced and implemented a totally new Marketing and Sales organization structure, designed to have both our Account Managers and Market Managers reach out and get closer to our customers in the field.

And CN is not stopping there. Our local Operating Officers have also been encouraged to team up with our Marketing Representatives to meet locally with our customers on a regular basis. We believe this team approach will achieve two important goals:

- Better understand our customers' needs especially around the "First-Mile - Last-Mile" activities; and,
- Further grow our participation in our customers' business.

Teaming up with our customers is also part of our commitment to improved service. CN is making every effort to establish meaningful and lasting dialogue across the business. In a proactive move designed to foster such dialogue, we are holding a Customer Forum on June 1, 2010. Customers from all business segments will have the opportunity to discuss CN's direction and share their views about what is needed going forward. Such customer events are expected to take place on a regular basis.

In the coming months, CN will undertake an in-depth evaluation of its customer service function. The assessment will be structured to produce concrete results to improve our customer service activities. Included in the Review will be benchmarking against other world class customer service organizations, a review of our processes to properly support the customer representative and implementation of necessary training and staff levels required to transition to this new vision. The goal is to have informed, empowered service personnel, with clearly defined escalation processes in the event that he or she cannot resolve the customer's concern. CN proposes to report back to the Panel in September on the proposed changes we intend to make in our customer service function.

On the key point of issue resolution, CN is convinced that meaningful discussion between parties can result in the resolution of most issues as it is the parties who can best design a solution that meets their respective needs. As was mentioned above, CN and major forest product customers were able to resolve a complaint concerning CN's demurrage program through a collaborative framework of discussions and without the need for heavy regulatory intervention.

CN understands that issues will always remain, but it encourages its customers to follow a commercial dispute resolution process. The CDR process reiterated by CN provides that the customer can trigger the process at any time where the internal escalation fails to satisfactorily resolve the issue to its satisfaction. The process involves mediation as an initial step followed, in the event the matter is not resolved, by either commercial arbitration or recourse to the Canadian Transportation Agency, at the shipper's option.

Attached at Appendix V is an electronic communication sent to all CN customers explaining CN's dispute resolution process and inviting them to use the process to address service issues. Also included in Appendix V is a presentation on how the process works. CN makes this dispute resolution process available to any customer who wishes to sign the agreement to resolve issues relating to services rendered in Canada.

CN has used mediation services extensively, either the Agency's mediation services or commercial mediation services, for a variety of matters and can attest to its effectiveness. For this reason, CN remains committed to a CDR process that involves mediation and will continue to make it available to its customers.

**Mediation is recommended by CN as a preferred first step specifically because it requires both parties to engage in meaningful discussion at the appropriate level prior to pursuing litigation. Mediation encourages more detailed understanding of each party's position, lasting commercial solutions and positive relationships with customers. Solutions crafted by the parties are always superior to those imposed by third parties who are inevitably less familiar with the parties' respective needs. Mediation is fast, inexpensive and, being confidential, has no adverse consequence in the event the parties fail to resolve the matter.**

### **2.3. Service Issues in Regulated Industries other than Canadian Rail Freight Industry (CPCS Transcom Limited)**

This study was commissioned by Transport Canada to describe how service complaints are addressed in other modes of transportation, in regulated industries and in the US rail system. The study was also to assess whether these processes and remedies could be made applicable to rail freight services in Canada.

The main conclusion of this report is that the level of service obligations imposed on railways by the *Canada Transportation Act* are already more strict than those that apply to federal air, water and pipeline carriers, when they exist at all. It also concludes that the remedies available to address service issues are much better for rail shippers than those using other modes of transportation or users of other regulated industries.

Of particular importance, CPCS recognizes the importance of mediation and also encourages the railways and shippers to resume discussions towards adopting an effective Commercial Dispute Resolution (CDR) process. The report also encourages policy makers to conduct further research and consult with stakeholders about the United States' informal complaints process; ways of addressing complaints related to confidential contracts; and exemptions of many commodities from regulation.

CN asked Inter *VISTAS* Consulting Inc. (Inter *VISTAS*) to review the CPCS study and the QGI study relating to the fulfillment of shipper demand and transit times and to provide commentary on the linkages between them. In a submission being filed separately, Inter *VISTAS* concluded that the quantitative analysis of railway services performed by QGI disclosed no systemic or structural problems in the rail industry and that no additional regulatory action is warranted.

**CN is in agreement with the key findings and recommendations of the CPCS report. The existing regulatory remedies are more extensive and robust than in any other Canadian regulated industries reviewed in the report. The quantitative analyses by QGI have identified no structural or systemic issue that would indicate the need for new or additional regulation. CN believes such regulation is not necessary and could actually create unintended consequences, in terms of reduced efficiency, as has often been the case in the past. Heavy regulations undermine market-based incentives to innovate and adjust along the whole supply chain. CN urges the Panel to focus its recommendations on commercial supply chain solutions and to stay the course with Canada's successful policy of de-regulation in the rail industry.**

#### 2.4. Summary of CN's Recommended Solutions

CN supports market-based solutions to the issues highlighted by the Consultants' Reports and the Rail Freight Service Review process. Railways have strong commercial incentives to improve service and find solutions to solve problems with their customers. So do the other key participants in the logistics supply chain. Failure to do so can only result in lost business opportunities and market share erosion for all parties involved.

Lasting solutions must be developed with all participants in the logistics supply chain, as the interconnectedness of the stakeholders does not support optimization by only one participant. Without coordinated improvements to all aspects of the service delivery, enhancements in one area can quickly be lost. Volatility experienced due to the actions of another logistics supply chain participant can neutralize enhancements taking place elsewhere in the chain.

Following is a table providing a high level summary of the issues identified, the actions taken by CN or in the process of being implemented and the reasons for the enduring impact of these actions.

**Table 3 – Summary of CN Service Improvement Initiatives**

Service Improvements Outlined by Consultants	CN Actions Implemented or Underway	Enduring Impact
Empty Car Supply	<ul style="list-style-type: none"> <li>• Changing CN's Guaranteed Car Order Program to improve order fulfillment performance and to allow customers more ordering flexibility</li> <li>• Implemented car order shortfall reorder process</li> <li>• Implemented transformational Western Canada scheduled grain plan</li> <li>• Synchronizing potash and other bulk to a scheduled service plan</li> </ul>	<ul style="list-style-type: none"> <li>• Program changes done in consultation with customer advisory board, ongoing dialogue</li> <li>• New order fulfillment scorecard for customers to be available on the web: transparent new measures developed by CN jointly with customers to review success and to improve on an ongoing basis</li> </ul>
"First Mile - Last Mile" Operational Interface	<ul style="list-style-type: none"> <li>• Improving switch window performance and ETA accuracy information</li> <li>• Implemented Service change notification process</li> <li>• Setting notification to customers in case of disruptions to their planned service</li> </ul>	<ul style="list-style-type: none"> <li>• New metrics to be designed and implemented in consultation with customer advisory board</li> <li>• New switch window performance and ETA accuracy reports will be available on the web: transparent new measures developed by CN jointly with customers to review success and improve continually</li> </ul>
Demurrage and Billing	<ul style="list-style-type: none"> <li>• Implemented comprehensive demurrage rules changes addressing bunching, placement outside the switch window and serving yard for cars at destination</li> <li>• Audits and website developed to improve reporting and billing accuracy</li> </ul>	<ul style="list-style-type: none"> <li>• CN proposes mediation and CDR in addition to existing recourses in the <i>Canada Transportation Act</i> to solve future issues</li> <li>• Broad groups of customers have already expressed satisfaction with CN's new demurrage tariffs and rules</li> </ul>
Customer Service and Issues Resolution	<ul style="list-style-type: none"> <li>• Undertaking a complete review of CN customer service activities in the next few months, including process re-engineering, standardization, and training</li> <li>• Developing a new and more robust process around issues escalation</li> <li>• Revamping the CN Satisfaction Survey</li> </ul>	<ul style="list-style-type: none"> <li>• Marketing &amp; Sales organizational changes to enhance customer facing activities and deploy senior people closer to customers</li> <li>• Mediation/CDR process to expedite resolution, new CN measures can be used by both parties to support these discussions</li> <li>• Transparent measures shared with customers to pinpoint issues tied into the "dashboard" of CN's eBusiness tools</li> </ul>

### 3. Balanced Accountability – Role of Other Logistics Supply Chain Participants

To quote QGI, "... Canada's rail freight logistics system is a joint responsibility of all supply chain partners. This system requires effective collaboration in the planning and operations activities of supply chain participants including railways, shippers, receivers, shipping lines and their intermodal and bulk shipping partners."<sup>3</sup>

It is imperative to properly understand this statement by QGI in discussing the issue of accountability. The performance of each participant in the logistics supply chain – including the customers themselves - affects the performance of the other participants and, ultimately, the overall level of service provided by all.

One of the suggestions made by survey respondents and presented in the Stakeholder Survey Project<sup>4</sup> is to attach performance penalties that single out the railways when gaps in performance occur. With the QGI statement quoted above in mind, CN sees three fundamental flaws with this penalty-based approach.

#### **Who failed whom...?**

A performance penalty system immediately implies a need to identify the party, the failure and the underlying cause. It would not only be extremely difficult, but also inappropriate to assign responsibility for the failure to one participant without looking at the performance of all the other participants in the chain to determine the root cause of the failure.

As in the grain exports example discussed in more detail below, heavy rain in Vancouver in November 2009 prevented grain from being loaded to vessels, thus causing a backlog in loaded grain cars waiting to be unloaded. This delay in turn reduced empty cars available to be placed for loading, back in the Prairie elevator network. When viewed in isolation, the initial perception drawn by Prairie shippers may have been that CN was "at fault" for not placing empty cars on the day committed. In fact, CN's apparent failure was caused by the inability of the waterfront terminals to unload rail cars upon presentation, which in turn was caused either by the rain or by the lack of a ship loading system more resistant to weather conditions in Vancouver.

#### **Penalties for one – penalties for all...?**

If a balanced approach is to be taken, then penalties for failure must be applied to all logistics supply chain participants: penalty when a ship is late or fails inspection, penalty when a terminal operator does not meet unload requirements or fails to unload seven days a week, penalty when a connecting carrier does not return empty cars in interchange, and so on. The commercial and legal challenges in establishing such a system would be onerous, if not impossible to overcome. And that is assuming all parties would want to participate, which, in CN's experience, is decidedly not the case.

<sup>3</sup> "Analysis of Railway Fulfillment of Shipper Demand and Transit Times" Report prepared by QGI Consulting, March 2010, p. 5.

<sup>4</sup> "Survey of Other Stakeholders – Terminal Operators, Ports and Shipping Lines" Report prepared by NRG Research Group, January 18, 2010

## Heavy administration, burdensome and unproductive arguments...?

Assuming the dispute can be resolved, the penalty clauses must then be administered. CN's experience is that tracking, reconciling and paying penalties can quickly turn into an administrative burden for both CN and its customers. Opportunities and solutions may be overlooked, as each group is forced to put staff and energies into rear-facing administration and reconciliation. Rail-based supply chains are too diverse, complex and dynamic to lend themselves to burdensome administrative oversight. The unavoidable lag in obtaining, assessing and deciding upon complex event-driven information would not be helpful to solve the real-world problems faced in real time by shippers and logistics participants on an ongoing basis. If the regulatory authorities decided to go down that route, it is clear to CN this would be at the expense of the efficiency and continuous improvement that have been a forte in the rail-based supply chains operating in Canada.

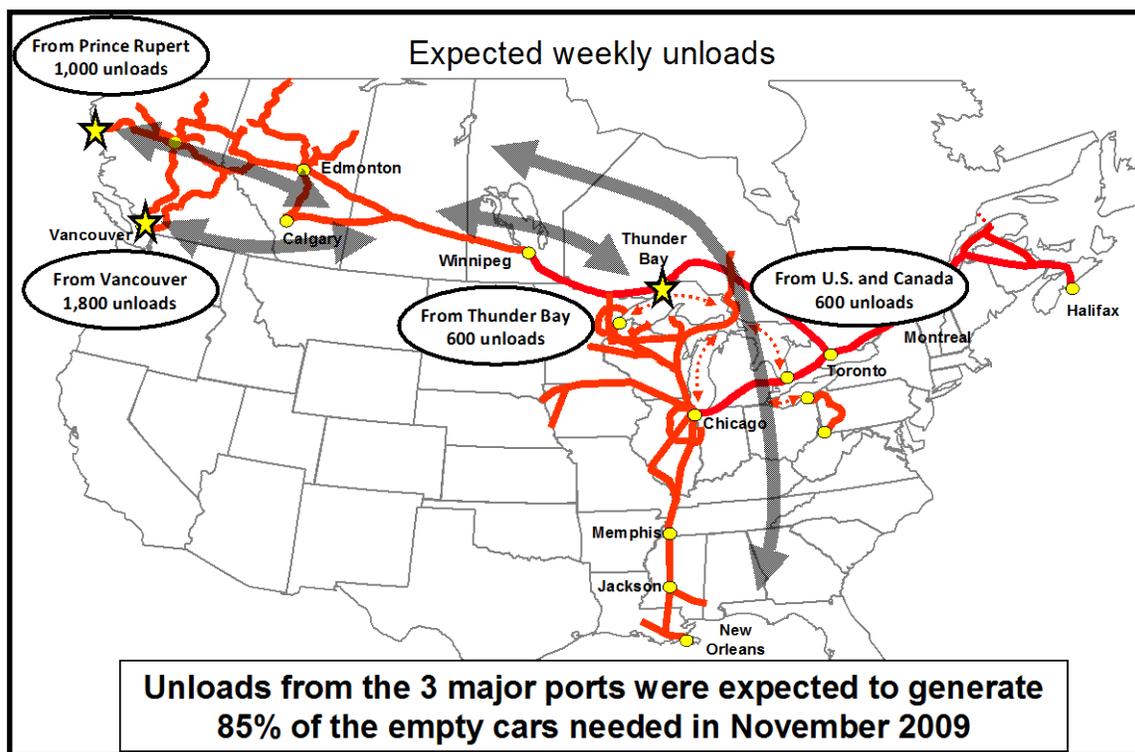
To better illustrate the interconnectedness of the logistics supply chain and the need for balanced accountability, the following examples show how volatility in performance by other participants can have a significant impact on rail service and cost.

### a. Grain Exports

The West Coast is known in the fall/winter period to experience heavy periods of rain. Under these conditions, terminals are not in a position to load grain to vessel. In addition to delaying vessel departure, this restriction forces railways to hold loaded rail cars as the terminal elevators reach capacity. Loaded cars back up, at both the destination yard and in yards and sidings on CN's main line. This "stop" to the conveyor belt can cause significant and crippling yard and line congestion for other traffic as well as unproductive deadheading of locomotives and crews. More directly, it chokes off the supply of empty rail cars available for loading back in the Prairies. The delays at the unloading location are not visible from the loading end and empty car shortages are often unfairly perceived to be a failure on the part of CN.

When the transportation conveyor belt operates at a planned, reasonably constant velocity, each stakeholder benefits from the lowest cost, highest service operation of the system. When disruptions occur in the velocity of the flow, the system's perishable capacity cannot be easily recovered. When grain terminals do not unload rail cars, railways do not have the number of cars needed back in the country and origination elevators lose productive days loading cars. When service resumes, it takes days for normal, productive flows to be re-established. As the backlogs of loaded cars are reduced, a resulting high flow of empties must be productively placed and used again. This can be pictured as a wave sloshing up against both ends of the logistics supply chain – it can take a long time to re-establish the equilibrium required for high service, low cost operation.

Figure 8 below shows that last November the car unloadings from the major Canadian ports were expected to generate on a weekly basis 85% of the 4,000 empty cars needed each week in the country. Unfortunately, rain conditions in Vancouver during the month of November reduced the ability to unload grain cars for an extended period of time. This resulted in additional dwell time to cars being delivered to this port.

**Figure 8 – Expected Source of Empty Cars for Grain Loading in November 2009**

Source: CN Supply Chain Analysis

This loss of capacity within the grain system has a direct impact on both customers and CN. On the CN system, 700 fewer cars were unloaded in Vancouver due to rain in the month of November. This affected our ability to place empty cars back at the country elevators in the following week as per our published grain plan. This in turn caused frustration for our customers, as empty cars were not available on the scheduled day to load and with elevator loading crews not being utilized as planned. Further, this variability also cascaded to the loaded transit time movement, as cars that are not being loaded according to plan often can not be picked up according to plan and moved back to port. It is critical for the Panel to realize that the rain delays in Vancouver resulting in setbacks in empty car placements cannot be legitimately counted as a "CN failure".

#### b. Coal Exports

Terminals unloading coal trains face volatility in their operation. Delays can be caused by high winds, coal frozen in the cars or in the unloading chutes, mechanical breakdowns, labour outages, vessel delays, etc.

As illustration, one of the coal terminals in Vancouver took, on average, an additional 12 hours to unload each coal train CN delivered from November 2009 to mid January 2010. This had an impact on the number of complete trips each train could achieve during a month. Under normal circumstances, this traffic takes four days for a complete cycle. A 12-hour terminal unloading delay represents a loss of 12.5% of available rail carrying capacity.

Such a loss in velocity reduces the number of trains CN can deliver to port in the month. In a regular month, this results in a loss of 5 trains for our customers. This is a significant loss of carrying capacity for the coal customers who must also forego the associated revenue estimated at approximately \$7.5 Million for the month. In addition, the customer may be faced with supporting vessel demurrage charges or penalties failing to meet contractual obligations. In this example, all of this happens because the waterfront terminal is facing a shortfall, not because railway service is at fault.

This is a situation where transparency is particularly important throughout the entire logistics supply chain. Railways, in these circumstances, cannot be solely held accountable for the shortfall in coal trains moved. The pursuit of performance for each supply chain participant is necessary to achieve the proper balance and improve the efficiency and delivery of the entire logistics supply chain.

CN believes the ongoing exchange of information between railways, coal producers, terminals and ocean carriers is the best way to secure reliable and efficient supply chains for coal traffic as well as other traffic. A narrow penalty regime singling out railways or additional regulatory measures cannot produce that result.

c. Intermodal Container Traffic

Shipping lines, ports and railways must all contend with vessels that do not arrive on schedule. According to the *Survey of Other Stakeholders* conducted by NRG Consulting, shipping lines indicated that their biggest concern within the logistics supply chain was not railway delivery performance but rather weather, which directly impacts vessel schedules<sup>5</sup>. As Table 4 below illustrates, vessel delays are frequent and the data indicates that fully over one-third of the vessels arrived over eight hours late at Port Metro Vancouver in the second half of 2009.

Late vessels have a significant impact on the overall rail freight logistics system and on all the other stakeholders. In addition, many ships arriving at the same time cause bunching and congestion at the port, which delays handling and creates fluctuations in the flow of business.

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<sup>5</sup> “*Survey of Other Stakeholders – Terminal Operators, Ports and Shipping Lines*” Report prepared by NRG Research Group, January 18, 2010, p.4.

**Table 4 – Container Vessel Delays at Port Metro Vancouver for July 2009 to December 2009**

Month	Vessel Visits (Scheduled and Unscheduled)	Number of Vessels Delayed (> 8 hours)	% Delayed Arrivals (> 8 hours)	Average Vessel delay time (hours)
Jul	52	12	23.1%	20.6
Aug	46	16	34.8%	31.5
Sep	42	13	31.0%	27.6
Oct	50	21	42.0%	32.2
Nov	43	20	46.5%	22.3
Dec	46	16	34.8%	28.8
<b>Total</b>	<b>279</b>	<b>98</b>	<b>35.1%</b>	<b>27.1</b>

Source: Pacific Gateway Portal website

International business involves import and export flows. Import containers are offloaded from vessels to rail cars or to ground and moved inland to final destination. Once at destination, the rail cars used to move the import containers are required to bring back the export containers that are pre-booked for the next vessel departure. Holding empty rail cars at the ports waiting for late import containers causes, at the other end of the chain, a shortage of rail cars necessary to pick up export containers. When no additional cars are available, shipping lines do not receive their export traffic as planned and vessels leave without the full load.

This is a normal supply chain at work. Just as shipping lines struggle to achieve a 65% on-time performance, railways certainly cannot be expected to be on-time 100% and cover for other participants' shortfall.

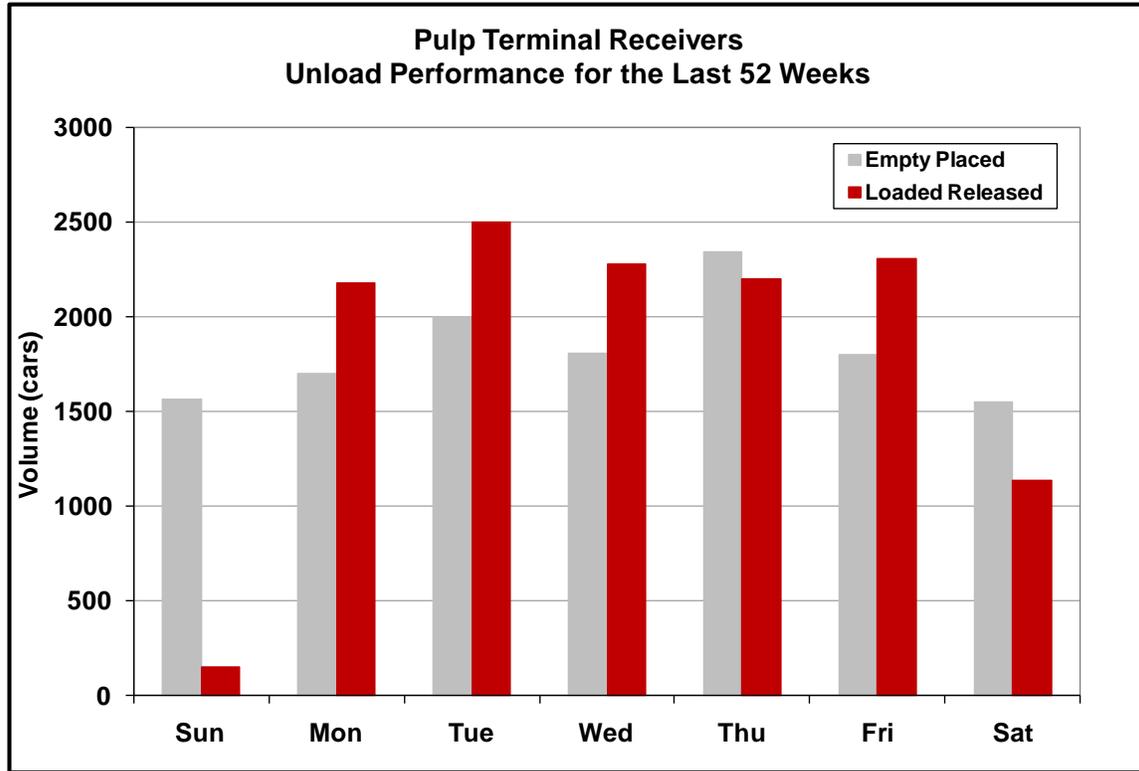
d. The Importance of Seven-Day per Week Operation

Pulp shippers order, load and bill traffic seven days per week. This is required by the nature of the pulp manufacturing process. As a result, empty cars must be available to meet their steady stream of production every day of the week, 365 days/year. Mills have some ability to warehouse product on site, but this storage capacity, in most cases, is very limited. According to the pulp industry, shutting down a pulp mill is very expensive; therefore, supplying empty cars on a seven-day per week basis is critical to the pulp industry.

Unfortunately, many pulp terminal receivers do not unload on a seven-day/week basis. This means that loaded pulp cars arriving on Fridays through Sundays lead to a weekend build-up resulting in rail yard congestion. This build-up is not cleared until well into the following week. In addition to yard congestion, this reduces the optimum capacity of the fleet and translates into shortage of empty cars to pulp shippers. Here again, when viewed in isolation, CN too often appears to be the party at fault for not supplying all the cars expected. In fact, small waterfront terminal operators deciding not to operate on a seven-day basis may be equally at fault.

Figure 9 below illustrates the imbalance resulting from the absence of weekend unloading by pulp terminal receivers.

**Figure 9 – Pulp Terminal Receivers not Unloading on a Seven-Day/Week Basis**



Source: CN SRS Transportation Data

QGI's findings in the *Analysis of Railway Fulfillment of Shipper Demand and Transit Times* Report actually confirm this issue: "For CN, the commodity groups responsible for the majority of delays at these destinations were in the forest products group, building materials and grain products"<sup>6</sup>. QGI's findings indeed confirm that day of week arrival has a significant effect on the time taken for final placement. They found that traffic arriving on Fridays and Saturdays takes a full 23% longer to be placed than traffic arriving on all other days of the week.

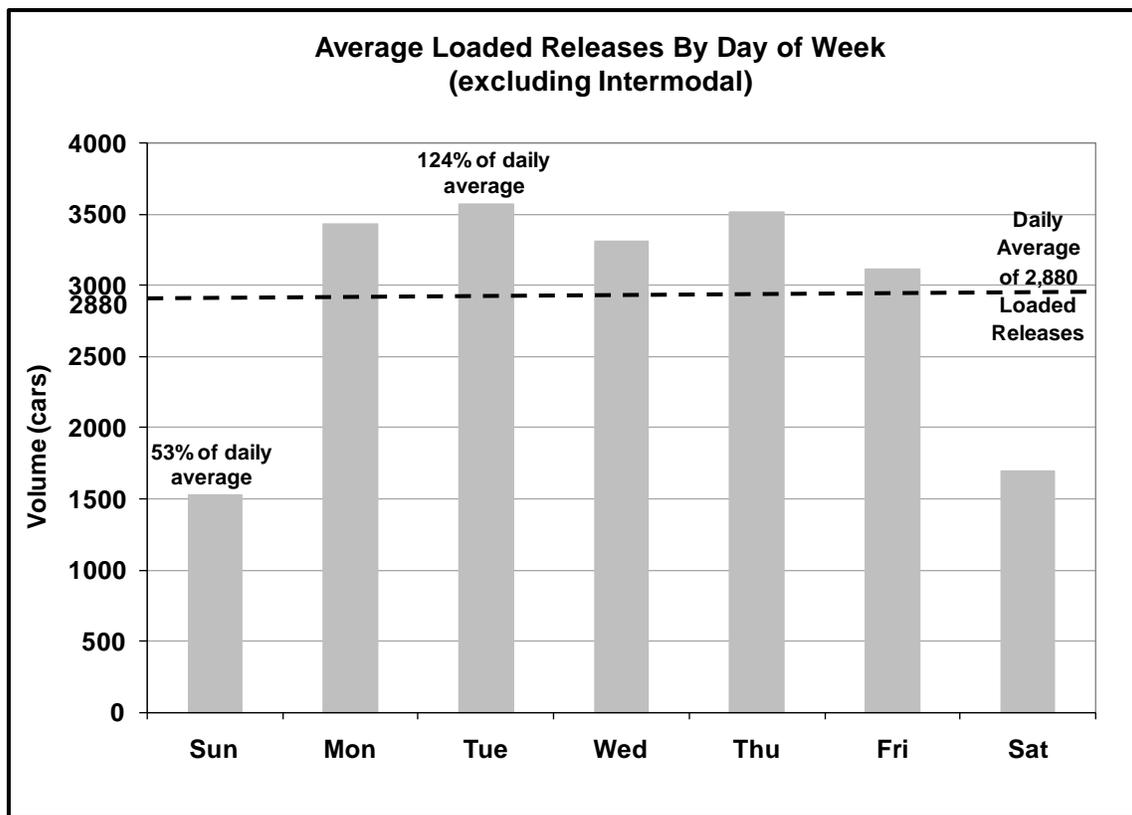
Delays at the unloading end vary depending on the terminals. A two-day average loss in cycle time to Vancouver reduces car loadings by 420 per month, which we estimate translates into \$25 Million in lost sales value to customers (\$300 Million annually).

<sup>6</sup> "Analysis of Railway Fulfillment of Shipper Demand and Transit Times", p. 135.

### The total impact of not operating seven days per week:

The negative impact of five-day operations also occurs at the loading end as many customers only load rail cars from Mondays to Fridays. As illustrated in Figure 10 below, CN experiences a 70% (from 53% to 124%) swing in loading from a Sunday low to a Tuesday high.

**Figure 10 – Customers not Loading Seven Days per Week**



Source: CN SRS Transportation Data

The cumulative effect of many stakeholders not operating on a seven-day/week basis is significant in the transportation logistics system. Spread across a number of shipping and receiving customers, this “stop/start” effect injects significant fluctuations in all aspects of CN’s operation, causing low capacity utilization on some days, and overcapacity situations on others.

When the number of cars released exceeds train capacity, surplus cars must wait for the next train. This increases the car cycles and diminishes the predictability of transit times for all customers. To put this in perspective, a two-day improvement in car cycles in the overall system provides 6,000 more rail cars available for customers to load. If customers and terminal operators are not willing to help themselves with simple measures such as loading/unloading seven days a week, one needs to question the call for regulatory authorities to intervene with new remedies. Once again, the best source of supply chain improvement resides

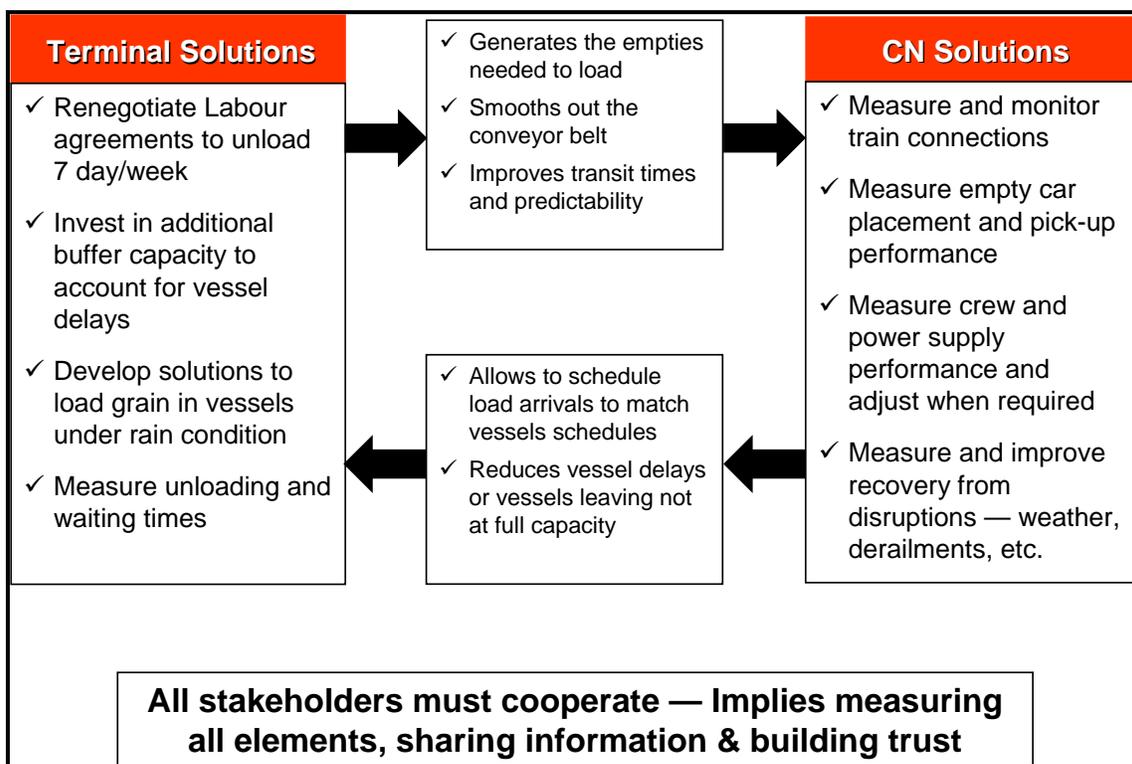
in the ongoing exchange of information between all players striving for improved performance and commercial success.

e. Conclusion from these Examples

As shown in these examples, the interconnectedness between all the players involved in the logistics supply chain is complex. While CN plays a critical role, CN cannot be held accountable for the performance of the supply chain as a whole. The railways alone cannot achieve optimization of the chain. All stakeholders must strive to optimize each of their respective components in the chain.

The diagram in Figure 11 shows some of the improvements that can be achieved at each end. These improvements do not require either new regulations or a cumbersome system of penalties. They should be driven by mutual trust in operators participating in the logistics supply chain based on the discipline embedded in normal commercial incentives.

**Figure 11 - A Framework for a Commercial Supply Chain**



Source: CN Supply Chain Analysis

As mentioned, we believe that the solutions to the issues identified above reside in stakeholder cooperation as opposed to further regulation. If regulation was to be contemplated, any of these logistics supply chain issues could not be regulated in isolation. For example, if railways were required to supply 90% of the empty cars

needed at all times (even assuming this could be possible), then all other participants in the chain would need to be held to the same type and level of obligation – coal, grain and pulp terminals would have to be required to unload during weekends, build sufficient buffer capacity, be equipped to operate under rain conditions, vessels would need to be required to arrive 90% on time as well, and shippers to load product during weekends as a logical first step. Otherwise, any improvement mandated by penalties or regulations in the rail segment of the logistics supply chain would not only be unfair, but it would quickly be eroded by the performance of other participants.

CN asked Oliver Wyman to assess the QGI analyses and provide additional perspective on the conclusions drawn in their reports. In a submission being filed separately, Oliver Wyman suggests that the reports are reasonable and logical but have limited scope. According to Oliver Wyman, the analyses do not evaluate overall supply chain performance, nor do they provide a context for judging Canadian railways' performance vis-à-vis their railway peers in North America and in the rest of the world. Oliver Wyman also states that CN is considered to be a world class leader and innovator in terms of many service metrics.

**CN submits that the true opportunity to improve the logistics supply chain is when all stakeholders get better as a commercial team. CN has been working, and is committed to continue working, with the various stakeholders to improve the end-to-end delivery of freight in Canada. This is what balanced accountability is all about.**

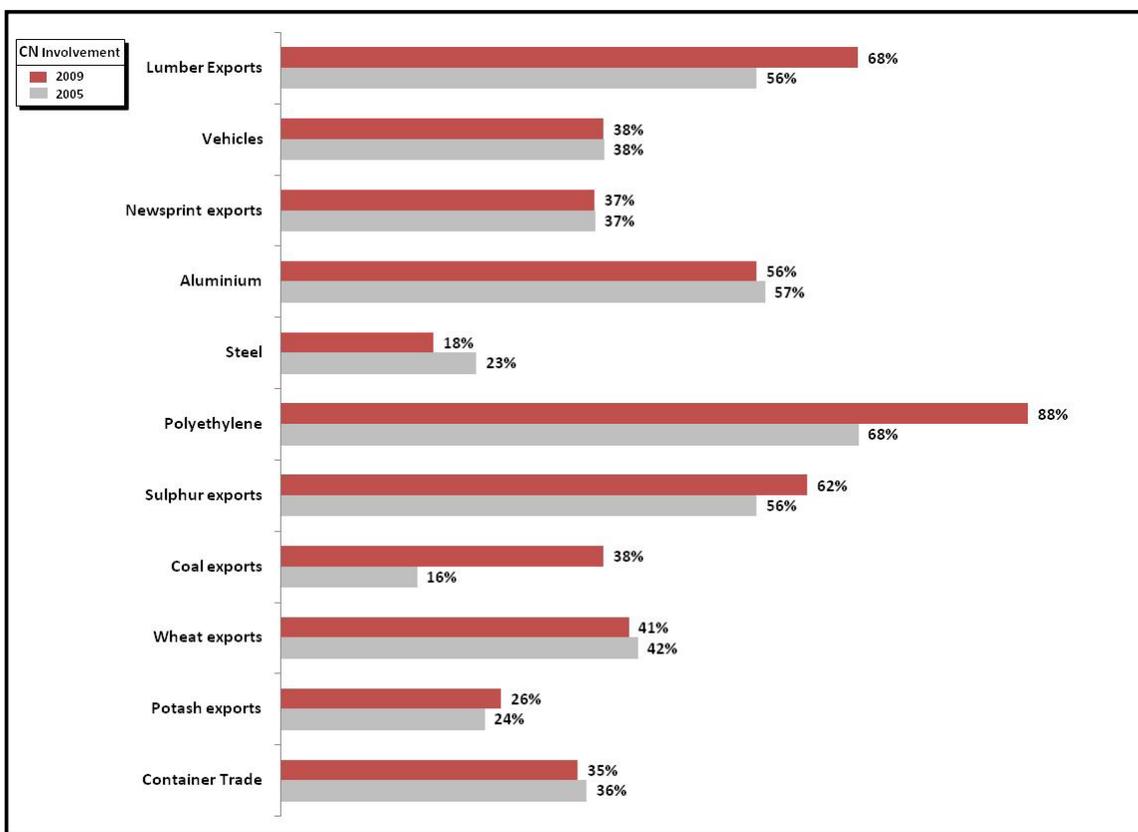
**As stakeholders have the economic and commercial incentives to improve the reliability and capacity in the logistics supply chain to grow their own business, this can only be to the benefit of all participants.**

**4. The Bottom Line**

CN has come a long way in its transportation journey during the last 10 to 15 years. Our footprint has been expanded in a way that offers customers extended reach and single-line service across a unique network in North America. A significant amount of capital has been invested to protect the integrity and enhance the fluidity of our network. Major railroading innovations have been implemented to improve the speed and reliability of our service while carefully tightening the utilization of assets.

The marketplace is certainly making a statement on CN’s performance, as customers across multiple segments of our business have signed up more of their traffic on the railway over the last five years as shown in Figure 12 below. In effect, over this period of time, despite some level of complaints, customers in many key markets, such as lumber exports in the forest products sector, have given a vote of confidence by choosing to use CN more often, not less. There are issues to be addressed as always, but this is a normal, competitive market at work.

**Figure 12 – CN Playing a Major Role Across the Canadian Economy**



Source: Mostly Statistics Canada and CN Traffic Data

The progress has been neither perfect nor uniform . CN has heard the complaints of customers about the appropriateness of its customer interface and the poor quality of some “First Mile – Last Mile” activities. The complaints have been heard and changes have been made, from notification of service change to demurrage rules to fundamental innovation such as the new Scheduled Grain Service. These changes are ongoing, structural, balanced and lasting.

In assessing the role of railways in the complex logistics supply chains operating in the Canadian economy, the Panel will need to take a comprehensive view of the total logistics supply chain. Given the interconnectedness of the players, including railways, terminal operators, shipping and trucking lines and customers, it does not make sense, and certainly would not be fair, to single out the railways for all the failures that occur in the normal functioning of complex supply chains.

A balanced and comprehensive view of railway service performance should take into account the critical fact that CN has been offering the same quality service to all its customers, without any discrimination based on the performance metrics specified for the QGI study prepared in support of the Review. It should take into consideration the fact that CN is more than willing to enter into collaboration agreements (such as the recent agreement with the Port of Halifax and its two terminal operators) providing for balanced performance targets, measuring and reporting. A balanced and comprehensive view should note that CN is providing improved service for grain and potash, balanced demurrage rules for customers, and better performance measuring and reporting to individual customers. All of these positive changes have been achieved without any additional regulation.

The bottom line, in CN’s view, is that there is no need for the Panel to recommend new interventionist regulations or a burdensome administrative oversight process. Such measures would only serve to weaken the commercial incentives that drive innovation and improvement of the supply chains necessary to meet Canada’s diverse needs for quality transportation. The Panel should recommend continued reliance on normal commercial markets, operating to the benefit of the Canadian economy.

**APPENDIX I**

**Gandalf Group Assessment of NRG Opinion Surveys**

# Memorandum



the gandalf group

*To: Canadian National Railway*

*From: The Gandalf Group*

*Date: April 15, 2010*

*Re: Railway Service Satisfaction Research Report Evaluation*

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The Gandalf Group was asked to look at two reports: Survey of Shippers and Survey of Other Stakeholders, prepared for the Rail Freight Service Review by eNRG Research Group. Our mandate was to look at the methodological and analytical approaches used in the reports and advise CN as to whether the conclusions in the report are sustainable based on the evidence. What follows is a detailed discussion of some of the issues raised by the reports. This research clearly exposes that there is a lot of room for improvement in shipper satisfaction with the service they receive from the railways. It provides useful guidance into specific areas where the railways might look to improve the service that they provide. However, we believe that the research report significantly overstates the extent of dissatisfaction among shippers. The study is compromised by the fact that shippers were primed and incited to provide negative answers by the way the study was framed to them. We also think there are certain instances where the analysis of the responses is more negative than is justified by the actual data. The following is the evidence that led us to those conclusions:

1. Conducting interviews with senior business decision makers is difficult and requires certain techniques to ensure potential respondents take their busy time to invest in responding to the survey. At the Gandalf Group we are familiar with these techniques because of the C-Suite Study we conduct for Business News Network and the Globe and Mail. Among the techniques commonly used is a letter from the survey sponsors to potential respondents, telling them the survey is legitimate and important. In this case, the letter was augmented by a news release to media, and persuasive language in the guide itself if the respondent were disinclined to participate.



All communication to potential respondents has to be carefully worded in order to not create a bias in the respondent. Business to business customer satisfaction surveys are particularly suspect to bias because respondents have an interest in the answers and motivation to answer in certain ways.

In many cases, satisfaction levels in business to business customer satisfaction surveys are overstated because respondents do not believe their responses are blind to the company they do business with and do not want to damage the relationship.

In this case, the reverse effect might have been in place. Keeping motivational bias out of the responses is even more difficult because the sponsoring organization is a third party with legislative and regulatory power. In our view, the language used by the Transport Department in the letter to potential respondents and the news release (as quoted below) and by eNRG in the survey questionnaire introduction (also quoted below) would have had the effect of priming respondents.

- “There are high levels of dissatisfaction and complaints about the railways”
- “As a shipper, this is your opportunity to tell us everything you would like changed about your relationship with the railways.”
- “The rail freight service review is being undertaken by the Government of Canada in response to complaints from shippers and other stakeholders about railway service over the last few years.”
- “The fact that we are moving forward with this review is good news for shippers of a broad range of commodity groups and will benefit grain farmers as well.”
- “Transport Canada is currently conducting a Rail Freight Service Review to investigate complaints by rail shippers. Transport Canada will also be analyzing potential remedies.”
- “A strong focus on identifying areas where performance is lacking and improvements can be made.”

That does not create a clean, neutral test of customer perception, and may have led to ratings that reflect respondent’s agendas, rather than their opinion. This element



of the study does not conform to best practices in the industry. The best practice in this area is to not tell respondents the name of the survey sponsor until the completion of the survey.

2. The sample design is curious. The report states that Transport Canada, with the help of consultants, took a total universe of 8000 Canadian shippers and derived a working sample of 585, which they provided to eNRG. From that, eNRG completed 262 interviews. That is a good response rate, but more interviews would have been helpful to the study and would have been possible had the entire list of 8000 been used. It is unclear from the report why it was necessary to cull the full list of Canadian shippers and what methodology was used to do that cull. Given that large shippers are responsible for the large majority of rail traffic, one might want assurances that this survey adequately covers opinion from the most important segments of the shipper community.
3. The number who rated their satisfaction a 6 or 7 out of 7 (with 7 meaning very satisfied) was 17% (Page 3 of the NRG report). The researchers note that customer satisfaction usually finds 50% to 70% rating their satisfaction with a top two box (i.e. a 6 or a 7). No evidence of these industry norms was presented. There is no suggestion here of whether these scores that are “usually” found are found in comparable industries (e.g. industrial/business-to-business service industries or transportation – e.g. shipping alternatives) or whether these pertain to very different sectors such as retail sectors where customer service, branding and advertising are more commonly used to impact customer experience. In the qualitative Stakeholder report, the researchers describe the half of respondents who gave the railways a score of 6 out of 7 as “fairly” satisfied. Would this make a stakeholder who rated satisfaction at 5 out of 7 “dissatisfied”?

In fact, this leads to one of the greatest flaws in the design of this study – the lack of any ability to compare perceptions of railway service to those of other modes of shipping such as road, or marine. The assumption of the study is that problems in the transportation system are primarily the fault of the railways. The study doesn't



conclude that - it starts from that assumption. The lack of comparative data leaves us with no business context.

Certainly, the methodological problems with the way respondents were primed to answer is likely playing a role here by motivating respondents to offer critical assessments. One measure of that overstatement of dissatisfaction is the fact that these shippers continue to use the railways. Of those with the most options, only  $\frac{1}{4}$  ship more than half by road, and 51% use road shipping for less than 25% of their shipments.

4. All of the analysis of customer satisfaction is built around top two box (6 and 7) scores. This is one, but not the only technique used to analyze these scales in customer satisfaction studies. More subtlety could have been revealed if mean scores had also been used, as these would reflect the full range of responses given. As it is, the responses of the bulk of respondents – the two thirds who gave scores from 3-5, are barely considered. While one would prefer having a six or a seven rating, surely a rating of five is not devoid of meaning or significance in terms of satisfaction. It is worth noting that only the “top box” scores were used in creating the quadrant analysis in the report. More commonly mean scores would be used for that kind of mapping.
5. The researchers go on to state that there is “a significant dissatisfied shipper population.” The number rating their satisfaction a 1 or a 2 (with 1 meaning very dissatisfied) is 16%. They allow that the percentage who rate their satisfaction a 1, 2 or 3 is 35%. As significant as 35% may be, the fact remains that the majority (nearly-two thirds) were either satisfied (somewhat or very satisfied with a 5, 6 or 7) or had a neutral opinion (a 4 out of 7). If one is going to say that only 6 and 7 matter for measuring satisfaction, then logically only 1 or 2 matter for measuring dissatisfaction. In that case, dissatisfaction levels of 16% are very low, especially given the motivation bias introduced into the survey. While it seems from these results that there is little enthusiasm for railway performance, neither does there appear to be “a significant dissatisfied shipper population.”



Also, given that large shippers were significantly more positive about railway performance than were small shippers, perhaps one would want to know whether the overall satisfaction ratings reported here represent most of the traffic, or most of the shippers but not much of the traffic.

6. According to the research “almost half of respondents say that their level of satisfaction with their rail provider when shipping their primary commodity has decreased over the past 3 years.” (Page 22). This percentage is so much higher than the number who have a very or slightly negative satisfaction level (i.e. the 35% who rated their satisfaction a 1, 2 or 3), suggesting that either satisfaction levels three years ago were stratospheric or that the decrease in satisfaction has been marginal.
7. It seems surprising that 62% of shippers said they have experienced at least one recent “serious financial impact” as a consequence of poor railway performance and yet far fewer (16%) had very high dissatisfaction levels with railway performance (a 1 or 2 out of 7). It leads one to conclude that serious financial impact is undefined and not necessarily the most consequential of impacts on satisfactions.
8. Interestingly, performance ratings for ALL service attributes tested (14 in total on page 31, including responsiveness and timeliness and professionalism) are higher than overall satisfaction when looking at “top-two box” scores. At the lowest end, 20% rated the performance of the rail carriers a 6 or 7 out of 7 (where 7 means performing very well) on consistency of service and accuracy of forecasting. At the highest end, on tracking shipments, 65% rated performance a 6 or 7 out of 7. The fact that shippers gave higher top 2 box scores for performance (20% to 65%) on all services than they gave for overall satisfaction (17%) reinforces the idea that the survey may overstate the level of dissatisfaction with railway performance. Another illustration of this overstatement is that when asked to offer ideas for operational improvements that their primary rail carrier could make to improve their service, 59% of respondents either cited communications, prices (unrelated to service), initiatives too small for the researchers to identify, or offered no suggestion at all.



9. Respondents were asked to rate the importance of service attributes (14 were tested) as well as rate performance against those attributes (page 31). The report highlights how top two box scores for importance were higher than top two box scores for performance meaning there was a gap between performance levels and the relative importance of the service on which performance was measured. We have no sense of actual or overall satisfaction when it comes to performance on these services; we are presented only with top two box scores. A top three box score may have found much smaller gaps for instance. Similarly we have no sense of average ratings on performance in terms of mean scores that shippers gave, or whether the majority is satisfied with the performance on each service attribute on a seven point scale.
  
10. One of the key findings in the report's Executive Summary reads as follows: "The most frequently suggested ways to hold the railways to account included: *commercial dispute resolution; financial penalties (enforced through regulation) and more government regulations in general.* 41% of shippers feel that some degree of railway re-regulation would improve overall freight service in the country. This percentage dropped slightly when asked if they would still support this position if it meant the government would have to return to the subsidization of rail service in the country." (page 9)  
  
When shippers were "asked how the railways should be held accountable," 16% said "government regulations" in an open ended question (page 50), 21% said "financial penalties," while "commercial dispute resolution" was the most frequently cited by 22%. Only 2% mentioned the Canadian Transportation Act while 10% mentioned "confidential contract terms." Government legislation or regulation therefore is not significantly top of mind when looking at these responses in contrast to what is stated in the executive summary.
  
11. The qualitative stakeholder report is, by definition, based more on researchers' perceptions and not at all on data – based as it is on 28 interviews. Although they report the numeric ratings in the report, in the methodology section they caution that no weight should be given to the data they report in this study and that it cannot be extrapolated to the stakeholder community. We agree, and those results should not have been reported. The discussion around satisfaction in this report is

# Memorandum



the gandalf group

confusing. In the shipper report a score of 6 or 7 is the only thing worth noting. In this study, even a rating of 6 out of 7 counts as only “fairly” satisfied. Those who say that railways met their expectations in terms of service, including most terminal operators, are dismissed because it is unclear whether it is positive or negative to have “met expectations.” Yet it is still possible for the researchers to reach a strongly negative inference from those stakeholders who say that railways did not “meet their expectations.”

Those who the researchers report to be less satisfied with railway performance tend to cite either inadequate communications or a desire for a more collaborative relationship with the railway. There is no clear service failure identified as the source of overall dissatisfaction.

Indeed, the theme seems to be that the results are good, but the relationship is less good. The proverbial trains are running on time - “*trains are getting from point A to point B in good time*” – but not in a terribly customer friendly or consultative way.

It is very notable that the strongest positive reviews come from Prince Rupert, a “captive” port whose officials are effusive about the service from and relationship with CN.

**APPENDIX II**

**Electronic Communication to Customers Explaining Key Changes to CN's "First Mile – Last Mile"  
Activities – October 2009**

**(Demurrage Program, Advance Notification of Local Services Changes  
and Improvement to Guaranteed Car Order Program)**

Dear Customer,

I would like to advise you of changes that CN will be making to our optional services charges in late 2009 and early 2010.

We have been meeting with customers and industry associations over the last few months concerning these charges with the goal of improving the application of optional services. As of January 1, 2010, there will be no new fees implemented unless government-imposed, and minimal changes to existing fees, most of which will increase between 1 and 4 percent.

The changes outlined below will impact many of our customers, so please read on or consult CN's Optional Services tariff 9000-L on our website ([www.cn.ca/optionalservices](http://www.cn.ca/optionalservices)) for details on the items that are relevant to your business.

### **Improvements to the application of asset use**

Our line haul rates include the movement of your shipment from origin to destination. Those rates also include time or 'credits' for loading and unloading railcars. If you load or unload railcars in less than the allocated time, you may use the remaining 'credits' to offset 'debits' (asset use time) during the period. Extended asset use fees are assessed when net debits exceed credits during a service period.

Generally, assuming the car is placed on the day the customer ordered it (the want date), extended asset use fees start at 00:01 of the day following the day the railcar is placed. On the occasions where we are unable to deliver the railcars as requested, and as a result you must exceed the amount of time we provide for loading and unloading, we will work with you to make it right. The following rules, which we have rewritten this year, further clarify when the charges apply:

#### **At Loading Origin (CN 9000, Item 9000)**

There are four types of exceptional placement of empty railcars at loading:

1. **Early Placement:** When we place railcars at your site earlier than your want date, CN's automated system will credit you for the early placement, and asset use time will not start until 00:01 the day after your want date.
2. **Late Placement:** When we place railcars later than your want date, CN's automated system will credit you for the late placement, and asset use time will not start until 00:01 the day after your next want date.
3. **Bunching:** When we place more railcars than ordered earlier or later than your want date, CN's automated system will credit you, and asset use time will not start until 00:01 the day after your next applicable want date on each car.
4. **Placing railcars outside of regular service assignment:** When we place empty railcars on your want date but later than your regular service assignment (as defined on CN's website), you must advise us by using the feedback area of CN's Asset Use tool. We will

manually provide you with extra credits per car, treating it like a "Late Placement." CN is working to automate this process in the future.

#### **At Unloading Destination (CN 9000, Item 9050)**

CN will also revise the asset use rules at unloading applicable to both railway-provided railcars and private fleets. We want to provide customers with a fair allotment of time for unloading. As of December 1, 2009, asset use fees will not start until the railcar has arrived at your serving yard, and 00:01 the day after your next scheduled assignment .

#### **Simplification of asset use for export grain (CN 9000, Items 9050 and 9100)**

As of October 1, 2009, we eliminated our Export Grain Asset Use tariff (CN 6060) and we now apply CN 9000, the same way we do for the majority of our customers. This has resulted in a simplified asset use process for the Canadian export grain industry, which remains committed to 7-days-per-week unloading and fluidity at the ports.

#### **Services to correct unsafe, overloaded or improperly loaded railcars (CN 9000, Item 14100)**

In an effort to improve safety and minimize accidents and derailments, in January 2009 we introduced escalating fees for customers repeatedly overloading or improperly loading railcars. The fee structure increased from \$2,000 for the first incident, to \$5,000 for the second incident and finally \$10,000 for subsequent incidents. Over the course of the year, we have been successful in reducing incidents caused by overloaded or improperly loaded railcars by 50 percent. As a result, effective January 1, 2010, we will modify our tiered fee structure and assess a fee of \$2,000 for first and second incidents, and then escalate the fee to \$5,000 for the third incident and finally \$10,000 for subsequent incidents. This item's rate structure will be reset each calendar year. We thank our customers for working closely with us on improving this systemic safety issue.

In addition to the changes in optional service listed above, the following service enhancements will also be implemented in December:

#### **Advance notification of local service changes**

We know that being notified of service changes is important to you, and we will be launching a new eBusiness tool, **Local Service**, in December to allow customers to receive notification of any local service changes. CN will provide five days advance notification for all changes involving day of week and/or frequency of switching services at the customer's local facility. We will also do our best to advise you in advance of any changes to specific switching service windows/times.

#### **Improving our Guaranteed Car Order program**

We are also enhancing our Guaranteed Car Order (GCO) program to improve our performance on the delivery of the number of rail cars ordered. When we are unable to meet our guaranteed empty car supply, we will offer the option to re-order the rail cars the following week, providing you, our customers, the opportunity to catch up on missed shipments. We will require the reorder from

customers the Monday morning following the week of the shortfall in provision of empty railcars. We will offer this improved GCO service as of December 1, 2009 via the enhancement of our eBusiness tool, **Car Order**, available on our website.

In addition, we will be offering free webinars so that you or your front line personnel can take full advantage of our new and enhanced eBusiness tools. You can sign up by sending an email with your contact information to [webinar.training@cn.ca](mailto:webinar.training@cn.ca). We will contact you to set up a session at your convenience.

We remain committed to providing you with streamlined services.

Sincerely,

James M. Foote  
Executive Vice-President  
CN Sales & Marketing

**APPENDIX III**

**Summary of Action Plan  
Changes to Car Order, Changes to Guarantee Process**

# Summary of Action Plan

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Changes to Car Order  
Changes to Guarantee Process



# New 7-day rolling Car Order Process

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- Customer can request guaranteed car orders a minimum of 7 days or up to 4 weeks prior to want date (eg. order cars on Monday for the following Monday and beyond.)
- On Monday customer can order cars for the next Saturday/Sunday (5/6 days away)
- Order Cut-off would be noon local time, based on the CCO location
- CN would review orders and apply guarantees by noon the following day, locking in delivery commitment for 6 days away (eg. on Tuesday for following Monday)
- Customer would be able to cancel orders without penalty 3 days prior to want date, as long as a specific car has not been tagged to the order e.g. Monday by noon cancel orders for Thursday
- Similarly Guarantee Car Order rebate/penalty will be discontinued
- If a car cannot be cancelled, it will be delivered and Asset Use charges will apply
- Shortfalls will be carried forward automatically based on a facility specific threshold defined by the customer
- Customer will also be able to cancel shortfalls.
- When shortfall exceeds a reasonable limit (to be discussed), a conversation with the customer will take place

# New Car Order – Want Time

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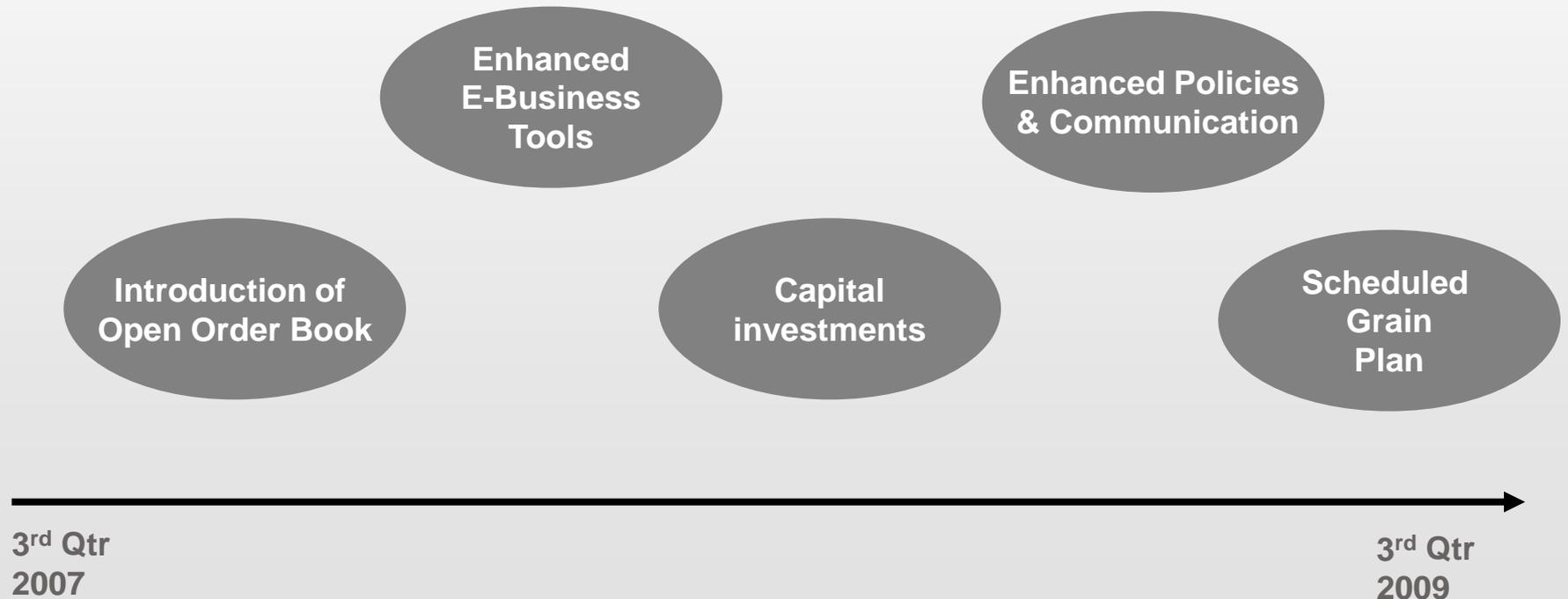
- Customer can specify when the car is required for loading - want date and want time - by three buckets (days, afternoons and nights).
- CN would determine when to deliver the car to the facility to meet the want time requirement
- Car will be considered delivered for the want day if within a time not later than want date/time + x hours (to be determined)

**APPENDIX IV**

**Description of Improvements Made by CN to its Western Canadian Grain Program**



**Since fall 2007, CN has made many changes to improve service to Western Canada grain shippers**





## New Grain Open Order Book

### Previous Car Order Process

- **Cumbersome:** multiple steps.
- **Incomplete demand** (no origin information)
- **No forward demand signals** (1 week ahead)
- **Initial requests rationed**
  - Shippers had to re-order cars if initial request not satisfied.
- **Undisciplined** -- “phantom ordering”

### Open Order Book (Jan/08)

- **Simplified:** 1-step.
- **Shipper requests no. of cars, origin, destination corridor, want date/week.**
- **Order flexibility** – 24/7, up to 16 weeks ahead
- **Unconstrained demand**
  - All car orders remain in Open Order Book until filled (unless shipper cancels).
- **Order integrity** – customers specify origin

**Forward signals of “real” origin-specific demand — facilitates operational planning to match resources to demand.**



## New eBusiness Tools (Summer 08)

### Grain Car Order

- Shippers can order railcar requirements via web
- Order modification / cancellation capability
- 7 / 24

### Order Status

- Shippers can view current status in Grain Car Order tool
- Tool for CWB

### Service Plans

- Visibility of planned service to all origins
- Live updates – enables tracking of changes
- Tool enables Producers to track Producer Car Orders



Western Canada Grain - Order Book Report / Regi  
2009-2010 Crop Year / Cam

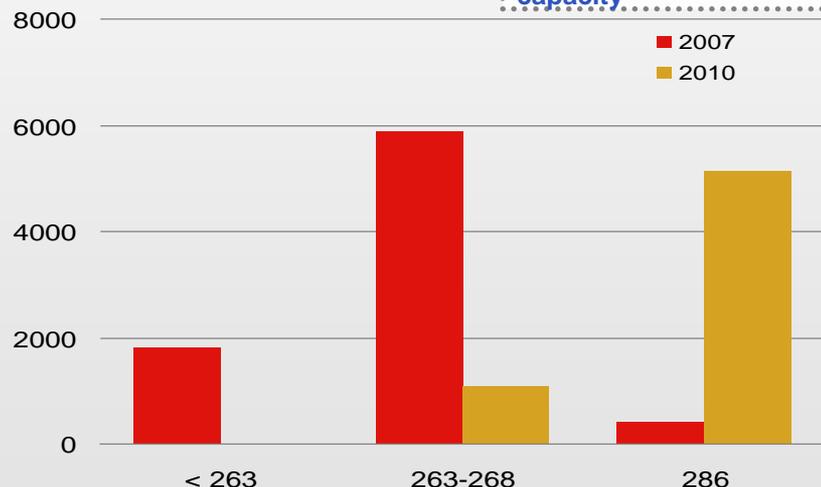
Updated on / Mise à jour : 9-Nov-2009

	Grain Week	Vancouver
<u>Order Book Status / État du registre des demandes</u>		
Orders planned to be spotted in week of / Wagons demandés à mettre en place pendant la semaine du :	01-Nov-09	14 1,877
	08-Nov-09	15 1,893
Outstanding orders as of / Demandes en attente au :	08-Nov-09	19
Future weekly orders beyond and including the week of / Demandes futures au-delà la semaine du :	08-Nov-09	15 1,894



## CN invested \$34M to recondition and increase carrying capacity of Government of Canada grain cars.

**GOVERNMENT & CWB CARS**  
number of cars by car weight



In 2009, funded by CWB, CN's Transcona shop upgraded 1,700 CWB grain cars, incl. 286K capacity.

### Benefits of car upgrade

- In 2008, CN upgraded 3,000 Government of Canada grain cars.
- Replaced troublesome outlet gates
- Increased maximum payload by 13%
- Extended car life from 40 to 50 years
- Completed 4 years ahead of schedule

CN also investing \$1 M in trackage improvements at Prince Rupert to facilitate longer train operations and increase throughput



## Enhanced Policies and Communication

### Revised Demurrage Policies

- **Standard CN 9000**
- **Bilateral agreements with W Coast terminal elevators – 7-day unloading**

### Weekend Loading Advantage

- **To promote 7-day loading**
- **CN pays \$30/car incentive credit**

### Joint Metrics with Customers

- **transparent metrics developed & shared:**
  - **Plan performance (day and time)**
  - **Failure notification**

**CN is adjusting policies through consultation with customers**



# Scheduled Grain Plan



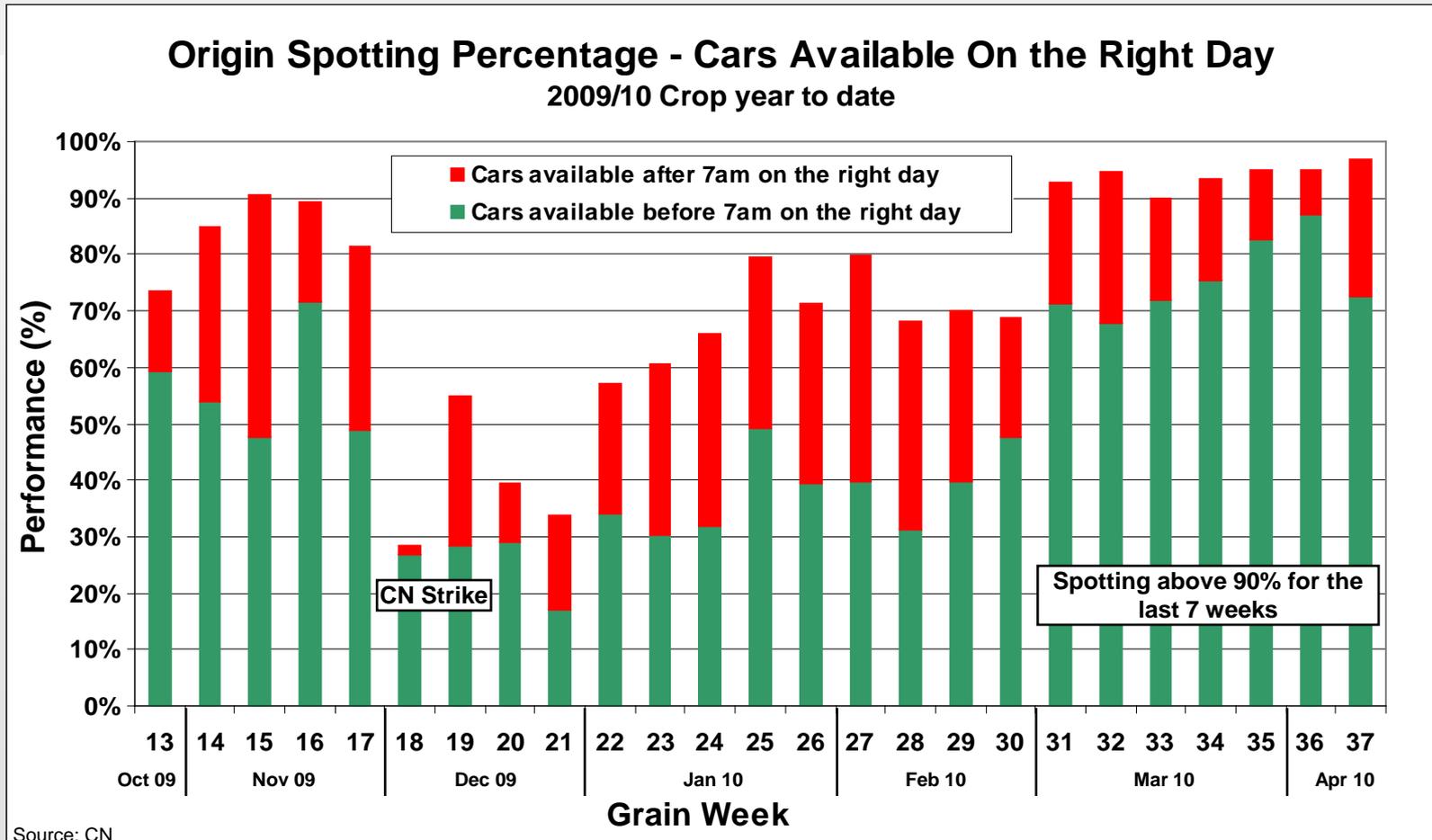
## Customer satisfaction affected by supply chain variability – however, there is opportunity to change

### Implement scheduled / assigned service from major hubs

- All elevators (> 50cars) have scheduled day of week for service
  - Same day each and every week orders are planned (07:00 spot time)
- Match up smaller loaders with larger anchor facilities (> 50 car facilities)
  - Part of core planning to ensure no service discrimination
- Edmonton / Symington become key car distribution hubs
  - Strategic pool of empty cars at key locations to offset variability of empties from Ports – increases ability to make plan
- Expedite loads from hub to destination - Increases reliability for loaded supply chain

***95% of weekly grain spotting plan becomes scheduled***

## Grain Spotting Performance To the day & time of day





## Customer and CN benefit from scheduled grain plan

### Customer Benefits

- ❑ **Consistency and Reliability**
  - Fixed service days and spot times
  - Reduced labour costs (OT)
  - Better scheduling of producer deliveries to elevators
  - Better scheduling of grain inspectors
  - Enhanced reliability in overall supply chain (empties for placement, loads to port)

### CN Benefits

- ❑ **Better planning capabilities**
  - Simplified planning/execution processes
  - Customers to load 7 days/week as part of the core plan
- ❑ **Improved customer satisfaction**
  - Increased reliability in spotting customers
  - Improved exception notification process

**APPENDIX V**

**Electronic Communication to Customers on Availability of Commercial Dispute Resolution (CDR) Process**

**– and –**

**PowerPoint Presentation to Customers Describing the CDR Process**



"Jean-Jacques Ruest"  
<corp-mktg@cn.ca>

2010/04/29 15:45

To [CN Customer List]

cc

bcc

Subject You spoke. CN listened. CDR agreement - Canada



Dear Customer,

CN has a new Sales/Marketing/Operation organization in place. Many of you told us you have already noticed that we are making tangible and genuine efforts in becoming more customer focused, while maintaining our legacy of operational excellence.

For example:

- We are focusing on the first mile and last mile of our service.
- We modified the rules of application of origin demurrage in August 2009 and of destination demurrage in December 2009.
- We are engaged with a group of customers to modify our car ordering process to make it more responsive to your needs with your own customer orders.
- We implemented a day of the week scheduled grain service, which generated great satisfaction reviews in the first Quarter of 2010.
- We are managing our car order book in a way that fulfills a higher percent of total weekly orders. We want to be there for you and your own customer's sales.
- We are taking a supply chain view on our role in the transportation business and are engaging with Ports and Bulk Terminals to make Vessel-Terminal-Rail work more cohesively.

While these initiatives are already producing benefits, there will be from time to time difficult issues where we will not agree. When disputes arise, we would like to offer our customers a commercial dispute resolution process. This is a commercial process with mediation and binding arbitration to help find a common ground to agree on, which also dramatically speeds up the process and reduces costs for all parties.

Please find attached the [CDR agreement](#) and a [CDR presentation](#) overview. The CDR applies to service and linehaul rate issues subject to the CTA, and issues relating to the application of optional services tariff.

This is a genuine effort by CN to further improve our interface with customers. We look forward to growing our business with you.

Sincerely,

Jean-Jacques Ruest  
CN Executive Vice-President  
and Chief Marketing Officer

Unable to see the links in this email? Go to: <https://www.cn.ca/en/commercial-dispute-resolution.htm>



CN's Commercial Dispute Resolution (CDR)



# CN's Objectives

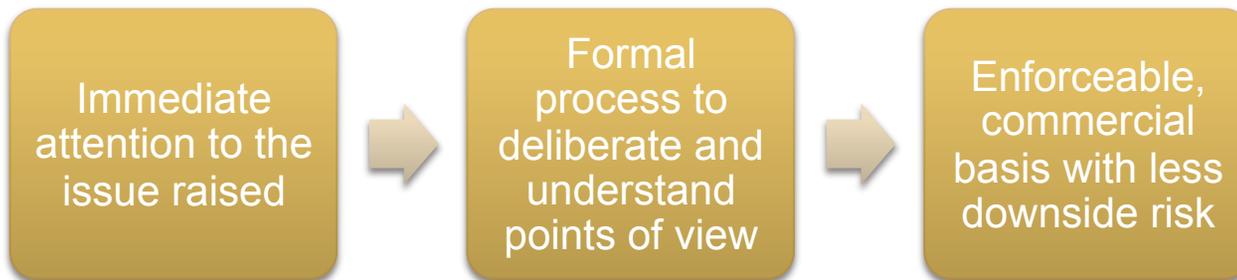


- Improve responsiveness and flexibility
- Improve communication between CN and its Customers through a mandatory mediation
- Address Customers' issues that are raised
  - Rate issues
  - Service issues
  - Application of CN Optional Services

# What is the CDR Agreement?



## Benefits for CN Customers



# What does it apply to?



Transportation Rate Disputes	All rates charged or proposed to be charged for the movement of goods, with associated terms and conditions, that may be subject to an FOA under S.161 of the CTA
Level of Service Disputes	All railway service obligations that may be subject to complaint under S.113 to 116 of the level of service provisions of the CTA
Optional Services Application	It is about how optional services charges are being applied – and not about the price of the services as published in the tariffs. Issues about prices and condition must apply uniformly to all customers and therefore, must be dealt through recourse to the Agency



# How does the CDR process work?

## Phase 1 **Mediation**

- Agency or member appointed as mediator – efficient, low cost process
- Under current mediation process
- Parties or mediator free to terminate mediation and jump to Phase 2 at any time
- Mediation to run for no more than 2 days unless extended upon agreement between parties – within an overall 15 working day process

## Outcome

- Settle dispute with a confidential agreement between parties
- If breached, current enforcement mechanisms would continue to apply

## Benefits

- Inexpensive – Agency supplies mediators
- Agency already staffed and trained
- Collaborative
- Mediation has good track record of effectiveness in railway disputes

## Phase 2 **Binding Commercial Arbitration**

- Agency or member appointed as arbitrator (unless otherwise agreed) – faster, lower cost process
- Arbitrator makes the Decision

## Outcome

- Outcome is decision of arbitrator
- Confidential agreement between parties
- If breached, current enforcement mechanisms would continue to apply

## Benefits

- Experienced transportation experts to arbitrate cases
- Flexible, effective and less costly
- Rate decisions have possible duration beyond 1 year, 2 years maximum
- Will formalize under Confidential Agreement

# What are CN's principles?

## + Collaborative

More collaborative process to deliberate and understand respective points of view

## + Efficient

Mandatory mediation with the option to follow with binding commercial arbitration or existing CTA remedies

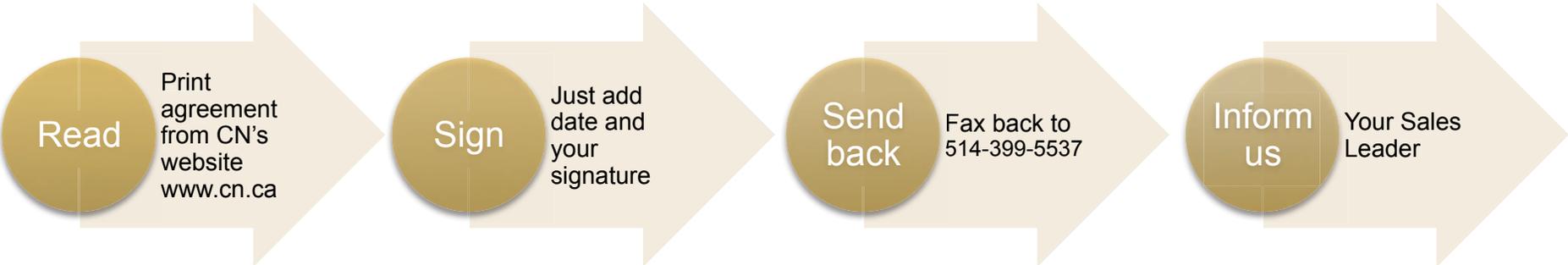
## + Timely

- **15** working days from appointment of a mediator
- **60** working days from Arbitrator opening conference call for linehaul rates and level of service issues

## + Commercial

Arbitration decision is binding and can be a compromise that minimizes risk to both parties

# How do you sign up?



An efficient dispute resolution process, with value to our customers

