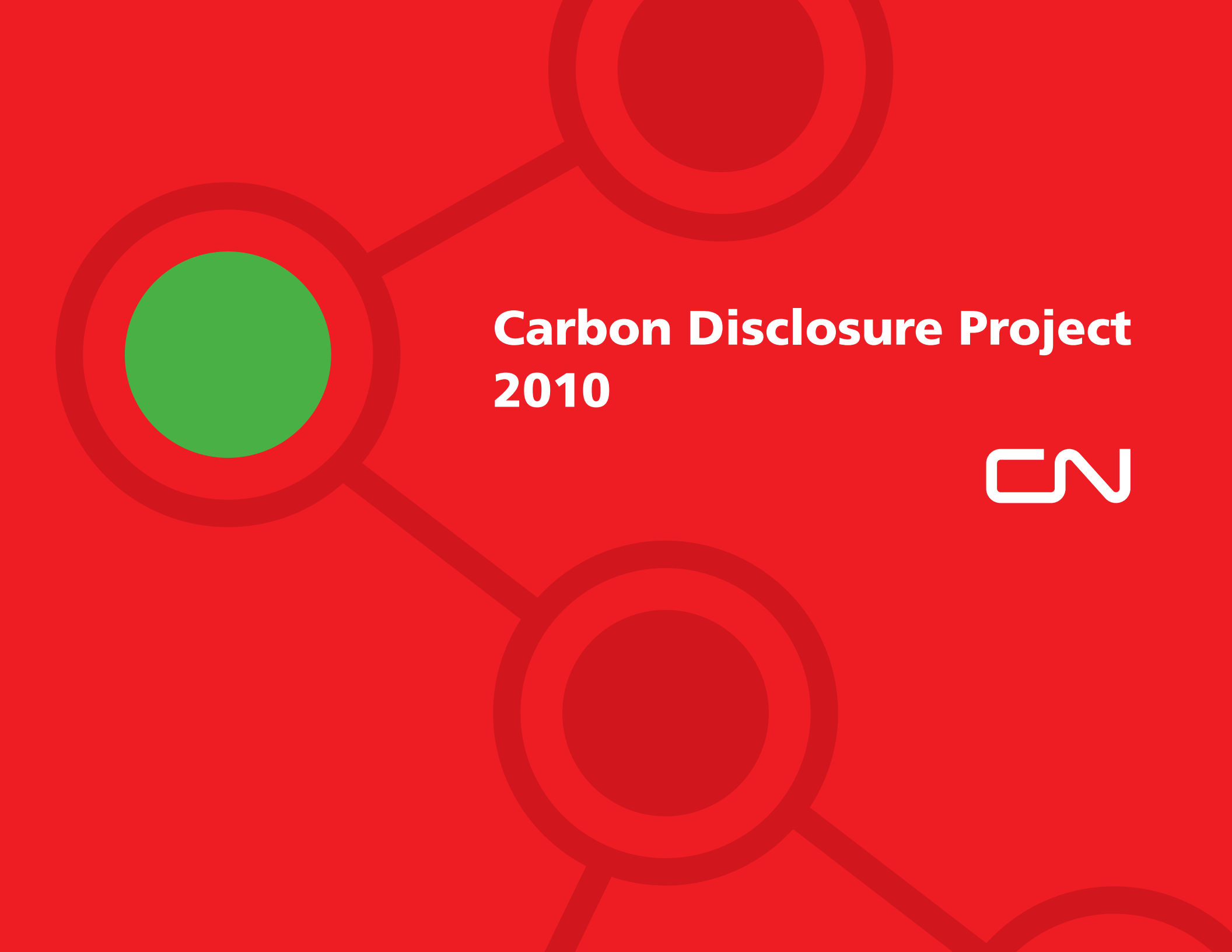




# **Carbon Disclosure Project 2010**



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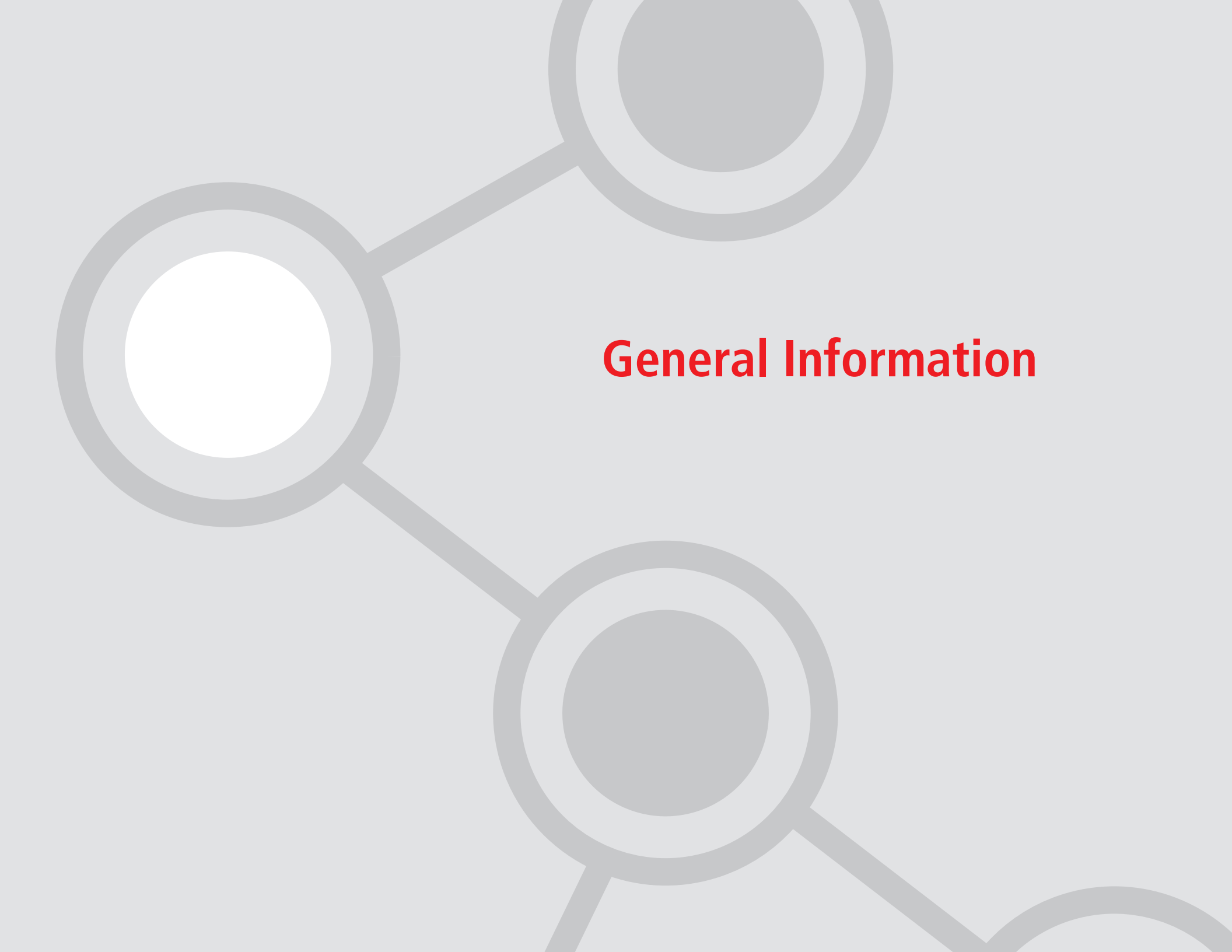
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## General Information

## General Information

As a leader in the North American rail transportation industry, CN understands that long-term success is connected to a sustainable and viable future. This is why we have deepened our sense of commitment to addressing climate change, and believe that rail can be an integral part of the solution. Compared to air or truck modes, rail is the most efficient method of moving freight, while at the same time relieving traffic congestion and removing stress from our strained public infrastructure.

With the environmental and economic advantages of rail, we have continued to embrace our climate change commitments with a sense of optimism. Efficiency and emission reduction has always been an integral part of how we have operated the railroad, driven by our innovative Precision Railroading approach.

Through this model, fewer railcars and locomotives are needed to ship the same amount of freight in a tight, effective and efficient operation. Over the years, the Company's Precision Railroading initiatives, greener fleet acquisitions that include distributed power, rail yard efficiencies, and focused fuel conservation practices, have contributed to the reduction of CN's carbon footprint, making us the most efficient and productive railroad in North America.

*As a leader in the North American rail transportation industry, CN understands that long-term success is connected to a sustainable and viable future.*

| 2009 Performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2010 Performance Focus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>» <b>Carbon Reductions / Efficiency Improvements</b></p> <p>CN achieved an industry-low operating ratio of 66.7%, a fuel improvement of 2.1%, and, a Greenhouse Gas emission intensity (tCO<sub>2</sub>e/GTM) reduction of 5%.</p> <p>» <b>Rail Yard Performance</b></p> <p>In improving the performance of our rail yards, we recently completed a project to transform the aged and inefficient Memphis rail classification yard into a state-of-the-art, effectively designed terminal. We also continued to integrate the acquisition of the Elgin Joliet &amp; Eastern's Kirk (EJ&amp;E) Yard in Gary, Indiana, which we expect will drive even greater carbon efficiencies and operating improvements on CN's network.</p> <p>» <b>Low Carbon Economy Business Development</b></p> <p>The Company is also focused on developing new business opportunities stemming from an expected increase in products fuelled by a low carbon economy. We have already observed an increase in shipments of sustainable energy products, including biodiesel, ethanol, wind turbine components and wood pellets.</p> <p>As North America's largest mover of forest products, CN hauled more than 800,000 tons of wood pellets in 2009, and sees more opportunities in the future for this 'green' source of heating energy. We expect North American consumption of wood pellets to exceed 3.3 million tons in 2010. Our broad North American coverage and access to ports on three North American coasts, positions us well to benefit from the growing demand to ship sustainable energy products.</p> | <p>» <b>Innovative Carbon Reductions / Efficiency Improvements</b></p> <p>Over the next few years, we will be even more focused in promoting innovative paths towards efficiency by expanding our operational excellence, founded on precision railroading, to the non-locomotive aspects of our business. In 2010, we set a fuel improvement target of 4% covering both locomotive and non-locomotive operations. Through this initiative, we expect to leverage our operational excellence in rail to cover CN's other non-locomotive activities related to intermodal, the Great Lakes vessel fleet operations, facilities management, vehicle fleet management, and rail yards.</p> <p>» <b>Low Emission Transportation for Customers</b></p> <p>As climate change gathers momentum, government, customer supply chain, and market pressures will play an important role in shaping the logistics operating environment, favouring low emission transport services. To leverage the opportunities, CN not only provides the most fuel-efficient operations to our customers, but also a modal shift quantification protocol that can be used to gain carbon credits by switching freight from truck to rail (the first of its kind in North America). To date, the protocol has been well-received in North America. It has already been adopted in the provinces of Alberta and British Columbia and is currently in discussions with the Western Climate Initiative.</p> <p>» <b>Employee Incentives and Performance Alignment</b></p> <p>All of this would not be possible if it were not for our most valuable assets, our employees. In recognizing the contribution of our employees, we will be working towards aligning our climate change objectives with the skills development and performance management of our work force.</p> <p>» <b>Stakeholder Engagement</b></p> <p>We also expect to enhance the CN experience with our stakeholders to position freight transportation carbon efficiency opportunities at a policy level as well as with our customers, partners and suppliers. In particular, we are focusing on fostering closer working relationships with our customers through 'the first mile-last mile' activities for handling customer loads, to provide more efficient shipment delivery services. Our focus on customers is already being well-recognized. In 2009, CN was awarded the prestigious Innovator of the Year award by Wal-Mart Canada, recognizing the Company's ability to deliver 'truck like' service, which has enabled CN and Wal-Mart to continue to benefit from both the cost savings and positive environmental impacts of these services.</p> |

As we look to the future, we are confident that our climate change initiatives are well aligned with the Company's business goal to return value to our shareholders on a long-term basis. With more goods to be moved and more need for carbon responsible solutions, CN has never been better positioned to play a leadership role in the transportation sector.

*CN – Canadian National Railway Company and its operating railway subsidiaries – spans Canada and mid-America, from the Atlantic and Pacific oceans to the Gulf of Mexico, serving the ports of Vancouver, Prince Rupert, B.C., Montreal, Halifax, New Orleans, and Mobile, Ala., and the key metropolitan areas of Toronto, Buffalo, Chicago, Detroit, Duluth, Minn./Superior, Wis., Green Bay, Wis., Minneapolis/St. Paul, Memphis, and Jackson, Miss., with connections to all points in North America. For more information on CN, visit the company's website at [www.cn.ca](http://www.cn.ca). Information on delivering responsibly, including climate change is available at: <http://www.cn.com>*



**Governance**

# Governance

## 1. Group and Individual Responsibility

1.1 Highest level of responsibility for climate change.

The highest level of responsibility for climate change falls at both the executive and board level of the Company. At the executive level, ultimate responsibility for climate change falls under the Chief Executive Officer (CEO). At the board level, climate change responsibility is under the Environment, Safety and Security Committee of the Board.

1.2 Mechanism by which the board committee or other executive body review climate change progress and status.

The executive body and board committee review the company’s progress and status regarding climate change on a quarterly and annual basis, through interactions with Environment, Safety and Security Committee of the Board. Through these meetings the Board assesses performance against key indicators as well as the relevancy and effectiveness of material information, including sustainability and climate change reporting information.

At the executive level, the Vice President of Operations, Chief Safety Officer and Assistant Vice President of Environment, communicate with the CEO regularly on strategic sustainability and climate change initiatives. Also reporting to the CEO is a cross functional sustainability committee with senior representation from CN’s departments, including, operations, public relations, marketing and sales, environment, health & safety, governance, IT, supply management, and human resources. The sustainability committee meets quarterly to define and align CN’s sustainability and climate change priorities with the business strategy, and monitor performance through the sustainability action plan.

## Individual Performance

1.4 Incentives for climate change management, including attainment of Greenhouse Gas (GHG) targets.

Where relevant, management level employees are measured against a number of business performance indicators, which includes fuel improvement. When business objective are being met and exceeded, employees are eligible for bonus incentives. Since fuel improvement performance is directly linked to GHG emissions, the incentives provided are related to our climate change objectives.

| Who is entitled to benefit from those incentives? | The type of incentives                                                                                   |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Relevant management staff                         | Portion of the 25% bonus structure awarded to the achievement and ability to exceed business objectives. |



# **Risks and Opportunities**

# Risks and Opportunities

## 2. Process to Identify Risks and Opportunities

2.1 Process to identify significant risks and / or opportunities from climate change and affect on the business, including the financial implications.

### Identification of Risks and Opportunities

A comprehensive climate change risks and opportunities identification exercise is conducted annually through the direction of the sustainability committee. This process incorporates departmental risk assessments, as well as information from external regulatory reviews, performance data, market trends, and customer analyses. The information is compiled and the potential implications to the business in terms of risks and opportunities are identified in a register.

### Assessing the Impacts on the business

Climate change risks and opportunities are assessed based on the likelihood of the event and the level of magnitude of the impact in terms of the economic, environmental and social implications, using qualitative ratings of low, medium and high. In determining the financial implications of the risks and opportunities, the Company considers the cost investment implications in relation to the potential to generate revenues and save costs.

This approach is conducted in accordance with the methodology as set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework for Enterprise Risk Management.

*Description of impact categories considered in determining the level of magnitude*

|                                                             | Economic                                                                                                                           | Environmental                               | Social                                                                                                 |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Potential Impact Categories in determining magnitude</b> | Financial cost<br>Governance / management<br>Brand and reputation<br>Damage to assets (property, buildings)<br>Strategic alignment | Air<br>Land<br>Water<br>Waste<br>Ecosystems | Health and Safety<br>Community well-being<br>Employee attraction and retention<br>Stakeholder concerns |

### Assessing the Significance of the Impacts on the Business

Risks and opportunities that result in a medium or higher rating are assigned as significant. For CN, a significant rating is not synonymous with the concept of materiality as determined in our financial reports. Significance reflects those climate change risks and opportunities that could have both strategic and non-strategic implications on the business that the company is monitoring and acting on to enable risk prevention and opportunities maximization. Climate change information that could be material is presented in the MD&A section of our financial annual report.

Where a significant rating of high is assigned to a risk and opportunity, the Company conducts a more strategic review at the executive level to assess the costs and benefits associated with proposed strategic climate change programs to ensure alignment with CN's business goals. Once approved, strategic climate change programs are tracked and monitored through the sustainability committee's action plan.

This information is generally discussed at meetings of the Executive Committee and where relevant, information is also presented to the Board of Directors. On an annual basis, significant climate change risks and opportunities are made publicly available to CN's stakeholders, including investors.

# Risks and Opportunities

## 3. Regulatory Risks

3.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

Regulatory risk exposure is identified based on external regulatory assessments, interactions with governments and industry associations. The significant regulatory risks for the Company have been identified and include voluntary agreements, air pollution limits, fuel / energy taxes and regulations, emission reporting obligations, cap and trade schemes, and uncertainty surrounding new regulations. The regulatory risks were then assessed for significance based on the likelihood of the regulatory risk occurring and the severity of the impact on the Company.

| Frequency / Probability | High               |     | 4                   | 3                  |
|-------------------------|--------------------|-----|---------------------|--------------------|
|                         | Medium             |     |                     | 5                  |
|                         | Low                |     | 6 1<br>7 2<br>11 12 | 9 8<br>14 10<br>13 |
|                         |                    | Low | Medium              | High               |
|                         | Severity of Impact |     |                     |                    |

### Voluntary Agreements

1. Canadian MOU on rail emissions
2. US SmartWay Agreement

### Air Pollution Limits

3. USEPA locomotive standards
4. USEPA vessel standards
5. Canada proposed standards
6. Heavy duty vehicle standards (pending)
7. Light duty vehicle standards
8. Canadian rail yard standards

### Fuel Energy Taxes and Regulations

9. Renewable fuel content standards
10. Fuel carbon tax

### Emission Reporting Obligations

11. EU Aviation Directive

### Cap and Trade Schemes

12. Western Climate Initiative (WCI)

### Uncertainty Surrounding New Regulations

13. US Climate Bill
14. Canadian federal and provincial regulations

|  |                                                                               |
|--|-------------------------------------------------------------------------------|
|  | High significance - disclosure and alignment with business strategy           |
|  | Medium-high significance - disclosure                                         |
|  | Medium low significance, disclosure depends on risk perception of the Company |
|  | Not significant, disclosure not required                                      |

# Risks and Opportunities

## 3.1 Regulatory Risks

3.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

### Risk / Impacts

### Risk Management

#### VOLUNTARY AGREEMENTS

##### Canadian Memorandum of Understanding (MOU) on Rail Emissions

Since 1995, CN has been committed to meeting its MOU obligations under Environment Canada and Transport Canada. In 2007, the MOU was renegotiated to include a 2010 GHG emission intensity target for each category of railway operation. Through the MOU, Class I Freight Railways are committed to acquire, retire and upgrade locomotives, to improve air quality, enhance fuel efficiency and reduce GHG emission intensity. The MOU obligations could expose CN to operational and compliance risks.

Since 1995, CN has been committed to meeting its MOU obligations under Environment Canada and Transport Canada. In 2007, the MOU was renegotiated to include a 2010 GHG emission intensity target for each category of railway operation. Through the MOU, Class I Freight Railways are committed to acquire, retire and upgrade locomotives, to improve air quality, enhance fuel efficiency and reduce GHG emission intensity. The MOU obligations could expose CN to operational and compliance risks.

##### United States Environmental Protection Agency (US EPA) SmartWay Agreement

CN is a signatory to the U.S. SmartWay Agreement, a voluntary program between the U.S.EPA and the rail industry to increase energy efficiency and reduce air pollution and GHG emissions. Please see attached. The goal of the program is to eliminate between 33-60 million metric tonnes of CO<sub>2</sub> emissions and up to 200,000 tonnes of NO<sub>x</sub> emissions per year in the U.S. by 2012. The SmartWay Agreement could expose the Company to compliance risk.

From an operational perspective, the principles of SmartWay align closely with the Company's 'Precision Railroading' model and ongoing emission reduction programs that fit with our operational efficiency objectives. In addition, we have also developed a SmartWay action plan outlining our environmental performance improvement projects. The plan includes the installation of top of rail lubricant systems, employee awareness on fuel conservation, improved train handling procedures, and reduced engine idling. We are currently awaiting the renewal of the SmartWay agreement.

#### AIR POLLUTION LIMITS

##### USEPA Emission Regulations for Locomotive Engines

In the US, CN's locomotive emissions are regulated by the US EPA, which sets emission standards for newly manufactured and re-manufactured off-road engines, covering Sulphur Dioxides (SO<sub>2</sub>) Nitrogen Oxides (NO<sub>x</sub>), Hydrocarbons (HCs), Particulate Matter (PM), and Carbon Monoxide (CO).

CN has set out to purchase only tier-compliant engines as part of our locomotive retirement and remanufacture program. Our new locomotives are much more fuel efficient than older models, which provide the added benefit of yielding sizeable reductions in CO<sub>2</sub>. In 2009 we acquired 90 additional, even more efficient (up to 20%), electro-motive diesel (EMD) locomotives.

In 2008, the EPA adopted even more stringent locomotive Tier 4 emission standards on PM and NO<sub>x</sub>, with an additional requirement that mandates the application of idle emission controls on newly manufactured and remanufactured engines. Furthermore, the EPA Rule on air emissions from large vessels in U.S. water was finalized in late 2009. These more stringent standards are expected to phase-in in 2015 and could expose the Company to greater technological, financial, and compliance risk exposure. Research and development is currently underway and cost increases are not yet well understood.

To meet the more stringent Tier 4 standards, the application of high-efficiency catalytic after-treatment technologies will be necessary. We are working with our manufacturers in the development of new engine technologies that can effectively lower fuel consumption and emissions. CN has also maintained its partnership with General Electric and Sustainable Development Technology of Canada in the advancement of the next generation of locomotives for GHG reduction and is investing over CDN\$ 1 Million in 'in kind' labour and one locomotive for a 3-year period (2009, 2010, and 2011).

Looking forward, we continue to monitor ongoing research to advance technologies related to off-road engines, including hydrogen injection, GenSet, and alternative fuels such as natural gas.

# Risks and Opportunities

## 3. Regulatory Risks (cont.)

3.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

| Risk / Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Risk Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AIR POLLUTION LIMITS (CONT.)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><b>USEPA Emission Regulations for Vessel Engines</b></p> <p>The more stringent 2008 US EPA Rules on off-road engines also apply to marine compression ignition engines under 30 liters per cylinder (i.e. commercial ship generator engines, tugs, ferries, fishing vessels, recreation vessels). Tier 3 phases in from 2009 to 2014 and Tier 4 phases in from 2014 to 2017.</p> <p>In June 2009, US EPA published final rules for Marine Compression Ignition Engines greater than 30 liters per cylinder (large main propulsion engines). Tier 2 applies to new engines commencing in 2011 and will require engine component and timing changes to be achieved. Tier 3 applies to new engines after 2016 and will require after-treatment systems to achieve the required emission reduction.</p> <p>In addition the EPA rules regulate the fuel used in North America (an Emission Control Area) for these engines to 10000 ppm (1.0%) sulphur in August 2012 and 1000 ppm (0.1%) sulphur starting January 2015. The EPA excluded Great Lakes steamships from the fuel sulfur requirements, which includes CN's four steamships. Overall, these regulations expose CN to greater financial cost exposure to meeting the emission standards once they take effect.</p> | <p>To address this risk, we will be ensuring that any diesel engine replaced in the CN vessel fleet will meet these marine diesel engine emission regulations. We are currently working collaboratively with the US EPA on a project to replace the main propulsion engine on our largest shipping motor vessel. The engines selected will meet the Tier 2 emission performance standards before they become effective in 2011. Through these initiatives, we expect to be able to meet EPA requirements in advance while enabling greater carbon efficiencies.</p>                                                    |
| <p><b>Proposed Canadian Federal Locomotive Emission Standards</b></p> <p>Once our Memorandum of Understanding on locomotive emissions standards with the RAC expires in 2010, the Canadian government has expressed its intention to put in place emission standards similar to those established under the US EPA. These standards could increase our exposure to technological and compliance risk within Canada.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>As a company that operates a cross border freight transportation and logistics service, we are already working aggressively to meet the EPA emission standards for all our locomotives. Through our role as the Chair of the RAC MOU Management Committee we will continue to engage with the Canadian regulatory authorities to monitor developments respecting future emission standards.</p>                                                                                                                                                                                                                     |
| <p><b>Developments of GHG Emission Standards for Heavy Duty Vehicles</b></p> <p>Both the US and Canadian governments are currently working on the development of GHG emission standards for heavy duty vehicles. These emission standards could indirectly expose CN to cost increases on intermodal trucks, passed down from manufacturers.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>The potential increased costs are not expected to present a material risk to the business, and are integrated as part of normal business operating costs. Furthermore, as part of our commitment to enhance fuel and carbon efficiency throughout our operations, CN already provides incentives to our truck owner-operators to purchase or upgrade to more fuel efficient trucks. Over time, it is expected that investments in more fuel efficient heavy duty vehicles will be offset by the potential cost savings to be realized from greater fuel efficiency.</p>                                             |
| <p><b>GHG Emission Standards for Light-Duty Vehicles</b></p> <p>Over the past year, both the US and Canada have passed GHG emissions standards on light duty vehicles. These emission standards could indirectly expose CN to cost increases passed down from light-duty vehicle manufacturers, impacting the Company's On Company Service (OCS) vehicle fleet</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>The potential increased costs are not expected to present a material risk to the business, and are integrated as part of the normal business operating costs. CN already has in place a vehicle acquisition strategy with an objective of acquiring 400 new vehicles a year to update the OCS fleet over the next five years. Through this strategy, the Company expects to realize long-term savings from the purchase of higher efficiency vehicles while meeting the new USEPA emission standards. We have also purchased a number of hybrid vehicles and are testing them for application at CN operations.</p> |

# Risks and Opportunities

## 3. Regulatory Risks (cont.)

3.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

### Risk / Impacts

### Risk Management

#### AIR POLLUTION LIMITS (CONT.)

##### Proposed Canadian Emission Standards for Rail Yards

Selective cities within Canada, including Vancouver and Toronto, are moving towards developing fuel emission limits on rail yards. While still in development, emission limits on the Company's rail yard operations could expose CN to greater GHG reporting compliance risks.

Over the past year, CN has initiated a comprehensive carbon inventory assessment to effectively monitor and track the GHG emissions associated with all aspects of our business, including our rail yards. We have also established reduction initiatives tailored specifically to our rail yards (see Performance section 9.7) as part of a company-wide energy reduction strategy. Through these initiatives, the Company expects to be prepared to address any future emission standards.

#### FUEL / ENERGY TAXES AND REGULATIONS

##### Renewable Fuel Content Federal Policy and Provincial Regulations

There has been a national movement throughout Canada to increase the percentage of renewable content in diesel fuel at both the federal and provincial levels of government. Renewable content in diesel fuel could expose the Company to potential fuel price increases when renewable content is in limited supply. Furthermore, where renewable fuel content exceeds a 10% blend our manufacturers have indicated that locomotive engine functioning could be comprised.

While CN is currently excluded from the B.C. renewable fuel content regulations, we are not exempt from the Canadian federal regulations. As such, we are working with our engine suppliers to see what type of additives would be needed if renewable fuel blends exceed the 10% threshold.

##### Fuel Carbon Tax

In British Columbia, the Carbon Tax Act - Bill 37, has been designed to tax GHGs emitted from the use of virtually all fossil fuels, including diesel. In 2008, the taxation rate was established at \$10 per tonne, and is expected to increase by \$5 per year for the next four years. In 2009 the taxation rate increased to \$15 per tonne. Our customers shipping freight within the Province of B.C. have assumed the direct impact of this tax and are now obligated to pay a carbon surcharge to cover the carbon taxation costs for freight shipped within the Province. In addition, over the past year, there have been indications through the various climate change bills that the U.S. may also move towards a carbon tax on fuel.

For CN, the introduction of the tax in B.C. has prompted greater attention to the accuracy of our fuel data management system. Over the next three years, we will be enhancing our fuel management reconciliation system in order to gain a better understanding of fuel inventory variations. We are investing up to CDN\$ 20 Million in the installation of new meters at fuel reception points, fuel tanks and locomotive delivery areas. Through this initiative, the Company expects to be well placed in responding to carbon taxes placed on fuel.

#### EMISSION REPORTING OBLIGATIONS

##### EU Aviation Directive

The inclusion of aviation within the EU ETS took effect in 2009, and applies to all flights to, from, and within the EU starting in 2012. Since CN operates a corporate aircraft that occasionally flies into the EU, we have been targeted for inclusion in the new Directive, which could expose the Company to additional compliance costs. In order to determine whether we meet the criteria set out in the Directive, we are in the process of compiling and submitting our 2004 to 2006 emission data for our corporate aircraft to the respective administrative authority.

Once reviewed, we will be in a better position to establish our approach in responding to the Directive. At the same time, we will be closely monitoring consultations and dialogues as we await finalization of the rules and requirements of the Directive during 2010.

# Risks and Opportunities

## 3. Regulatory Risks (cont.)

3.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

### Risk / Impacts

### Risk Management

#### CAP AND TRADE SCHEMES

##### Western Climate Initiative (WCI)

The WCI is a collaborative effort between seven US States (Arizona, California, New Mexico, Oregon, Washington, and Utah) and four Canadian provinces (British Columbia, Ontario, Manitoba and Quebec) to reduce GHG emissions to 15% below 2005 levels by 2020.

The main focus of the WCI is its cap and trade system, which, in the absence of a North American scheme, is expected to begin in 2012. The WCI system could expose CN and our customers to increased compliance costs associated with GHG emission reporting and reduction measures. At this time, the system is still in a developmental phase and there remains some uncertainty on how it will be implemented amongst the partnering states.

CN will continue to monitor these policy developments through active engagement with the WCI member states and provinces. Earlier this year, CN, alongside the WCI and the Province of BC, co-hosted a session to bring business and government leaders across North America together to initiate a dialogue on the treatment of transportation industry GHG emissions within the WCI.

CN believes that involvement in such sessions represents an opportunity for business leaders to identify practical solutions and contribute to, or support, future policy development in a manner that will foster economic growth, while ensuring reductions in GHG emissions.

In addition, CN continues to engage with our customers to not only demonstrate the carbon benefits of modal shift from truck to rail, but also the carbon benefits of using efficient freight trucks.

#### UNCERTAINTY SURROUNDING NEW REGULATION

##### US Climate Change Bills

On June 26, 2009, the U.S. House of Representatives passed the American Clean Energy and Security Act of 2009, sponsored by Representatives Henry Waxman and Edward Markey. This most recent Waxman-Markey climate change bill, as it is commonly referred to, is a comprehensive energy and climate bill containing provisions related to energy efficiency and renewable electricity standards, investment in green and clean energy, and a cap-and-trade program to control emissions from major sources.

In its current form, the Waxman Markey bill could expose CN operations to compliance and financial costs. From a compliance perspective, CN could be exposed to: national emission reduction goals and targets for the transportation sector; new emission standards for non-road vehicles and engines, emission reporting obligations for CN's trucking fleet; and compliance with new energy targets for commercial buildings.

The Bill could adversely affect our customers by placing advantages on US companies, through subsidies, border adjustments and renewable energy standards. These types of advantages could result in additional costs on Canadian companies that export their products into the US.

The Company has maintained a strong commitment to promoting innovative paths towards carbon efficiencies in our rail, non-rail and facility operations. These initiatives are described in section 9.7 Emission Reduction Activities. Furthermore, CN is currently undertaking a detailed carbon inventory assessment of our entire operations, which should enable us to realize additional energy reduction opportunities as well as provide the basis for potential regulatory reporting requirements.

We are also working with our customer to enhance efficiencies throughout the transport and logistics supply chain. Our focus on customers is already being well-recognized. In 2009, CN was awarded the prestigious Innovator of the Year award by Wal-Mart Canada, recognizing the Company's ability to deliver 'truck like' service, which allowed CN and Wal-Mart to continue to benefit from both the cost savings and positive environmental impact.

These types of initiatives, coupled with our intermodal shift protocol that enables our customers to gain carbon credits from shifting freight from truck to rail, could provide competitive advantage opportunities for our customers.

# Risks and Opportunities

## 3. Regulatory Risks (cont.)

| Risk / Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Risk Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAP AND TRADE SCHEMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>Through our external analysis on regulatory regimes, we have continued to note the growing number of climate change policies being developed at the state, provincial and regional levels. Many of these initiatives and requirements remain in various stages of development, and the implications are still unclear. Meanwhile, at the federal level, recent developments indicate that climate change policies within Canada will most likely be aligned with those of the US.</p> <p>As a company that deals in multiple jurisdictions, a fragmented approach could present additional compliance costs to CN and our customers. A more unified coordinated approach would be highly favourable to a company such as CN with cross border and multi-jurisdictional operations, as well as for our customers interested in capitalizing on the carbon credit opportunities associated with freight modal shift solutions.</p> | <p>We continue to monitor US and Canadian regulatory updates to clearly understand the potential implications on our business. We also engage with various levels of governments to position the carbon benefits of rail freight transportation. In 2008, we obtained approval for the first ever ‘Quantification Protocol for Freight Modal Shifting’ by the Alberta Government. In 2009, the protocol was further enhanced to meet a greater North American application. The revised protocol has been well-received and recently adopted in the province of British Columbia and currently in discussion with the Western Climate Initiative.</p> |

3.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

# Risks and Opportunities

## 4. Physical Risks

4.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

At CN, we recognize that climate change, including the impacts of global warming, could increase the frequency of adverse weather events. Severe weather and natural disasters, such as extreme cold and extreme heat, flooding, drought, and hurricanes, can disrupt operations and service for the railroad, affecting the performance of locomotives, rolling stock, and the physical plant, as well as disrupting operations for the Company's customers. The following diagram and section provides an overview of significant climate change related physical risks that are impacting, or have the potential to impact CN's operations, and the actions taken to manage these risks.

| Frequency / Probability | High               |     |        |        |
|-------------------------|--------------------|-----|--------|--------|
|                         | Medium             | 5   | 2<br>3 | 1<br>4 |
|                         | Low                | 9   | 6      | 7<br>8 |
|                         |                    | Low | Medium | High   |
|                         | Severity of Impact |     |        |        |

|  |                                                                               |
|--|-------------------------------------------------------------------------------|
|  | High significance - disclosure and alignment with business strategy           |
|  | Medium-high significance - disclosure                                         |
|  | Medium low significance, disclosure depends on risk perception of the Company |
|  | Not significant, disclosure not required                                      |

### Changes in Frequency of Weather Events

1. Network Infrastructure / Productivity
2. Asset Vulnerability
3. Insurance Cost Increases

### Changes in Precipitation Patterns

4. Track operating efficiency

### Induced Changes in Supply Chain and / or Customers

5. Risk of energy shortages and cost increases
6. Raw materials / equipment supplies

### Induced Changes in Natural Resources

7. Commodity market changes
8. Network efficiency risks from high sea levels
9. Declining navigational waters

# Risks and Opportunities

## 4. Physical Risks (cont.)

4.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

### Risk / Impacts

### Risk Management

#### CHANGES IN FREQUENCY OF EXTREME WEATHER EVENTS

##### Network Infrastructure Risks

Extreme temperatures, especially hot and cold temperatures, can present a significant risk to our network infrastructure. For instance, if a rail heats more than 33oC above its neutral temperature, rail misalignments and track buckling are possible from thermal rail expansions. On the other hand, extreme cold temperatures can also present potential risks from track freezing, which result in greater frequencies of broken rails, frozen switches, and high rates of wheel replacements.

Extreme cold temperatures are particularly frequent in the northern Canada regions, while extreme hot temperatures are particularly common in the southern parts of the U.S as well as parts of the Canadian prairies. In such instances, there have been cases when CN has had to shut down significant portions of the network, exposing the Company to operational and financial risks. In January 2009, we experienced record cold temperatures across Canada and North-eastern United States, which impacted the reliability and efficiency of our locomotives and other equipment.

Furthermore, in 2009, we experience wildfire episodes from extreme hot and dry conditions in British Columbia, which affected maintenance activities on our lines running north from Vancouver.

CN has put in place a number of programs to respond to such extreme weather events. For instance, summer and winter readiness plans have been established, which include procedures for train speed, train length and weight, inspections, rail replacements, de-stressing, and fire-prevention and response. Furthermore, our engineering team has initiated a forecasting model based on historical trend data of temperature fluctuations and extremes to detect geographical locations on our network that have a higher risk of being impacted by extreme temperatures. Based on the results of the model, our field teams adjust their work activities to minimize, and where possible, prevent network disruptions.

Our engineering department ensures the productivity and fluidity of the network through continued testing of our tracks, additions of ultrasonic rail flaw detectors, increased sightline and surface inspections, and computerized track inspection logs. We also installed weather stations on all switch warmers on our main line between Winnipeg and Montreal to monitor outside temperatures and humidity. When conditions for snow or freezing rain are predicted, we place cold weather slow orders of 40 mph on the track.

Finally, as part of our normal capital program, we have increased our investments to improve train productivity through the use of locomotives equipped with 'distributed power', allowing the Company to run longer, more efficient and heavier trains in extreme cold weather conditions. In fact, by the end of 2010 we expect to have roughly 304 locomotives equipped with distributed power technology. Distributed power significantly reduces the time requirement to charge a train's air brake system, a major benefit in cold weather conditions that can slow the rate at which air brakes are charged.

##### Asset Vulnerability Risks

Our sites and networks are located within the US Tornado Belt, making us vulnerable to increases in tornado occurrences and intensity. This is particularly the case throughout the Midwest and the New Orleans area. For instance, during hurricane Katrina, we were subjected to disruptions in our operations. Not only were we unable to access our fuelling stations, but we also experienced damage to infrastructure and property. In 2009, we experienced a record number of tornadoes in Ontario as well as severe wind events within Alberta. Meanwhile, in the US, the Company was not exposed to any hurricanes occurrences. As a result of these events in Canada, the Company's track infrastructure was impacted.

We have established processes and procedures that enable us to be amongst the fastest to recover from emergency weather situations. On an ongoing basis, our teams review and update our emergency response planning procedures to address extreme weather patterns, including hurricanes. This has included the redesign of fuelling station locations to ensure ready access during emergency situations as well as providing the necessary back-up IT systems. Furthermore, we have ensured that CN's field forces have ready access to a 24-hour weather forecasting and advisory service using the Smartrad weather warning service, which enables our team to effectively prepare for emergency situations.

##### Insurance Cost Increase Risks

As the frequency and severity of extreme weather events increase, and insurers are forced to contend with greater uncertainty, insurance premiums in general could rise. Year over year, CN expends considerable costs towards the maintenance of its infrastructure to protect the company assets from wear and tear that could be attributable to changes in climate.

The Company conducts detailed assessments of our asset and infrastructure risk through our business continuity. Once completed, we implement various programs to prevent and respond to emergency situations. The Company is strongly committed to operating an efficient, low carbon intensive railroad, which will simultaneously contribute to the broader efforts of managing climate change.

# Risks and Opportunities

## 4. Physical Risks (cont.)

4.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

| Risk / Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Risk Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CHANGES IN PRECIPITATION PATTERNS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p><b>Track Operating Efficiency Risks</b></p> <p>Over the past years, the Company has experienced increases in intense precipitation, leading to more pronounced episodes of flooding, landslides in unstable mountainous regions, and mud slides. Such episodes can be disruptive to our operations. Flooding can be damaging to rail bed support structures and cause overflows onto tracks. Landslides and mud slides can be especially damaging to our rail tracks.</p> <p>In previous years, severe flooding in Eastern Canada, as well as in the Chicago Illinois area, was particularly disruptive to our infrastructure resulting in service disruptions. Meanwhile, extensive winter rain with accompanying mud slides led to the closure of some of our networks in the Western Canadian region.</p> | <p>As part of our risk management program, we have well-established winter, summer and spring operating plans. Through these plans, our engineering department conducts ongoing rail inspections to check for obstructed waterways, water pooling near roadbeds, evidence of roadbed or bank erosion, unusually high and/or turbulent water adjacent to the track, and changes in normal draining patterns. Extra track patrols are initiated when high-risk conditions are detected, and senior geotechnical engineers are dispatched for problem resolution.</p> <p>We have also installed natural hazard warning systems to detect and report on slides or track hazards in known sensitive areas, such as in the corridors of British Columbia. For example, we constructed slide fences that activate alarms if rock or debris fall on the track, warning approaching trains of a hazard.</p> <p>We also built tip-over posts to detect larger movement of debris such as those from mud slides.</p> |
| INDUCED CHANGES IN SUPPLY CHAIN AND / OR CUSTOMERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p><b>Exposure to Risks of Energy Shortages and Cost Increases</b></p> <p>Supply disruptions and biodiesel shortages due to changing weather pattern could make the Company susceptible to the volatility of fuel prices. Rising fuel prices could adversely affect the Company's expenses</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>To address fuel cost increases, CN has implemented a fuel surcharge program with the view of offsetting the impact of rising fuel prices.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><b>Raw Materials / Equipment Supply Risks</b></p> <p>The Company operates in a capital-intensive industry where the complexity of rail equipment limits the number of suppliers available. Intense weather events resulting from climate change could adversely disrupt the supply markets in terms of production and cost increases, thereby interfering with the Company's ability to procure the necessary equipment.</p>                                                                                                                                                                                                                                                                                                                                                                                 | <p>To manage its supplier risk, the Company ensures that more than one source of supply for a key product or services, where feasible, is available.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

# Risks and Opportunities

## 4. Physical Risks (cont.)

| Risk / Impacts                               | Risk Management |
|----------------------------------------------|-----------------|
| INDUCED CHANGES IN NATURAL RESOURCES (CONT.) |                 |

4.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

### Risk of Commodity Market Changes from Warming Temperatures

The International Panel on Climate Change (IPCC) projections suggest that over the next century further warming will occur, which could impact our infrastructure as well as adversely impact our business in terms of the types and volumes of products that we currently ship. For example, in 2002-2003, severe drought conditions in western Canada significantly reduced the quantity and quality of the grain crop and agricultural products, which impacted CN's volumes and associated revenues.

Since then, warming trends have had a general impact on our business. For example, an increase in precipitation during the early spring season led to significant flooding in Illinois and Iowa. The flooding delayed spring planting resulting in a later crop harvest.

The Company maintains a diversified portfolio of commodities and customers. This, along with a strong transportation service offering, can help to mitigate any potential negative impact of climate change on our overall revenue performance. We continue to monitor these trends and the impact on our business and product shipments.

### Risk of Network Efficiencies

The IPCC projections suggest that average global sea level is expected to rise with considerable regional variations. Based on studies by Natural Resources Canada, higher mean sea levels, coupled with high tides and storm surges could severely impact transportation infrastructure, resulting in service disruptions. CN has a number of port locations that could be vulnerable to rising sea levels, including our operations at Halifax, Prince Rupert, Vancouver and New Orleans.

Furthermore, rising sea levels could result in more frequent flooding of railroads near estuaries during high tides and storms, which could disrupt operations and service. We do not expect sea level rises to have an immediate impact on our business, as these risks are more likely to occur well into the future.

At the same time however, we have well-developed spring and summer readiness plans, which include established procedures for flooding and storm activity. We continue to monitor sea level rising trends and remain committed to ensuring that network updates take these risks into consideration.

### Declining Navigational Waters Resulting in Competitive Advantages against Barge Competition

Warming temperatures could result in significant declines in navigational waters, particularly along the St. Lawrence-Great Lakes Seaway, Gulf Coast, and the Mississippi River. Navigational interruptions from ice, floods, and droughts could adversely impact CN's shipping vessel traffic and rates. In 2009, the Great Lakes experienced lower than normal temperatures averaging the 6th wettest summer and 12th coldest summer in 62 years. Notwithstanding, vessel competition and rates remained constant, with no direct impact on our business.

CN is well-placed to address reduced vessel traffic volumes that may occur as a result of changing climate given our ability to provide both locomotive and truck freight transport alternative services. Doing so, has not only enabled us to offset our own shipping vessel services but also gain a competitive advantage when shipping is not possible for our competitors.

# Risks and Opportunities

## 5. Other Risks

5.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

In the normal course of business, CN is exposed to various other climate change risks, which are identified through the Company's annual risk management process. Through this process, CN's Corporate Environment Department plays an integral role in identifying other climate change risks based on the results of operational and maintenance programs, as well as ongoing environmental audits. Figure 3 depicts the other climate change risks.

|                         |                    |     |             |        |
|-------------------------|--------------------|-----|-------------|--------|
| Frequency / Probability | High               |     |             |        |
|                         | Medium             |     | 2<br>5      | 1<br>4 |
|                         | Low                |     | 6<br>7<br>3 |        |
|                         |                    | Low | Medium      | High   |
|                         | Severity of Impact |     |             |        |

|  |                                                                               |
|--|-------------------------------------------------------------------------------|
|  | High significance - disclosure and alignment with business strategy           |
|  | Medium-high significance - disclosure                                         |
|  | Medium low significance, disclosure depends on risk perception of the Company |
|  | Not significant, disclosure not required                                      |

### Market Risk

1. Changing customer demands
2. Economic conditions
3. Credit risk
4. Competition from other carriers

### Changes in the availability and costs of goods and services

5. Dependence on diesel fuel as an energy source

### Reputational Risks

6. Reputation associated with the shipment of carbon intensive goods and services

### Security Risks

7. Loss or damage to assets associated with carbon intensive goods and services

# Risks and Opportunities

## 5. Other Risks (cont.)

5.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

### Risk / Impacts

### Risk Management

#### MARKET RISKS

##### Competition from Other Carriers

Given the advantage that rail freight provides over other modes of transport, the Company could face competition from rail carriers that effectively market and differentiate themselves as the lowest carbon freight service offering. Competition from other railroad carriers could impact volumes, revenues and profit margins.

In order to address this risk, we have been actively working with our customers to not only demonstrate the carbon benefits of rail freight, but to also differentiate ourselves in the marketplace. Our efforts have been well-recognized, and were recently documented in the CIBC World Markets Investors Analyst Report: Carbon and The Rails, which recognized CN as the most fuel-efficient rail operation with an industry-low operating ratio. Please see attached document. Our ability to maintain this industry standing is the result of various company-wide initiatives, from the way we operate the railroad through 'Precision Railroading' to the adoption of a number of programs that advance railroad efficiency and promote emission reduction. With 'Precision Railroading' in particular, fewer railcars and locomotives are needed to ship the same amount of freight in a tight, effective and efficient operation. 'Precision Railroading' means greater reliability for customers and less impact on the environment.

To further communicate the carbon benefits of rail to our customers, we introduced a GHG emissions calculator in 2008, which we upgraded in 2009 to estimate the carbon emissions for shipments using a combination of vessel, rail and truck. As such, shippers can apply the tool for containers moving internationally from Asia to North American destinations along CN's network, or domestic shipments using a combination of rail and truck or a single mode of transportation. Please refer to [Http://www.cn.ca/environment-rail-locomotive-greenhouse-gas-calculator.htm](http://www.cn.ca/environment-rail-locomotive-greenhouse-gas-calculator.htm). Furthermore, we will be working through the Lake Carriers Association to develop an industry approach to measure the fuel / carbon efficiency associated with our shipping freight vessel service.

As a result of these initiatives, CN is well placed amongst its peers to offer the most carbon efficient and innovative transport alternative. We continue to monitor our competitors with great interest and are always keen to learn from the successful application of technologies that could be applied to CN operations.

##### Changing Customer Demands

With growing awareness and concern for climate change, consumer demands for low carbon and more responsible products are growing throughout Europe and North America. With these demands have come increasing pressures on our customers to demonstrate the carbon impacts of their products, including aspects of their distribution networks. In fact, some large multinational retailers and manufacturers are already starting to pre-select their suppliers based on environmental criteria that include carbon criteria within the distribution network. Furthermore, US states, in particular California, have put in place low carbon fuel standards (LCFS) which could indirectly impact oil and gas companies from a public relations standpoint.

Like other railroads, CN is susceptible to changes in market pressures on the industries and geographic areas that produce and consume the freight we transport or the supplies required for our operation. Any such changes in demand, including a focus on low carbon solutions, could adversely affect the volumes. For example, in 2009, we experienced decreased revenues on our forest products due to weaker demands.

We are well positioned to address this risk given our diversified portfolio of business, both in terms of the commodities that we ship and the customers that we service, as well as our broad geographic scope. Additionally, we continue to demonstrate to customers the carbon benefits of rail freight transportation. We have also increased our participation in markets driven by the climate change agenda, including: ethanol; recycled and new forest products such as wood pellets; wood pulp; wind turbines; and biodiesel. We remain committed to meeting and exceeding our customer expectations and will continue to monitor customer trends. (See Section 6: Other Opportunities).

# Risks and Opportunities

## 5. Other Risks (cont.)

5.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

### Risk / Impacts

### Risk Management

#### MARKET RISKS (CONT.)

##### Economic Conditions

The Company, like other railroads, is susceptible to changes in the economic activity of the industries and geographic areas that produce and consume the freight it transports or the supplies it requires to operate. As such, negative change in North America and global economic conditions, resulting in a prolonged recession or more severe economic or industrial restructuring, could have a material adverse effect on the volume of rail shipments carried by the Company. Within the context of declining economic conditions, we have identified two risks to which the company could be exposed. First, the Company may be forced to reduce capital investment commitments that support carbon efficiency, including locomotive acquisitions and upgrades. Second, less traffic could impact our fuel efficiency ratios at times when we are forced to run our locomotives at sub-optimal levels.

As a result of the recession in the North American economy and the contraction of the global economy in 2009, most of the Company's commodity groups were significantly impacted. The Company made the necessary changes to its operations to reflect the reduced freight volumes and imposed certain cost-reduction measures. The Company's focus during volatile times is to continue to pursue its long-term business plan, maintain a high level of service to customers, operate safely and efficiently, and meet short-term and long-term financial commitments. In 2010, CN plans to invest CDN\$ 1 billion towards track infrastructure to continue to improve the quality, integrity and safety of our railway, which will in turn improve the productivity and fluidity of the network.

Furthermore, to address concerns regarding fuel efficiency during low traffic periods, we have established a consistent operating plan regardless of business conditions, to effectively respond to lower volumes in the current environment. In addition, we leveraged the expertise of a cross-functional team within CN to apply the web-based Horsepower Per Ton Analyzer (HPTA) to optimize fuel consumption while remaining on schedule. Implemented in 2009, the HPTA enabled the Company to achieve a month over month increase of 4.1 % in fuel productivity, representing millions of dollars in annualized savings.

##### Credit Risks

Market changes resulting from climate change weather events could impact the businesses of our customers, which could in turn expose the Company to credit risk. We have not identified any significant concentrations of credit risk, but remain vigilant of our exposure.

To manage its credit risk, the Company's focus is on keeping the average daily sales outstanding within an acceptable range, and working with customers to ensure timely payments, and in certain cases, requiring financial security, including letters of credit.

#### CHANGES IN THE AVAILABILITY AND COSTS OF GOODS AND SERVICES

##### Dependence on Diesel Fuel as an Energy Source

The Company's operations, and in particular the running of our locomotives, are currently dependent on the availability of diesel. Declining oil reserves, which may impact the available supply of diesel fuel, could pose a risk on the Company's ability to operate.

While we do not consider this risk to materialize in the short- to medium-term, we are monitoring developments on alternative fuel sources with interest. For instance, the Company participates on an ongoing basis with partners in industry, government and academia, to support and monitor research initiatives towards cleaner alternative energy sources, including electrification, fuel cell power natural gas, and bio-diesel fuels. Research in these areas, however, has continued to present a number of challenges for the industry. For example, bio-diesel fuel usage is not always conducive to the colder winter periods experienced in Canada, fuel cell power is not yet technically feasible, and electrification has proved costly for North American applications.

# Risks and Opportunities

## 5. Other Risks (cont.)

5.1 The current and / or anticipated risks, affect on business and value chain, financial implications, actions to manage risks.

| Risk / Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Risk Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REPUTATIONAL RISKS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>Reputation Associated with the Shipment of Carbon Intensive Goods</b></p> <p>With increasing public concern for the environment, the Company may be exposed to reputational risks from stakeholders that hold the Company accountable for carbon intensive products that we may transport.</p>                                                                                                                                                                                                                                                                                                               | <p>As a rail common carrier, we have a duty to carry all freight, as long as there are no reasonable grounds to refuse to do so. Therefore, railroads cannot generally refuse to transport a commodity based on its specific characteristics. The Company is committed to being a good corporate citizen, and providing carbon efficient transport and logistics services to our customers in a way that ensures safety and respect for the environment.</p> <p>We are continuing our efforts to demonstrate to our customers the environmental benefits of rail versus other modes of transport.</p> |
| SECURITY RISK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>Loss or Damage of Assets Associated with the Shipment of Carbon Intensive Goods</b></p> <p>The shipment of carbon intensive goods could make the Company and its suppliers vulnerable to vandalism and theft from various stakeholders, including activists. Furthermore, exposure to depleting natural resources as a result of climate change could result in price increases for carbon intensive commodities, including oil, metals, and chemicals. The increase of commodity prices could in turn make such products vulnerable to theft, impacting our business operations, reputation and assets.</p> | <p>CN's Security Division has sophisticated systems and networks that enable the Company to be constantly made aware of trends and activities on a daily basis that could pose a security threat. In the event of a security risk, the Division has in place various policies, processes and procedures to undertake the necessary response and in doing so, counteract a threat. Over the past years, the Company has not been exposed to threats related to climate change events, but continues to remain vigilant of such trends.</p>                                                             |

# Risks and Opportunities

## 6. Regulatory Opportunities

6.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

Regulatory opportunities related to climate change are typically identified through our work with government authorities, various stakeholders, and third-party reviews. Based on our review, CN has identified the following regulatory opportunities.

| Frequency / Probability | High               |     | <div>6</div> <div>2</div> <div>7</div> <div>3</div> <div>10</div> <div>9</div> <div>13</div> <div>12</div> |                           |
|-------------------------|--------------------|-----|------------------------------------------------------------------------------------------------------------|---------------------------|
|                         | Medium             |     | <div>11</div> <div>4</div> <div>8</div>                                                                    | <div>1</div> <div>5</div> |
|                         | Low                |     |                                                                                                            |                           |
|                         |                    | Low | Medium                                                                                                     | High                      |
|                         | Severity of Impact |     |                                                                                                            |                           |

|  |                                                                               |
|--|-------------------------------------------------------------------------------|
|  | High significance - disclosure and alignment with business strategy           |
|  | Medium-high significance - disclosure                                         |
|  | Medium low significance, disclosure depends on risk perception of the Company |
|  | Not significant, disclosure not required                                      |

### Voluntary Agreements

1. Canadian MOU on rail emissions and the US Smart Way Agreement

### Cap and Trade Schemes

2. Alberta Climate Change and Emissions Act
3. British Columbia GHG Act
4. Quebec Bill 42
5. Western Climate Initiative (WCI)

### Air Pollution Limits

6. USEPA Off-road Emission Standards

### Fuel Energy Taxes

7. B.C. Carbon Tax Act – Bill 37
8. Renewable Fuel Content

### Indirect Exposure through Customers and Suppliers

9. Walmart Sustainability Questionnaire
10. Carbon Disclosure Project
11. Climate Bill
12. Low Carbon fuel Standard
13. Government policies supporting rail freight

# Risks and Opportunities

## 6. Regulatory Opportunities

### Opportunities / Impacts

### Opportunities Management

#### VOLUNTARY AGREEMENTS

##### Canadian Memorandum of Understanding (MOU) on Rail Emissions and US SmartWay Agreement

As part of our ongoing voluntary commitments under the Canadian MOU and the US SmartWay Agreement, opportunities exist to realize long-term carbon efficiencies through our locomotive fleet management strategy. Through this strategy we have been able to generate significant fuel savings.

To date, the fuel consumed per revenue ton mile is approximately 70 percent of that in 1991. A significant portion of these savings has been driven by the acquisition of a large number of new high horsepower, fuel-efficient locomotives. Since the Company's privatization in 1995, we have acquired 660 new locomotives under our regular fleet renewal program. In 2009, CN received 29 new locomotives.

Other contributing factors include fuel efficiency measures, such as improved train handling, the inherent improvements in diesel engine thermal efficiency, reduced 'parasitic' losses in the locomotive auxiliaries, high horse power capacities allowing bigger trains, train operation with Dynamic Brakes, and increasingly, the recent train consolidations facilitated by 'Distributed Power'. With the acquisition of more fuel-efficient locomotives in our fleet, we have been able to realize up to 15-20 percent fuel efficiency than older models.

Recent estimates of the potential savings from the U.S. SmartWay Agreement in the rail industry are projected at 150 million barrels of oil per year – an equivalent saving of \$U.S. 11.25 billion (based on estimations of U.S. \$75 a barrel). We look forward to continuing to enhance our fleet and operations to leverage the operational efficiencies and savings associated with the MOU and SmartWay Agreement.

#### AIR POLLUTION LIMITS

##### USEPA Off-Road Emission Standards

The recent USEPA Tier 4 locomotive emission standard updates will require even more advanced technologies for off-road engines, which could present an important opportunity for the Company, and indeed the industry, to work together with our manufacturers in the development of cleaner next generation engines for locomotives as well as shipping vessels.

In order to maximize the opportunities, the Company actively participates in a number of government funded research and development projects related to our locomotives. For example, over the past few years, CN participated in the Freight Technology Demonstration Fund provided by Transport Canada to fund the take-up of technologies and best practices that reduce GHG emissions from freight transport. As part of the project, CN invested in research into the effectiveness of top of rail lubrication; the results of which demonstrated positive savings. Currently, 60 percent of our locomotives are equipped with lubrication systems, which enable us to create greater fuel efficiencies from the reduction of surface friction between our rail and freight cars.

We have also worked on studies to reduce engine idling as part of Transport Canada's Freight Sustainability Demonstration Program. Please see attached study. In addition, CN has partnered with GE and the Sustainable Development Technology of Canada in the development of the next generation of locomotive engines. Through this partnership, CN will invest over \$CDN 1 Million of 'in kind' labour and one locomotive for a 3 year period (2009, 2010, and 2011). We have also been in consultation with Rail Power to understand GENSET locomotives and the additional advantages for fuel savings. On a more general level, we continue to monitor and look for new research initiatives for new engine technologies, including hydrogen injection, GENSET, and alternative fuels.

In terms of our Great Lakes fleet, we have initiated a project with the US EPA to replace the engines of our largest motor vessels enabling us to increase efficiency while at the same time minimizing emissions. We expect the project to be completed within the next year. In addition, we are currently undertaking a feasibility study to determine the cost of converting our four (4) steam ships to motor vehicles, which is also expected to enable us to gain greater fuel efficiency and further reduce emissions

6.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

# Risks and Opportunities

## 6. Regulatory Opportunities (cont.)

6.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

### Opportunities / Impacts

### Opportunities Management

#### CAP AND TRADE SCHEMES

##### Alberta Climate Change and Emissions Act

In July 2007, Alberta became the first jurisdiction in North America to regulate GHGs under the Specified Gas Emitters Regulation, and establish a project offset compliance mechanism.

In order to leverage the opportunities under the offset program, CN worked with the Alberta government to develop a first ever carbon credit quantification protocol for switching truck freight to rail. Between 2008 and 2009, we enhanced the protocol in collaboration with our customers to expand its application and re-submitted the updated protocol to the province of Alberta.

The modal shift protocol has presented an important opportunity for CN to improve the carbon footprint of our customers, while increasing revenues through modal shift. We are committed to advancing the application of the modal shift protocol throughout North America, which is particularly important since the true carbon benefits of rail freight are best achieved over long haul transportation. Despite the current uncertainty in North American climate change policy, we remain cautiously optimistic regarding the opportunities.

We have also been exploring opportunities to monetize accumulated carbon credits from the carbon reductions achieved through the replacement of our older locomotives, ship vessels and trucks, with more fuel-efficient models (For more information refer to section 22.5 and 22.6).

##### British Columbia Greenhouse Gas Reduction (Cap and Trade) Act

Following the province of Alberta, British Columbia (B.C) is the only other North American jurisdiction that has implemented a cap and trade system.

The B.C. system presents an opportunity for CN to position our modal shift protocol enabling our customers to benefit from the carbon credits associated with shifting truck freight traffic to rail. In fact, the Pacific Carbon Trust (the organization in charge of offsets in B.C.) recently approved the modal shift protocol.

Furthermore, CN has already started to track efficiency improvements and in doing so calculate the carbon credit opportunities associated with the acquisition and upgrade of our locomotive, truck and vessel fleet.

We will be banking these credits for future use once cap and trade systems within North American reach a higher level of maturity.

##### Quebec Bill 42

In 2009, the Quebec provincial legislature assented Bill 42 - An Act to amend the Environment Quality Act and other legislative provisions in relation to climate change.

The Bill presents the framework within which Quebec will establish targets regarding greenhouse gas reductions and also provides for the creation of a cap and trade system for emission reductions to achieve its goals. In particular, the Bill grants offset credits for actions which avoid GHG emissions within periods to be set out by future regulations and will include credits for early reductions.

The system outlined under Bill 42 could present an opportunity to obtain carbon credits from the efficiency gains made within our operations. CN has already started to track these efficiency improvements and in doing so calculate the carbon credit opportunities associated with the acquisition and upgrade of our locomotive, truck and vessel fleet.

We will be banking these credits for future use once a regional cap and trade system is established. At that time, we will have a much better understanding of the applicability and value of such credits.

# Risks and Opportunities

## 6. Regulatory Opportunities (cont.)

6.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, and actions to manage opportunities.

### Opportunities / Impacts

### Opportunities Management

#### CAP AND TRADE SCHEMES (CONT.)

##### Western Climate Initiative (WCI)

The WCI is a regional collaborative of independent jurisdictions working together to identify, evaluate and implement policies to tackle climate change at a regional level. It is comprised of the provinces of British Columbia, Manitoba, Ontario, Quebec and the States of Arizona, California, New Mexico, Oregon, Washington, and Utah, all of whom have signed on to meet GHG reduction targets by 2020 through a cap and trade system.

As already discussed, Canadian member provinces, specifically British Columbia, Ontario and Quebec, have started to put in place regulatory frameworks to position their provinces to comply with their GHG reduction obligations within the WCI. Although still at a discussion phase, we expect the cap and trade system to be implemented in the near future starting in 2012.

The cap and trade system, as presented through the WCI, could present a number of opportunities for CN. First, CN has developed a modal shift protocol that provides a method for our customers to calculate the GHG emission reductions that occur from shifting baseline truck freight traffic to rail. Customers who can demonstrate emission reductions through modal shift are eligible to generate 'offset credits' to be used to meet their own emission reduction goals, to be traded with other regulated emitters, or used to be banked for future use. The WCI is a precursor to a US cap and trade system and hence a protocol approved under WCI could be strategically placed for approval in a US-wide, and eventually North American-wide offset program.

Over the past year, CN has been engaging with the WCI and its member provinces and states to present our modal shift protocol for review and consideration. We are also actively engaging with our customers to enhance the CN customer experience, to capitalize on the opportunity to improve the carbon footprint of our customers and increase our revenues from modal shift.

As previously discussed, CN has already started to track efficiency improvements and in doing so calculate the carbon credit opportunities associated with the acquisition and upgrade of our locomotive, truck and vessel fleet. We will be banking these credits for future use once a regional cap and trade system is established under the WCI. At that time, we will have a much better understanding of the applicability and value of such credits.

#### FUEL / ENERGY TAXES AND REGULATIONS

##### British Columbia Carbon Tax Act – Bill 37

The Carbon Tax Act - Bill 37 has been designed to tax GHGs emitted from the use of virtually all fossil fuels, including diesel. In 2008, the taxation rate was \$10 per tonne, and is expected to increase by \$5 per year for the next four years. In 2009, the taxation rate increased to \$15 per tonne.

Our customers shipping freight within the Province of B.C. have assumed the direct impact of this tax and are now obligated to pay a carbon surcharge to cover the carbon taxation costs for freight shipped within the Province.

For CN, the introduction of the tax has created an opportunity for us to enhance our fuel data management system to ensure greater accuracy of our data. To this end, we have implemented a fuel data management system and increased our investment to CDN\$ 10 million by installing new meters at fuel reception points, fuel tanks, and locomotive delivery areas.

Furthermore, through our precision railroading model as well as our fuel efficiency programs, we have been able to demonstrate increased fuel efficiency resulting in reduced taxation rates, which in turn enables us to maintain and attract customers.

##### Renewable Fuel Content Federal Policy and Provincial Regulations

There has been a national movement throughout Canada and the US to increase the percentage of renewable content in diesel fuel at both the federal and provincial levels of government. As such various governments within the US and Canada have mandated the blending of biodiesel in all diesel sold.

At the same time, however, some uncertainties remain as to the net GHG benefits from alternative fuels when life-cycle effects (land-use changes, production, distribution, and use) are taken into account. Current government models suggest that using biodiesel from soy results in approximately half the GHG emissions of conventional diesel on a life-cycle basis.

# Risks and Opportunities

## 6. Regulatory Opportunities (cont.)

6.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

### Opportunities / Impacts

### Opportunities Management

#### INDIRECT EXPOSURE THROUGH CUSTOMERS AND SUPPLIERS

##### Walmart Sustainability Questionnaire

There are growing pressures to not only manage the impacts controlled by the company but also those it influences through the supply chain. Leading multinational and manufacturing companies are already setting environmental pre-selection criteria for their suppliers, which include specific criteria for carbon efficient operations. For example, in 2009, Walmart invited its suppliers to report their greenhouse gas emissions and reduction targets, as part of a broader initiative to develop a sustainability index of all Walmart products. The performance of suppliers also includes a Walmart climate change scorecard for the logistics sector.

By highlighting the benefits of measuring and reporting GHGs, Walmart is sending a clear message to its suppliers on the importance of understanding the carbon implications of their products and services and demonstrating performance. These requirements present an important opportunity for CN to enhance our reputation and in doing so gain market share by demonstrating to our customers and other stakeholders the value of rail as a low carbon rail freight transportation solution.

In order to optimize this opportunity, CN has developed and enhanced its GHG calculator that allows our customers to measure the GHGs from rail, marine and truck transportation, the first of its kind in the industry. Further, with the development of a modal shift rail freight protocol, ongoing strategic partnerships and engagement with stakeholders (suppliers, customers, and governments), as well as our own operational efficiency, we have significantly improved our visibility and reputation as a leader in fuel efficiency.

This reputation has already been well documented in the CIBC World Markets Investors Analyst 2009 Report: Carbon and The Rails (attached), which clearly differentiates CN as the most fuel-efficient rail operation with an industry-low operating ratio. In addition, our reputation as a responsible railroad was recognized for the second consecutive year in the Corporate Knights rating scheme (attached) and we continue to be represented on the Jantzi Social Index.

These achievements have not gone unnoticed. At the end of 2009, CN was selected by the Dow Jones Sustainability Index (DJSI) as ranking within the top ten sustainable companies in the logistics and transportation sector as well as being selected on the DJSI for North America.

Furthermore, earlier this year at the annual CEO Walmart event, CN was publically recognized for our low carbon and sustainability endeavours awarding CN the prestigious Innovator of the Year honour recognizing the railroad's ongoing efforts to deliver cutting edge supply chain solutions for Wal Mart Canada's evolving logistics network. The award commends CN's drive and ability to support customers' needs by leveraging its rail franchise and combining non-rail transportation solutions.

We remain committed to increasing our disclosure of carbon risks and opportunities, and to leveraging and enhancing our leadership position. Through our reputation as a responsible carbon conscious company, we expect to be able to tap into opportunities to grow our market share and revenues with existing and new customers.

##### Carbon Disclosure Project

The Carbon Disclosure Project recently came out with a supply chain questionnaire, endorsed by Walmart and other leading multinational organizations, to enable companies to capture the emissions associated with suppliers.

The pressure for some of our customers to complete supply chain questionnaires under CDP could present an opportunity for the Company to increase market share by demonstrating the value of rail as a low carbon rail freight transportation solution.

In order to optimize this opportunity CN has established a robust GHG calculator to support our customer efforts towards better disclosure of carbon emissions released throughout the supply chain. Please refer to [Http://www.cn.ca/environment-rail-locomotive-greenhouse-gas-calculator.htm](http://www.cn.ca/environment-rail-locomotive-greenhouse-gas-calculator.htm).

# Risks and Opportunities

## 6. Regulatory Opportunities (cont.)

6.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

### Opportunities / Impacts

### Opportunities Management

#### INDIRECT EXPOSURE THROUGH CUSTOMERS AND SUPPLIERS (CONT.)

##### U.S. Climate Change Bills

On June 26, 2009, the U.S. House of Representatives passed the American Clean Energy and Security Act of 2009, sponsored by Representatives Henry Waxman and Edward Markey.

The Waxman-Markey climate change bill, contains provisions related to energy efficiency and renewable electricity standards, investment in green and clean energy, and a cap-and-trade program to control emissions from major sources.

We anticipate that the Bill could bring opportunities for CN in positioning rail freight, and particularly our intermodal protocol to our customers, enabling them to gain carbon credits in the transport of their products.

During 2010, we will continue to monitor US climate change policies to clearly understand the opportunities.

##### Low Carbon Fuel Standards

In April 2009, the California Air Resources Board (ARB) approved a regulation to implement the California low carbon fuel standard (LCFS) that requires all transportation fuel sold in California to reduce its carbon intensity by at least 10% by 2020. Furthermore, several other states are now working to implement a similar standard, which could expose our customers, particularly the oil and gas industry, to technology and public relations risks.

Since the LCFSs takes into account the fuel's full life cycle (the 'well to wheels' approach), which includes transportation, CN could be well positioned to demonstrate and position low carbon intensity benefits of rail freight to our customers.

##### Government Policies Supporting Rail Freight

With increasing support for low carbon transportation and logistic services from North American governments, opportunities exist to enhance the positioning of CN's rail freight transportation as the 'greener choice'.

For example, as part of its 2006-2012 action plan on climate change, the Quebec government created an assistance program to support transportation companies and organizations in their efforts to improve energy efficiency and lower GHGs.

We are also starting to see similar developments evolving in other North American states and provinces, including Quebec, Alberta, New Brunswick, Illinois, Minnesota, and Wisconsin.

In order to maximize this opportunity, we have been increasing our customer awareness of government incentive programs, including those offered by the Quebec government that support rail freight solutions. Through these endeavours, we expect to increase our market share, while continuing to enhance the customer experience.

Furthermore, CN also expects to benefit from government funding to support our initiatives to enhance our locomotive, truck and shipping fleets towards greater fuel efficiency.

# Risks and Opportunities

## 7. Physical Opportunities

7.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

At CN, we also recognize that while physical changes resulting from climate change could present important opportunities for our business. The Sales and Marketing Department typically identifies opportunities to grow revenues, while various departments throughout the Company typically identify areas for cost savings. Opportunities that could present significant benefits to the Company are included in our planning process and are generally discussed at the regular meetings of the Executive Committee. The following section provides an overview of physical opportunities that are, or could impact, CN's operations.

|                         |                    |     |                           |      |
|-------------------------|--------------------|-----|---------------------------|------|
| Frequency / Probability | High               |     | <div>3</div> <div>1</div> |      |
|                         | Medium             |     |                           |      |
|                         | Low                |     | <div>2</div> <div>4</div> |      |
|                         |                    | Low | Medium                    | High |
|                         | Severity of Impact |     |                           |      |

### Induced changes in natural resources and amenities

- 1. Increase in agriculture and feedstock from warming climates
- 2. Competitive advantage from declining navigational waters
- 3. Volume growth of lumber in pine beetle-affected areas
- 4. Energy savings from warmer climates

|  |                                                                               |
|--|-------------------------------------------------------------------------------|
|  | High significance - disclosure and alignment with business strategy           |
|  | Medium-high significance - disclosure                                         |
|  | Medium low significance, disclosure depends on risk perception of the Company |
|  | Not significant, disclosure not required                                      |

# Risks and Opportunities

## 7. Physical Opportunities (cont.)

7.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

### Opportunities / Impacts

### Opportunities Management

#### INDUCED CHANGES IN NATURAL RESOURCE AND AMENITIES

##### Warming Climates Increase Agricultural and Forest Feedstock in the Prairie and Northern Regions

A warmer climate could lengthen growing seasons and increase the availability of agricultural and forest feedstock. These opportunities could be especially important within the prairie regions of Canada, lengthening growing seasons and increasing crop production in northern regions where suitable soils exist.

In 2009, the prairie regions experienced below normal temperatures which partially attributed to the lower revenues that we generated within the grain and fertilizer commodity group.

We continue to monitor warming trends and the impact on agriculture and forest feedstock revenues. With a diversified portfolio of business from a variety of commodity groups, CN has been able to offset the impacts of climate change on our business by diversifying our portfolio to other commodity groups that are less reliant on changing climatic conditions.

##### Declining Navigational Waters Resulting in Competitive Advantages against Barge Competition

Warming temperatures could result in significant declines in navigational waters, particularly along the St. Lawrence-Great Lakes Seaway, Gulf Coast, and the Mississippi River. These declines could impact barge traffic and present a competitive advantage for our rail and intermodal operations, particularly in terms of coal and grain.

Barge competition and barge rates can be adversely affected by navigational interruptions from ice, floods, and droughts. As such, warming temperatures and their impact on navigational waters could increase our traffic volumes when shipping alternatives are not possible due to climatic changes.

##### Warming Temperatures Results in Volume Growth from Lumber in the Pine Beetle-affected Areas

Since 1994, as a result of mild winters, hot dry summers and the large quantity of mature lodge pole pine trees, B.C. has been subjected to the most extensive mountain pine beetle infestation in the provinces' recorded history. In 2006, the pine beetle infestation spread into north-western Alberta. Like their B.C. counterparts, forest companies in Alberta are increasingly focused on harvesting those areas already affected as well as those susceptible to infestation, thereby increasing traffic volumes. With a track in the heart of the pine beetle-affected area, CN has important opportunities for volume growth.

In 2009, the Company continued to derive revenue from the transportation of beetle-kill wood. With a track network in the heart of the pine beetle-affected area, along with CN's continued capacity improvements, the Company is in a strong position to move this beetle-kill wood traffic.

##### Energy Savings from Warmer Winters

Warmer winters could result in decreased fuel consumption needs for rail locomotives and trucks during the winter months. In addition, reduced energy needs within our yards and business operations, could also provide reduced heating costs and ultimately fewer GHG emissions.

The positive impact of warming trends on fuel and energy consumption is not expected in the immediate short-term. However, we continue to monitor warming trends.

# Risks and Opportunities

## 8. Other Opportunities

8.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

Other opportunities related to climate change are typically identified by a variety of internal departments. Business opportunities that are considered significant to the business are itemized and addressed at the regular meetings of the Executive Committee, as well as at the annual board meetings, as considered relevant. The following section provides an overview of other climate change opportunities that could impact our business.

|                         |                    |     |         |       |
|-------------------------|--------------------|-----|---------|-------|
| Frequency / Probability | High               |     |         | 7     |
|                         | Medium             |     | 8 1 2 3 | 6 4 5 |
|                         | Low                |     |         |       |
|                         |                    | Low | Medium  | High  |
|                         | Severity of Impact |     |         |       |

### New service and / or product market opportunities

1. Competitive positioning over truck due to fuel cost increases

### Increased efficiency of goods and services

2. Technological developments
3. Economic conditions
4. Acquisitions

### New energy products or services

5. Product innovation and new markets
6. Clean technology markets

### Reputation / Attract and Retain Talent

7. Enhanced reputation in sustainable rail freight transportation
8. Attract, develop and retain talent

|  |                                                                               |
|--|-------------------------------------------------------------------------------|
|  | High significance - disclosure and alignment with business strategy           |
|  | Medium-high significance - disclosure                                         |
|  | Medium low significance, disclosure depends on risk perception of the Company |
|  | Not significant, disclosure not required                                      |

# Risks and Opportunities

## 8. Other Opportunities (cont.)

### Opportunities / Impacts

### Opportunities Management

#### NEW SERVICES AND / OR PRODUCT MARKET OPPORTUNITIES

##### Competition from Other Carriers

Increases in fuel costs due to disruptions in supply caused by climatic changes could provide a competitive advantage to railroad carriers, especially in relation to long distance trucking companies. Competition from trucking companies is typically intense in Eastern Canada where there is an extensive highway network with population centres located relatively close to one another.

With increases in fuel costs, CN could have a competitive advantage since fuel cost is an important variable affecting our competitive positioning. This is especially the case when you consider that railroads are up to six or more times more fuel-efficient than trucks. Over the past year, our views on the opportunities associated with fuel cost increases have remained the same.

#### INCREASED EFFICIENCY OF GOODS AND SERVICES

##### Technological Developments

With increasing pressures to reduce our reliance on non-renewable sources of energy, opportunities exist to explore alternative more sustainable fuels, particularly within rail freight transportation. Doing so will enable us to further reduce our GHG emissions as well as meet regulatory compliance obligations.

To this end, CN has been committed to working with manufacturers and research centres to support the development of cleaner rail technologies. Investments have now reached CDN \$2 million, which includes monitoring research and development of the next generation locomotives using hydrogen injection, GENSET, and alternative fuels.

Furthermore, we support research and educational advancements in rail through university sponsorships. We are also currently implementing an initiative to replace our largest shipping motor vessel engines with more efficient models. Furthermore, we are initiating a study to assess the feasibility of converting our steam vessels to more fuel efficient motor vehicles.

##### Economic Conditions

The Company, like other railroads, is susceptible to changes in the economic activity of the industries and geographic areas that produce and consume the freight it transports or the supplies it requires to operate. A negative change in North American and global economic conditions, could effect the volume of rail shipments, which could present opportunities for the Company to improve our fuel efficiency ratios at times when we are forced to run our locomotives at sub-optimal levels.

For instance, in 2009, the economic downturn put even greater pressures on the Company to meet its operational efficiency objectives.

In response to these pressures, a cross-functional team at CN applied their expertise to optimize locomotive fuel consumption without affecting train schedules through the use of the web-based horsepower per ton analyzer.

The initiative has been the major contributor to a month over month average increase of 4.1% in fuel productivity, representing millions of dollars in annualized savings for CN.

##### Acquisition

The Company continues to invest in various strategic initiatives to expand the scope of its business, including growth through acquisitions. Through our acquisitions, CN seeks deals that will enable the Company to drive new efficiencies and operating improvements and in doing so enhance our ability to compete in a lower-carbon economy.

For instance, in 2009, the Company's recent acquisition of a major portion of the EJ&E will enable CN to drive new efficiencies and operating improvements on our network as a result of streamlined rail operations and reduced congestion. The efficiencies realized through the EJ&E acquisition are expected to enhance our operating ratio, and ultimately result in carbon efficiencies.

8.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

# Risks and Opportunities

## 8. Other Opportunities (cont.)

### Opportunities / Impacts

### Opportunities Management

#### NEW ENERGY PRODUCTS OR SERVICES

##### Product Innovation and New Markets

With growing concerns related to climate change, there has been a corresponding increase in new technologies, products and services, which could present significant opportunities for growth in our business. In order to optimize the opportunities, we have been actively tapping into new growth markets in three key ways.

First, we established an alternative fuel strategy to explore traffic growth opportunities in alternative fuels. CN has already started to expand its business of transporting sustainable energy products, which include biodiesel, ethanol and wood pellets.

Second, with increasing globalization of traffic flows and emergent product markets, CN is looking beyond the traditional forest product segments to new opportunities, including recycled paper. Over the last few years, environmental concerns regarding forest degradation and their carbon storage capacities has grown, as well as landfill maintenance and development costs. As a result, the market demand for recycled paper has been growing, especially in developing countries. With our strong network in the U.S. Midwest and access to ports on the West, East and Gulf coast, CN is ideally placed to move this traffic.

Finally, saw dust and wood chip residue has now found its way into a new heat and energy source through wood pellets. Demand and production are driven by pressure for bio-energy solutions and GHG reductions. A significant portion of the world's increasing wood pellet production comes from Canada – and much of that from British Columbia facilities. CN is playing a key role in helping producers get their pellets to markets around the world. In 2009, CN hauled more than 800, 000 tons of wood pellets and sees more opportunities in the future for this green energy source.

##### Clean Technology Markets

As the issue of climate change and the need for renewable energy sources reaches a critical point, CN is well positioned to find growth opportunities in cleaner technology markets. In many places in North America, new legislation is being introduced to encourage the development of clean technology (e.g. proposed Waxman-Markey Bill, Ontario Bill and Quebec Bill).

In order to tap into this opportunity, CN has been working with wind turbine companies like Vestas and GE Energy to provide transportation solutions for wind farm projects throughout North America. Revenue growth from clean technology markets has the potential of presenting a considerable long-term growth initiative for CN. In addition, the Company also sees potential for the outbound movement of oil sands by-products, particularly the movement of bitumen and carbon dioxide destined for carbon capture storage.

8.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

# Risks and Opportunities

## 8. Other Opportunities (cont.)

8.1 The current and / or anticipated opportunities, affect on business and value chain, financial implications, actions to manage opportunities.

### Opportunities / Impacts

### Opportunities Management

#### REPUTATIONAL OPPORTUNITIES AND INCREASED ABILITY TO ATTRACT AND RETAIN TALENT

##### Enhanced Reputation in Sustainable Freight Transportation

Environmental responsibility is becoming a top issue on corporate agendas, as companies grapple with the complexities associated with creating meaningful eco-efficient operations. As a result, there are growing pressures to not only manage the impacts controlled by the company but also those it influences through the supply chain network. For example, leading multinational and manufacturing companies are already setting environmental pre-selection criteria for their suppliers, which include specific criteria for carbon efficient operations. These pressures could present tremendous opportunities for the Company to enhance our reputation by demonstrating to our customers and other stakeholders the value of rail as a low carbon rail freight transportation solution.

With the development of a modal shift rail freight protocol, ongoing strategic partnerships and engagement with stakeholders (suppliers, customers, and governments), as well as our own operational efficiency focus, we have significantly improved our visibility and reputation as a leader in fuel efficiency. This reputation has already been well documented in the CIBC World Markets Investors Analyst 2009 Report: Carbon and The Rails (attached), which clearly differentiates CN as the most fuel-efficient rail operation with an industry-low operating ratio. In addition, our reputation as a responsible railroad was recognized for the second consecutive year in the Corporate Knights rating scheme (attached) and we are now currently selected on the Jantzi Social Index.

Over the past year, our view on the opportunities for reputational management has improved. We remain committed to increasing our disclosure of carbon risks and opportunities, and to leveraging and enhancing our leadership position. Through our growing reputation as a responsible carbon conscious company, we expect to tap into new opportunities to grow our market share and revenues with existing and new customers.

##### Attract, develop and retain talent

The Company, like other railway companies in North America, may experience demographic challenges in the employment levels of its workforce. Changes in employee demographics, training requirements, and availability of qualified personnel, could negatively impact the Company's ability to achieve its strategic business objectives, including those related to operational and carbon efficiency.

We are committed to the well-being and success of all our employees, and dedicated to ensuring employees can grow to their full potential and be recognized for their contributions to CN's success.

As a leader in the North American rail industry, CN recognizes its responsibilities with respect to GHGs and the impact on global warming. As such, we have made emission reduction an integral part of our day-to-day activities through the contributions and involvement of our employees. As such, we have aligned our reward and incentive structure for employees to include energy efficiency performance, and continue to recognize outstanding contributions through CN President's Award for Excellence.

Earlier this year, we established a multi-functional sustainability team, which includes a focus on energy and carbon efficiencies. Through this committee and the interactions of various departments in our carbon efficiency initiatives, our employees are engaged in not only contributing innovative solutions to meet our company objectives but also widening their skill sets to address climate change issues. In 2010, we expect to roll out our employee engagement survey to understand better how to engage our employees throughout our sustainability and climate change initiatives.

CN understands that long-term success is connected to a sustainable and viable future. By aligning our corporate responsibility values with those of our employees, we look favourable on our ability to attract, develop and retain talent within the organization.



**Strategy**

# Strategy

## 9. Strategy

9.1 Group business strategy link with actions taken on risks, opportunities, emission reduction targets, public policy engagements, and external communication.

CN recognizes that long-term success is connected to a sustainable and viable future. In order to ensure our success, we have aligned our business strategy with our climate change strategy, which is further linked to our high rated carbon risks and opportunities. The risks and opportunities that ranked within the high to medium-high rating (as presented below) were considered strategically important. As such, the Company addressed actions to respond to these risks and opportunities as outlined in the table below. It is important to note that the risk rating of high is not synonymous with the concept of materiality as determined in our financial reports.

| Frequency / Probability | High               |     | 8<br>5 7 | 10 1            |
|-------------------------|--------------------|-----|----------|-----------------|
|                         | Medium             |     |          | 3 2<br>9 6<br>4 |
|                         | Low                |     |          |                 |
|                         |                    | Low | Medium   | High            |
|                         | Severity of Impact |     |          |                 |

### SEVERITY / DEGREE OF IMPACT

- Opportunities
- Risks
- Strategic risks and opportunities (ie. rated as high or medium-high)

### RISKS

1. Air Pollution Limits (locomotive / vessel emission standards) posing financial and compliance risks
2. Frequent severe weather events impacting network infrastructure / track operating efficiency
3. Changing customer demands for low carbon services impacting CN commodity markets
4. Competition from other carriers

### OPPORTUNITIES

5. Voluntary agreements and emission limits could result in greater fuel efficiency
6. Cap and trade schemes / taxes means carbon credits from shifting truck to rail as well as from operational efficiencies
7. Customer and supplier requirements e.g. Walmart and CDP to benefit CN low carbon transport and logistics positioning.
8. Weather changes could increase CN natural resource markets eg. lumber in pine beetle-affected areas and agriculture and feedstock from warming climates
9. New energy products or services e.g. clean technology markets, biomass, ethanol
10. Enhanced reputation in sustainable rail freight transportation from CN's low carbon service offering

### CN's CARBON STRATEGY

- REDUCE GHG EMISSIONS FROM OUR SERVICES
- INCREASE ENERGY EFFICIENCY FROM OUR BUILDINGS AND EQUIPMENT
- ADAPT THE BUSINESS TO THE CONSEQUENCES OF CLIMATE CHANGE
- ENGAGE IN CLIMATE CHANGE DIALOGUE

The Company is responding to its climate change risks and opportunities in a way that effectively aligns with our business strategy, enabling us to manage our exposure and position ourselves for growth in a carbon constrained world. Our climate change initiatives have been integrated into our sustainability action plan, which represents a tool for identifying and reporting on progress.

In order to effectively integrate the climate change opportunities into the business strategy, we will be working with our sustainability committee to align the Company's sustainability values, and specifically our climate change objectives, with the skills development, performance management, and empowerment of our work force.

# Strategy

## 9. Carbon Strategy (cont.)

9.1 Group business strategy link with actions taken on risks, opportunities, emission reduction targets, public policy engagements, and external communication.

| Business Strategy                                                  | CN's Carbon Strategy and the Actions taken on Climate Change Risks and Opportunities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Carbon risks | Carbon opportunities |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------|
| <b>REDUCE GREENHOUSE GAS EMISSIONS (GHGS) FROM OUR SERVICES</b>    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                      |
| Operational Excellence                                             | <p><b>Reduce rail operation emissions footprint.</b> The following objectives have been set:</p> <ul style="list-style-type: none"> <li>» Locomotive GHG Emission Intensity: Under our Canadian MOU, we have established a GHG intensity (tCO<sub>2</sub>e/GTM) objective of 5 percent by 2010, based on 2007 levels. Through various initiatives, including precision railroading, a greener fleet and better practices in our yards (described in section 9.7) we are on track to meeting our objectives. In 2009, we successfully reduced our GHG intensity emissions (tCO<sub>2</sub>e/GTM) by 5 percent based on 2007 levels.</li> <li>» Locomotive Fuel Improvement: In 2009, the Company achieved a 2.1 percent fuel improvement. In 2010, we are committed to achieving an annual fuel improvement of 4%.</li> </ul>                                                                                                                                                                                                                                                                                      | 1            | 5                    |
| Operational Excellence                                             | <b>Acquire a greener fleet</b> to maximize fuel savings and meet emission standards. This includes locomotive, trucks, vessels, and other CN vehicles. Furthermore, the Company is focused on exploring the carbon credit gains that could be realized from more efficient fleets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1            | 5                    |
| Operational Excellence                                             | <b>Implement a company-wide fuel improvement objective.</b> The Company is compiling fuel consumption data from all aspects of the business. Once established, a fuel improvement target will be rolled out for the entire business to include locomotives, trucks, vessels, vehicles and other business activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | N/A          | 5                    |
| Service Innovation                                                 | <b>Enhance the operational model / service innovation:</b> The Company is creating a more flexible customer focused operating and service model, which we expect will result in even greater fuel and carbon efficiencies. In 2010, CN is enhancing its customer-centric innovations, including the 'first mile-last mile' activities for handling customer loads. This approach will foster closer working relationships with customers, improve shipment deliveries, and ultimately gain fuel and carbon efficiencies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1            | 5                    |
| Top Line Growth                                                    | <b>Reduce emissions through intermodal business:</b> – Growth in intermodal is complemented by the advancements being made by our team in the approval of a modal shift quantification protocol that provides a method for our customers to calculate the GHG reductions from shifting truck freight traffic to rail.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3            | 6                    |
| <b>INCREASE ENERGY EFFICIENCY FROM OUR BUILDINGS AND EQUIPMENT</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                      |
| Operational Excellence                                             | <b>Enhance CN energy efficiency.</b> The Company has initiated a 3 year energy efficiency plan to be developed based on the results of our carbon inventory assessment. Once understood, we will develop objectives, targets and efficiency programs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | N/A          | 5                    |
| <b>ADAPT THE BUSINESS TO THE CONSEQUENCES OF CLIMATE CHANGE</b>    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                      |
| Operational Excellence                                             | <b>Prepare for potential disruptions to operations / services:</b> In recognition of the potential operational and service disruptions that could result from climate change and global warming impacts, the Company continues to: invest significantly in track infrastructure upgrades, execute and enhance our seasonal readiness plans, and ensure processes and procedures exist to recover from emergency weather situations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2            | N/A                  |
| Secular Industry Momentum                                          | <p>The Company is focused on taking advantage of the positive conditions impacting the rail industry, including those related to climate change, in a manner that optimizes our strategic positioning. From a climate change perspective, the Company has already started to adapt the business to:</p> <ul style="list-style-type: none"> <li>» <b>Communicate government policies supporting rail freight</b> – The Company is increasing customer awareness of government incentive programs, including those offered by the Quebec government for rail freight solutions, as well as programs aimed toward cleaner locomotive technologies.</li> <li>» <b>Take advantage of the growing demand for low carbon products and the recognition of the environmental benefits of rail versus truck</b> – The Company has developed and working towards approval of the modal shift quantification protocol throughout North America. The protocol can be used by CN's customers to gain carbon credits for switching from truck to rail, and thereby optimizing low carbon transportation alternatives.</li> </ul> | 4            | 6, 7, 10             |
| Top Line Growth                                                    | <p><b>Grow through renewable energy markets:</b> The Company continues to grow its shipments of commodities related to cleaner energy and technologies, including biodiesel, ethanol, wind turbine components and pellets.</p> <p><b>Maintain a diversified portfolio</b> – The Company continues to maintain a diversified portfolio of business from a variety of commodity groups. Doing so, helps the Company to mitigate the commodities impacted by climate change with other commodity groups that are less reliant on changing climate conditions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3, 4         | 8, 9                 |
| <b>ENGAGE IN THE CLIMATE CHANGE DIALOGUE</b>                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                      |
| Engage in the Climate Dialogue                                     | <b>Engage on carbon regulation developments:</b> We also continue to engage with policy makers, particularly the WCI, on the inclusion of the transportation sector into North American carbon regulatory frameworks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1            | 7, 10                |

## Strategy

### Targets:

#### 9.2-9.6 Current emission reduction target

CN has established both a GHG emissions efficiency reduction target as well as a fuel improvement target. The GHG reduction target is an emission intensity reduction target (kgCO<sub>2</sub>e/GTM) of 5 percent by 2010, based on 2007 baseline year. This target applies specifically to the GHG emissions associated with fuel consumption from the use of our locomotives, which represents more than 90% of our overall GHG emissions.

The fuel improvement target is based on year over year improvements. In 2009, the Company set a target to achieve a 2.5% fuel improvement in GTMs per US gallons of fuel consumed for 2009 over 2008. This target applies to all fuel consumption from the Company operations, including locomotives, trucks and car activities. For 2010, we have set a fuel improvement target of 4%.

#### Emission Reduction Targets

| Target Type           | Value of target | Unit                            | Base year | Emissions in base year (tC)2-e) | Target year | GHGs and GHG sources | Comments                                                                                                                                                                                                                                               |
|-----------------------|-----------------|---------------------------------|-----------|---------------------------------|-------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Intensity</b>      | 5%              | kgCO <sub>2</sub> e/GTM         | 2007      | 3,749,549                       | 2010        | Scope 1              | <p>The target applies to fuel consumption from our rail locomotives. The following provides an overview of our emission intensity history in kgCO<sub>2</sub>e / Gross Ton Mile:</p> <p>» 2007 – 13.10</p> <p>» 2008 – 12.74</p> <p>» 2009 – 12.31</p> |
| <b>Rolling target</b> | 2.5%            | GTM/US gallons of fuel consumed | 2008      | N/A                             | 2009        | Scope 1              | The target applies to all fuel consumption from our rail locomotives.                                                                                                                                                                                  |

# Strategy

## Emission Reduction Activities

### 9.7 Emission reduction activities.

| Actions                                                          | Energy Savings | Emission reductions | Investment | Monetary savings | Timescale of actions |
|------------------------------------------------------------------|----------------|---------------------|------------|------------------|----------------------|
| <b>LOCOMOTIVE FUEL CONSUMPTION – Ensuring better locomotives</b> |                |                     |            |                  |                      |

Since locomotive diesel engines make up the majority of CN's air emissions and fuel consumption, the Company continues to make significant investments in fleet renewal, remanufacture and retrofits. These initiatives are described in greater detail below.

30% 30% 200M N/A 2009

#### Fleet Renewal / Acquisitions

CN is committed to renewing our fleet with more fuel-efficient locomotives. Since the Company's privatization in 1995, we have acquired 631 new locomotives under our regular fleet renewal program. Specifically, for the period 2009-2010, the Company purchased 90 additional electro-motive diesel (EMD) locomotives.

This acquisition will enable retirement of older locomotives and the new EMD will be up to 20 per cent more fuel-efficient than the ones they replace and comply fully with the latest regulatory requirements for reduced locomotive emissions. In addition, the units are equipped with distributed power ('DP') with higher-power and higher-adhesion capabilities, requiring fewer locomotives to pull the same train weight. With more optimum matching of motive power to train operations, these new locomotives result in economies in fuel consumption and reduction in emission intensities. With the acquisition of more fuel-efficient locomotives in our fleet, we have been able to realize 15-25% fuel savings versus older models.

#### Fleet Remanufacture

To date, more than 300 of our core fleet of diesel locomotives have been remanufactured since 2002. Remanufacturing our older locomotives increases reliability and ensures the locomotives meet U.S. Environmental Protection Agency (EPA) Tier 0 Regulations for NOx emission reductions. Through the re-manufacture of our locomotives we have realized approximately 3 percent fuel improvement, which has translated into roughly CDN\$ 35 Million of fuel savings to date.

#### Retrofitting Existing Switcher Locomotives

We continue to investigate options to retrofit existing switcher locomotive bodies with new tier-compliant diesel engines. One of the options that is currently under review is the replacement of large conventional medium-speed diesel engines with multiple smaller industrial diesel engines packaged as individual generator sets (known as 'GENSETS'), which could result in lower fuel consumption and emissions. To date, the application of GENSETS is still in a testing stage.

# Strategy

## Emission Reduction Activities (cont.)

### 9.7 Emission reduction activities.

| Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Energy Savings | Emission reductions | Investment | Monetary savings | Timescale of actions |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|------------|------------------|----------------------|
| <b>LOCOMOTIVE FUEL CONSUMPTION – Efficiently Operating the Railroad</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                     |            |                  |                      |
| <p>CN's 'Precision Railroad' model is the foundation of the Company's operational efficiency enabling the reliable and efficient movement of freight through precise planning of our railroad operations. Through 'Precision Railroad', fewer railcars and locomotives are needed to ship the same amount of freight in a tight, effective and efficient operation, translating into greater reliability for customers, increased fuel efficiency and reduced emissions.</p> <p><b>Intermodal Operations</b></p> <p>For customers who do not have direct access to rail, using both truck (for the short haul) and rail (for the long haul), represents a significant opportunity to reduce the GHG emissions associated with truck-only shipping. CN has a large network of intermodal terminals across NA. Our innovative service model has enabled CN to become one of the most efficient intermodal railroads in NA.</p> <p><b>Co-production</b></p> <p>Co-production refers to a cooperative effort between railroads to share track and rail infrastructure in an effort to improve the flow of traffic and maximize efficiencies for both carriers. For example, CN and CPR share a track in BC whereby all westbound trains of both railroads, usually carrying heavy commodities, operate over the CN line and all eastbound trains of both railroads, usually transporting lighter loads, operate over the CPR line. Fuel is saved by the single direction trains, as well as by trains using routes with the lowest grades to carry heavy loads.</p> <p><b>Routing protocols</b></p> <p>CN has a series of routing protocols with its U.S. interline partners, establishing the most efficient gateways for routing traffic between railroads –regardless of ownership. The routing protocols improve both transit time and asset utilization making the most efficient use of existing capacity and eliminating excess miles travelled on inefficient routings. CN has routing protocol agreements with all six Class 1 North American railways.</p> <p><b>Precision Fuel Management</b></p> <p>The Company initiated a fuel management program to manage fuel with greater precision. Through this program, we expect to achieve accurate daily measures of fuel efficiency, reductions in fuel consumption, and increases in fuel productivity. A 2% savings in fuel consumption per year is forecasted, which equates to approximately 14M per year.</p> | 2%             | N/A                 | N/A        | 14M              | Ongoing              |

# Strategy

## Emission Reduction Activities (cont.)

### 9.7 Emission reduction activities.

| Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Energy Savings | Emission reductions | Investment | Monetary savings | Timescale of actions |
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| <b>LOCOMOTIVE FUEL CONSUMPTION – Focused Fuel Conservation Practices</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                     |            |                  |                      |
| <p><b>Automatic Stop / Start Devices</b></p> <p>In November 1996, CN began to equip its locomotive switching fleet with automatic stop / start devices. These devices conserve fuel and reduce emissions by automatically shutting down locomotives when they are not in use, and powering them up again when required to maintain critical locomotive functions. To date, over 50% of CN's switcher fleet has been retrofitted to employ this feature. All new locomotives purchased by CN, as well as those locomotives that we overhaul, will be equipped with automatic stop / start devices. As a result, CN has saved more than 1.5 M Litres of fuel throughout our Canadian operations by installing automatic stop / start devices. This number is based on studies demonstrating annual savings per locomotive of 30,000L, and the return on capital and installation costs in approximately 2 years.</p> <p><b>Low Idle</b></p> <p>The low idle feature allows the diesel engine to idle at a reduced speed when locomotives are awaiting assignment or coasting down hill, saving approximately 10 litres of fuel per hour. On the accepted duty cycles, savings can be up to 1% of the fleet annual fuel consumption. Since 1980, all new locomotives are equipped with low idle features. To date, approximately 60 percent of our fleet have applied the low idle feature.</p> <p><b>Longer Trains</b></p> <p>Over the past 10 years, CN has invested CDN\$325 Million on siding extensions enabling longer, heavier trains, including in cold weather conditions, and improved train handling, reduced train separations and overall safety of operations. In 2009, we spent \$400 Million on rail infrastructure projects in CN's western region where the Company also invested in extended sidings and terminal improvements to grow its business and permit more efficient movement of traffic in western Canada. This included CN's line to the new Port of Prince Rupert terminal.</p> <p><b>Train Pacing, Coasting and Braking Strategies</b></p> <p>Dynamic brake equipment allows the use of the dynamic brake to control train speed variations rather than the use of the air brake system. As a result, fuel consumption is reduced. Where operations permit, the use of pacing or coasting to stop our trains rather than using heavy braking requiring engine power, has also enabled us to yield fuel and emission reductions</p> <p><b>Notch Limiting</b></p> <p>The practice of notch limiting is undertaken when our locomotive crew personnel are instructed not to run their top notch setting when maximum power is not required. A pilot project currently underway is showing significant benefits with respect to fuel savings.</p> <p><b>Rail Lubrication</b></p> <p>Rail lubrication reduces surface friction between the rail and the freight cars, requiring less effort to maintain a specific speed. This practice results in lower fuel consumption and lower GHG emissions. To date, approximately 62 percent of CN's locomotives are equipped with lubrication systems. We also achieved the same results by applying lubrication to the flange of the locomotive wheel, which also reduces any friction.</p> <p><b>Reassigning Older Locomotives</b></p> <p>When older locomotives are re-assigned to lines with less traffic it ensures new more fuel-efficient locomotives are used in the heaviest work cycle. For example, we have recently expended resources to re-assign older locomotives in Alberta on the former Savage rail line.</p> <p><b>Acquisition of Trucks for Freight Cars</b></p> <p>The Association of American Railroads (AAR) has required all new freight cars to be equipped with trucks (bogies) that steer better around curves. This reduces lateral curve forces on the rails resulting in lower fuel consumption and less wear on the rail. CN has purchased 2200 freight cars with 4400 M-976 trucks (bogies) since 2004.</p> <p><b>Smart Indicators</b></p> <p>CN has installed weather stations on all switch warmers on its main line between Winnipeg and Montreal. The systems monitor outside temperatures and humidity and when conditions for snow or freezing rain are predicted the units automatically warm the switches. By using the smart indicators to ensure that the switches are heated only when required, CN has been able to reduce our switch energy consumption by 50 percent.</p> | N/A            | 1.5M litres         | N/A        | N/A              | 2009                 |

## Strategy

### Emission Reduction Activities (cont.)

#### 9.7 Emission reduction activities.

| Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Energy Savings | Emission reductions | Investment | Monetary savings | Timescale of actions |
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| <b>LOCOMOTIVE FUEL CONSUMPTION – Better Practices and Greater Efficiency in our Rail Yards</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                     |            |                  |                      |
| <p>Through better practices in our rail yards, we have been able to increase our operational efficiency, while significantly reducing our fuel consumption. These practices include:</p> <ul style="list-style-type: none"> <li>» locomotive shutdowns in our yards in accordance with CN's shutdown policy;</li> <li>» streamlined car handling where our operators minimize switching moves; and,</li> <li>» crew training and awareness, including the Advanced Locomotive Refresher Training (ALERT), that focuses on the importance of fuel conservation practices.</li> </ul> <p>In order to assess performance, we review variances on an ongoing basis between how trains are operated and handled. In 2008, our reviews indicated a 2/3 compliance rating. These types of practices have been important contributors to our fuel reduction accomplishments, which to date stand at 30 percent since 1991.</p> <p>Furthermore, the Company we have invested more than CDN\$ 100M to reconfigure the Harrison Yard switching facility to create a more efficient layout. The completion of the reconfiguration positions CN to handle existing and future traffic growth in the region, more quickly and efficiently.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N/A            | N/A                 | 100M       | N/A              | 2 years              |
| <b>IMPROVE NON-LOCOMOTIVE FUEL CONSUMPTION – On Company Service Fleet</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                     |            |                  |                      |
| <p>Improvements to fuel efficiency associated with the operation of our OCS vehicle fleet are being achieved in two main areas.</p> <p>First, during our annual vehicle replacement program (approximately 400 vehicles per year), we purchase vehicles which provide state-of-the-art energy efficiency and emission reductions for both traditional power sources (ie. diesel and gasoline engines) and vehicles with alternative fuel efficient power sources such as hybrids.</p> <p>Second, in order to continually improve our OCS fleet fuel efficiency (measured as kilometers operated per litres of fuel consumed), we track and manage three specific vehicle operating and utilization practices that have the greatest potential to improve vehicle fuel efficiencies and reduce total fuel consumption. These are unnecessary vehicle idling, speeding and overall vehicle utilization.</p> <p>GPS (Geographic Positioning System) units are installed on all new OCS vehicles. At the end of 2009, 1,100 vehicles of 4,500 (24% of the fleet) were equipped with GPS units. The GPS units are used to identify vehicles in which:</p> <ul style="list-style-type: none"> <li>» fuel efficiency can be improved and consumption reduced by reducing unnecessary idling and eliminating speeding</li> <li>» fuel consumption can be eliminated altogether by removing the vehicle from CN's fleet due to insufficient utilization</li> </ul> <p>CN has established an aggressive reporting and training program, accompanied by appropriate accountabilities, to reinforce with employees their role in improving fuel efficiencies and reducing total fuel consumption in a manner that continually maintains safety of operations. The present fuel efficiency improvement target is to increase fuel efficiency by 5% in 2010.</p> | 250,000 litres | N/A                 | \$0.1 M    | \$250,000        | Ongoing              |

## Strategy

### Emission Reduction Activities (cont.)

#### 9.7 Emission reduction activities.

| Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Energy Savings | Emission reductions | Investment | Monetary savings | Timescale of actions |
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| <b>IMPROVE NON-LOCOMOTIVE FUEL CONSUMPTION – Intermodal Trucking Fleet</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                     |            |                  |                      |
| <p>CN has implemented a number of initiatives to target fuel and cost savings associated with our truck fleet operations. These include:</p> <ul style="list-style-type: none"> <li>» <b>Truck fleet acquisition / renewal program</b>– CN has established a program to incentivize truck owners to acquire and renew their trucks in order to gain greater fuel efficiency. To this end, CN has established tractors specifications (see one pager). Through this program, CN provides substantial subsidies to cover truck upgrades based on specifications (including engine and cab heaters, roof fairing, side extensions, aero mirrors, fuel tank covers, and tires). In addition, we also provide subsidies for the acquisition of new trucks, as required to meet our specifications.</li> <li>» <b>Monitoring</b> – Through our monitoring program, we anticipate additional fuel savings can be achieved through preventive maintenance detection activities. This includes truck engine monitoring, semi-annual tractor inspections, and safety &amp; efficiency testing for vehicles.</li> <li>» <b>Product Design</b> – CN works with our suppliers to optimize containers and chassis being hauled by our trucks. For example, we are working with our chassis developer to build a test chassis that is lightweight, has a fixed length with side skirts as well as single tires.</li> <li>» <b>Route Optimization:</b> CN works with our suppliers and customers to enable route optimization techniques that result in greater fuel efficiency. For example, we are purchasing a new dispatch system that is slated for implementation for the first quarter of 2011. Through route optimization we expect fuel savings of approximately 900,000 litres, which equates to approximately of 540,000. The system is also expected to gain additional savings in driver wait time, and thus idling time.</li> <li>» <b>Stakeholder engagement</b> – CN is a member of the Joint Industry Research Organization called FP Innovations) that focuses on the research of fuel conservation measures on commercial vehicles. The organization looks at various tests and investigations for trucking fleets. As a member, CN has access to various studies and thus enables us to apply this knowledge into future specifications as deemed feasible.</li> <li>» <b>Operator Training</b> – Through our commitment to reduce the amount of fuel used during our trucking operations, CN works with the truck owner-operators to improve fuel efficiency. We have developed a Driver Manual on fuel conservation for chassis and containers, and tractors. The initiatives are focused on tractor specifications for fuel conservation, tractor maintenance, driving behaviour, route optimization, gear and wheel selection, speed, idling and fuel levels. Canadian government organization has the Fleet Smart, part of the National Research Council, a full day training package on fuel conservation. Managers at CN are qualified trainers, and roll it out to all the truckers for 2010. The driver's manual is the same information, but instead of being 30 minutes, it is now long-term. We put an investment into this.</li> </ul> | 5M litres      | N/A                 | 8M \$      | 11 M \$          | 2010-2014            |

## Strategy

### Emission Reduction Activities (cont.)

#### 9.7 Emission reduction activities.

| Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Energy Savings | Emission reductions | Investment | Monetary savings | Timescale of actions |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|------------|------------------|----------------------|
| <b>IMPROVE NON-LOCOMOTIVE FUEL CONSUMPTION – Shipping Vessel Fleet</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                     |            |                  |                      |
| <p>CN has in place a number of initiatives to increase the efficiency of its shipping fleet, which is comprised of 4 motor vessels and 4 steam vessels. These initiatives are described as follows:</p> <ul style="list-style-type: none"> <li>» <b>Shipping fleet engine replacements</b> – The Company is currently engaged in a pilot program to replace the two engines on our largest motor shipping vessel with new more fuel efficient engines. The new engines not only meet the NOx and SOx stringent emission standards, but also provide greater fuel efficiency returns.</li> <li>» <b>Conversion from steam ships to motor vessels</b> – A pilot study is underway to determine the feasibility of converting our steam based vessels to motor vessels. We expect that doing so, will enable the Company to realize greater fuel efficiencies and emissions. The study should be completed in the next year.</li> <li>» <b>Vessel equipment upgrades</b> – A number of equipment upgrades to our vessels are being implemented on an ongoing basis that have enable the Company to reduce fuel consumption. This included: the optimization of the propeller pitch to reduce drag and cavitation. use of the generator on-demand, automation of the Presque vessel waste heat boiler, and enhancements to the Callaway vessel such as adding a viscometer, enhancing the main steam line and installing portable fuel oil test meter.</li> <li>» <b>Shipping Operating Practices</b> – Our ship operators apply a number of practices to optimize efficiencies when operating vessels. First, economy speed protocols require our operators to reduce speed and arrival time when dock delays by other shippers are forecasted. Second, we have established a protocol to optimize operating parameters on our vessels to ensure the most efficient use of fuel.</li> </ul> | N/A            | N/A                 | N/A        | N/A              | N/A                  |

# Strategy

## Emission Reduction Activities (cont.)

### 9.7 Emission reduction activities.

| Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Energy Savings | Emission reductions | Investment | Monetary savings | Timescale of actions |
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| <b>INFORMATION TECHNOLOGY INITIATIVES THROUGHOUT OUR OPERATIONS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                     |            |                  |                      |
| <p>CN has directed strategic investments in information technology, which provides a critical foundation for the Company's ongoing efforts to drive innovation and efficiency in our service, cost control, asset utilization and safety. Through the efficiencies of our IT system, CN is able to take on an increasingly proactive approach to operational decision-making, which effectively boosts our company's energy / carbon efficiency.</p> <p><b>Service Reliability Strategy (SRS)</b></p> <p>SRS is an integrated database system that manages all aspects of rail service delivery, which enables CN to manage detailed trip plans while dramatically improving service and realizing fuel consumption efficiencies. Contains all car and train system information, which has been implemented since the 1990s. We are currently working on a five year plan to replace the SRS with the Transportation Renewal Program, which will enable us to implement more modern interface and increased operational efficiencies. One of the building blocks is the crew management system, which we are replacing with ICrew. We expect to spend more than 80M, which is part of our initiative to upgrade existing technology.</p> <p><b>DataCity</b></p> <p>DataCity is built on top of the Company's core systems and provides a single source of management information to strategic decision-making for all aspects of the Company's operations. As such, it provides access to key performance data, measuring all aspects of operations and service performance, including profitability, financials, engineering, mechanical, people, legal, regulatory and safety. These indicators are all tied to our fuel consumption metrics and provide important information in determining how we are performing from a fuel improvement perspective, and ultimately our carbon emissions.</p> <p><b>SmartYard</b></p> <p>SmartYard is an information system that takes information from different existing CN systems, including SRS, combines the data and then provides the best sequence for processing cars. By taking an integrated view of all functions and planning capabilities, the system allows the Company to lower dwell time and increases the speed at which cars are processed. These types of efficiencies enable the Company to realize fuel efficiencies. SmartYard deployment is ongoing and new capabilities are being added to improve the processes.</p> <p><b>Precision Engineering</b></p> <p>Precision engineering takes the enormous volume and complexity of asset and inspection information, as well as regulatory compliance rules, helping CN to manage engineering processes more efficiently. As a result we continue to be able to reduce engineering-related delays to trains, improve labour efficiency as a result of better information, and increase material and machine utilization, resulting in decreased GHG emissions. Through precision engineering, CN has become recognized as a leader in scheduled railroading, enabling us to maintain an industry-low operating ratio and become recognized as the most fuel-efficient rail operation in North America.</p> | N/A            | N/A                 | N/A        | N/A              | N/A                  |

## Strategy

### Emission Reduction Activities (cont.)

#### 9.7 Emission reduction activities.

| Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Energy Savings | Emission reductions | Investment    | Monetary savings | Timescale of actions |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|---------------|------------------|----------------------|
| <b>INFORMATION TECHNOLOGY INITIATIVES THROUGHOUT OUR OPERATIONS (CONT.)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                     |               |                  |                      |
| <b>Data Centre Optimization</b><br><br>First, since 2003 our IT department established a project to reduce 4000 square feet of our data centre space, which will in turn reduce energy consumption and costs associated with maintaining robust / redundant infrastructure environments such as electrical, air conditioning and lighting. To date, the data space centre has been reduced by half and greater efficiencies have been realized. Project cost was CDN \$10000-15000. The project completion is targeted for 2010 and is expected to save CN approximately CDN\$40000 in operating costs on an annual basis. Once completed, we expect to review CNs data centre footprint to identify additional opportunities to reduce space. | N/A            | N/A                 | 10,000-15,000 | 40, 000 per year | 2003-2010            |
| <b>Virtualization / Consolidation of Computer Server</b><br><br>CN's Windows computing server team is presently engaged in a project to virtualize approximately 70% of its 850+ physical server plant. This virtualization (Consolidation) will result in the ability to better manage overall infrastructure, realize cost reductions (ie: maintenance, electrical, floor space, etc), and produce a greener footprint. Once completed, this project we will be exploring the feasibility of replicating virtualization attributes at other CN sites.                                                                                                                                                                                        | N/A            | N/A                 | N/A           | N/A              | N/A                  |
| <b>Tele-presence</b><br><br>The Company has recently initiated a project to implement a multi-point Telepresence system between four locations at CN : Montreal, Homewood, Toronto and Edmonton. Through Telepresence, CN employees will have access to high definition video conferencing, reducing carbon emissions that would otherwise be consumed during travel for face-to-face meetings. The Company will be investing approximately CDN\$ 2.9 Million of capital expenditure and CDN\$ 407,000 a year on operating expenditures for the Telepresence system. Implementation of the system is expected within 1 year with estimated savings of \$1.3M per year.                                                                         | N/A            | N/A                 | 2.9M          | 1.3M per year    | 1 year               |

# Strategy

## Emission Reduction Activities (cont.)

### 9.7 Emission reduction activities.

| Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Energy Savings | Emission reductions | Investment | Monetary savings | Timescale of actions |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|------------|------------------|----------------------|
| <b>ENERGY EFFICIENCY ACTIVITIES IN OUR OPERATIONS (BUILDINGS AND EQUIPMENT)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                     |            |                  |                      |
| <p>We have established a comprehensive program to reduce the energy consumption as it pertains to electricity and natural gas. A description of our 2010 program is presented below.</p> <p><b>Upgrades to enhance energy efficiency in our operations</b></p> <p>As part of the Company energy reduction initiatives directed at electricity and natural gas, CN has established a number of projects maximize energy efficiency in our buildings. First, we are working with our sites to replace existing equipment with more energy efficient alternatives. This includes:</p> <ul style="list-style-type: none"> <li>» Boilers at the Winnipeg / Symington Yard,</li> <li>» Air compressors at our Edmonton facility,</li> <li>» Renovation of old yard offices at Conneaut, Ohio;</li> <li>» Demolition of vacant buildings in Tennessee and Illinois;</li> <li>» Leaking air lines at the Halifax, Windsor, Winnipeg and Symington locations, and,</li> <li>» Lighting Towers and HVAC units at the Toronto and Macmillan yard.</li> </ul> <p><b>Acquisition and Installation of energy efficient technologies</b></p> <p>CN continues to invest in the acquisition and installation of energy efficient technologies. For example, in the past year we converted our three corporate logos at our headquarter buildings to LED lights. Although brighter than ever, the change has resulted in significant energy savings, which amounted to approximately \$CDN 45,000 in annual energy cost savings.</p> <p><b>Green Office Buildings</b></p> <p>CN is increasingly looking to the Leadership in Energy and Environmental Design (LEED)-inspired criteria when it expands or builds new office space. We have LEED inspired CN offices in Montreal, Edmonton and Homewood that use natural or energy-efficient lighting, variable ventilation systems and low volatile organic compound (VOC) carpeting and fabrics. In Montreal, we have been able to realize annual savings of approximately CDN\$100,000 at CN's headquarters. In Edmonton and Homewood we expect to implement various LEED elements, including high efficiency boilers, lighting controls, and energy efficient windows. At this stage, the energy data associated with the buildings is still being compiled, and estimated savings have not yet been established.</p> | N/A            | N/A                 | 1.4 M      | N/A              | 2010                 |
| <b>PRODUCT INNOVATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                     |            |                  |                      |
| <p>CN actively investigates and adopts new engine technologies that have proved effective in lowering fuel consumption and emissions. Over the last several years, we have continued to monitor our manufacturers in the development of new engine technologies to lower fuel consumption and emissions. New technologies that we are currently monitoring include: hydrogen injection, GENSETs, engine idling technologies, rail lubrication, and alternative fuels. Over the past year, CN partnered with General Electric and the Sustainable Development Technology of Canada in the advancement of the next generation of locomotives for GHG reduction. We are also continuing to dialogue with our manufacturers to understand GENSET locomotives and the additional advantages of fuel savings.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | N/A            | N/A                 | N/A        | N/A              | N/A                  |

## Strategy

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### Emission Reduction Activities (cont.)

#### 9.9 Description of emission reduction activities.

Since GHG emissions and fuel consumption are inextricably linked, the reduction activities that we have implemented are designed to meet both objectives. Our commitment to the reduction of GHG emissions and fuel consumption, takes place on several levels, from the way we operate the railroad through 'Precision Railroading' to the adoption of a number of programs that advance railroad efficiency and promote emissions reduction, including locomotive acquisitions and upgrades.

In order to accomplish our reduction objectives, we have focused on programs that are directive to locomotive fuel consumption (constitutes 95% of our business), non-locomotive fuel consumption and energy consumption from utilities, including electricity and natural gas. These practices have been well embedded in our core operations for more than a decade, which have enabled the Company to achieve considerable reductions in fuel consumption.

## Engagement with Policy Makers

9.10-9.11 Engagement with policy makers on responses to climate change including taxation, regulation and carbon trading.

CN has been active at various levels throughout North America engaging with policy makers on responses to climate change, specifically in the area of carbon trading regimes, rail industry GHG emission standards and bio-fuel specifications. The following provides an overview of our engagements:

### Carbon Trading Policy Making

**Alberta Government:** We have been actively engaged with the Alberta government's carbon offset program to work with them on the approval of a modal shift quantification protocol that gives shippers emission credits for switching from truck to rail. In 2009, the protocol was enhanced to meet customer specifications and re-approved through the Alberta government.

**British Columbia Government:** CN has been actively engaging with the province of B.C. through the Pacific Carbon Trust to position the modal shift protocol, which they recently approved. Over the next year, we expect to continue to work with the PCT to establish the first modal shifting project.

**Canadian Federal Government** - We have previously engaged the federal government on the approval of the truck to rail modal quantification protocol at the national level. However, following the US election of President Obama in 2009, the Federal Government has indicated that it will be waiting on aligning its approach with that of the US. In the interim, we expect to continue to engage with the federal government.

**Western Climate Change Initiative** –We have been engaged with the WCI in discussions associated with its regional cap and trade system, and the positioning of rail freight as a viable low carbon transportation alternative. In fact, earlier this year, CN, alongside the WCI and the Province of BC, co-hosted a session to bring business and government leaders across North America together to initiate a dialogue on the treatment of transportation industry GHG emissions within the WCI, as well as providing CN with an opportunity to present its intermodal protocol for approval to the WCI.

CN believes that involvement in such sessions with leading policy makers in the WCI represents a significant opportunity for business leaders in the transportation sector to identify practical solutions and contribute to or support future policy development in a manner that will foster economic growth, while ensuring significant GHG emission reductions.

### Emission Standards Policy Making

**Railway Association of Canada (RAC)** - Through our membership with the RAC, we have been participating in initiatives to provide GHG emission data and support studies into the carbon benefits of rail freight transport.

**Environment Canada** - We are also engaging with Environment Canada, through our role as the chair of the RAC MOU Management Committee, in discussions regarding the development of future emission standards for locomotives.

**US EPA** – We are involved and continue to engage with the US Environmental Protection Agency to reduce emissions and develop action plans to demonstrate progress in meeting our SmartWay Agreements.

**American Association of Railroads (AAR)** – An important part of AAR's mission is to work with elected officials and leaders in Washington, D.C. on critical rail transportation issues to ensure that the railroads meet America's transportation needs today and in the future. As a voting member of the AAR, we use this forum to dialogue and keep track of American policies on the rail industry.

**Lake Carriers Association** – Lake Carriers' Association is the trade association representing U.S. vessel operators on the Great Lakes. CN participates on the Association as a major contributing member and playing an active role in shaping policy. For instance, through our role in the Association, CN engaged with the US EPA on emission standards and implementation feasibility for shipping vessels as specified under the EPA Rule.

**Great Lakes Maritime Task Force** –CN participates on these Associations as a major contributing member playing an active role in shaping policy. For instance, through our role in these Associations, CN engaged with the US EPA on emission standards and implementation feasibility for shipping vessels as specified under the EPA Rule.

**Truck Associations** –CN participates on various truck associations, including: Atlantic Provinces Trucking Association, Ontario Trucking Association, Manitoba Trucking Association, Alberta Trucking Association, British Columbia Trucking Association, American Trucking Association and the Canadian Council of Motor Carrier Administrators. As members of the Associations, CN participates on discussions related to climate and fuel efficiency issues. We also receive regular information on fuel conservation in trucking.

### Bio-fuel Specifications

CN has engaged with a number of provinces on issues related to the percent of renewable content in diesel fuels. In particular, we have been working with the provinces of Quebec, British Columbia, and Manitoba. Through our deliberations, we have communicated our concern regarding the potential for fuel cost increases from limited supply of renewable content alternatives. Furthermore, we are in continued dialogue regarding the technical difficulties associated with applying bio fuels in rail freight transportation during winter periods.



**GHG Emissions Accounting,  
Intensity, Energy and Trading**

# GHG Emissions Accounting, Intensity, Energy and Trading

## 10. Reporting Boundary

10.1 Category describing company for which GHG emissions are reported.

The category that best describes the Company for which GHG emissions are reported is: Companies over which financial control is exercised – per consolidated audited financial statements.

10.2 Parts of the business or sources of GHG emissions excluded from reporting boundary.

For the purposes of reporting, we have included both Scope 1 and Scope 2 GHG emissions. More than 90% of our Scope 1 GHG emissions are released through the diesel consumption of our locomotives. This year we have extended our reporting of Scope 1 emissions to cover the fuel consumption from the non-locomotive side of the business, including our truck, shipping vessel, On Company Service (OCS) fleet, heating and cooling activities, and other equipment related miscellaneous fuel consumption.

Our scope 2 emissions include the consumption of electricity throughout our operations.

Scope 3 GHG emissions are excluded from the report, since this data is not readily available. Over the next few years we will be working to develop a more consistent and global approach to our GHG emissions compilation, which will include outstanding, scope 1, scope 2 and scope 3 emissions.

10.3 Description of exclusions.

| Source                                       | Scope   | Explain why the source is excluded |
|----------------------------------------------|---------|------------------------------------|
| Propane Consumption in the USA               | Scope 1 | Reliable data not yet available    |
| Propane consumption from cylinders in Canada | Scope 1 | Reliable data not yet available    |

# GHG Emissions Accounting, Intensity, Energy and Trading

## 11. Methodology

### 11.1 Procedure to collect activity data.

#### SCOPE 1 GREENHOUSE GAS (GHG) EMISSIONS

##### Locomotive GHG Emissions

The process used to calculate our Scope 1 locomotive GHG emissions is based on the following components: fuel consumption, traffic data, and the associated emission factors.

**Locomotive fuel consumption data** – In order to measure our fuel consumption data, we rely on a combined approach of consumption data from invoices as well as fuel storage metered measurements. For our locations with a fuel storage metering system, the data is automatically fed into our Fuel Management System (FMS), which provides us with daily and monthly consumption data. For those locations that are not equipped with consumption measurement systems, we rely on invoices and weekly inventory reconciliations to compile the data. On a monthly basis, the fuel consumption data is compiled and a reconciliation is done to ensure all fuel purchased is accounted for either in inventory or consumed data. In the next few years, we will be working to extend the fuel management system to all locations.

**GHG emission factors** – In calculating the GHGs associated with diesel fuel consumption, we apply the emission factors provided by the IPCC 2006, Volume 2 Energy for Stationary and mobile scope 1 emissions sources. These factors are applied to the three most significant GHGs produced by locomotives: Carbon dioxide, Methane and Nitrous oxide. Please note, that as part of our GHG emission reporting to the Railway Association of Canada, we apply Environment Canada emission factors.

**Traffic Data** – The traffic data is compiled through mileage readings at our various stations located throughout the railway infrastructure network. This data is compiled on an ongoing basis.

##### Non-Locomotive GHG Emissions

Fuel Consumption data - The data is compiled using a variety of measures, as described below:

**Shipping fleet data** – CN currently operates an 8 vessel shipping fleet, of which 4 are motor vessels and 4 are steam vessels. The fuel consumption (comprising diesel and bunker) quantities and cost information are submitted to CN fuel supply management through supplier invoices on a regular basis. The invoices are also submitted to the CN shipping vessels department. On an annual basis, the information from the shipping department and the CN fuel supply management department are reconciled to identify any discrepancies and resolved accordingly. Once compiled, the information is then transferred to the Corporate Environmental Department for conversion into GHG emissions data.

**Intermodal trucking data** – The scope of data includes the diesel fuel used to operate the intermodal trucks. CN compiles both truck mileage data and fuel consumption data. Fuel mileage data is compiled through truck owner operated blackberries. At the start and finish of the trips, the truck owners enter the mileage readings from the odometer readings into their blackberries. CNs dispatch system extracts the information from the blackberries to the Permitax system, which is accessed by our sub-contractors for reporting purposes.

Fuel consumption data is collected from the truck owner fuel cards, which are used to purchase fuel. On a monthly basis the information is uploaded onto the CN payroll system. In the rare instances when a fuel card is not used, the information is manually entered into the system from receipts. On an annual basis, audits are undertaken to:

- » validate that fuel card numbers match the respective trucks
- » identify discrepancies in terms of miles per gallon data;
- » assess random trucks for a detailed review of fuel purchases in relation to mileage.

Once compiled, our sub-contractors provide a report on intermodal truck fuel consumption and mileage information. The information is then submitted to the Corporate Environment Department for conversion into GHG emissions data.

# GHG Emissions Accounting, Intensity, Energy and Trading

## 11. Methodology

11.1 Procedure to collect activity data.

### SCOPE 1 GREENHOUSE GAS (GHG) EMISSIONS (CONT.)

#### Non-Locomotive GHG Emissions

**On Company Service (OCS) fleet data** – The OCS data comprises of gasoline and diesel fuel. Approximately 94% of the total fuel consumed by OCS vehicles is captured by fuel credit cards. On a monthly basis, the electronic fuel credit card data for this 94% is uploaded into the Automotive Management Information System (AMIS).

An additional 5% of the total fuel consumed by OCS vehicles operating only on CN property is drawn from CN fuel tanks on CN property. This 5% usage is manually recorded, by vehicle, in AMIS by Fleet Management clerical staff on an ongoing basis. As such, 99% (94% and 5%) of the information is being reported accurately into the AMIS system. The final 1% of CN's total OCS fuel usage is supplied by suppliers outside of the credit card process. This 1% is associated with 283 vehicles (out of our fleet of 4,500). These 283 vehicles work in remote locations and their fuel consumption does not get recorded in AMIS because they don't use credit cards and because there are no Fleet Management staff on hand to manually input their consumption from non fuel credit card sources into AMIS.

On an annual basis, a reconciliation is done between the numbers entered into the AMIS system and the credit card records, resulting in a 99% accuracy. The information is then submitted to the Corporate Environment Department for conversion into GHG emissions data.

**Miscellaneous fuel consumption** – Information from the use of miscellaneous fuel is compiled through our tanks data base, which is comprised of a list of CN's tanks and fuel consumption and cost data entered manually from invoices. Fuel consumption data is extracted from the system and submitted to the Corporate Environment Department for conversion into GHG emissions data.

**Natural gas consumption** – The natural gas cost data are extracted into an excel spreadsheet from a central SAP database system that houses CN's energy consumption invoices. Once extracted, the average natural gas cost per MWh per region is obtained from a Hydro Quebec analysis report. The natural gas cost data is calculated in MWh. GHG emissions are then calculated directly into CO<sub>2</sub>e, using provincial/state emission factors from the National Emissions Inventory (for Canada) and from the US EPA (for USA).

#### GHG emission factors

The Environment Department compiles the fuel consumption information from the non-locomotive side of the business (shipping, intermodal trucks, OCS and miscellaneous fuel) within an excel spreadsheet. Once compiled, the GHG emissions are calculated using the generic density, net calorific value and emission factor s associated with the respective fuels. In order to reflect our international operations and the broader scope of our reporting for 2010, we have applied emissions factors (for carbon dioxide, methane, and nitrous oxide) provided by the IPCC 2006, Volume 2 Energy for stationary and mobile sources.

### SCOPE 2 GREENHOUSE GAS (GHG) EMISSIONS

#### Emissions from Electricity Consumption

The electricity consumption data are extracted into an excel spreadsheet from a central SAP database system that stores electricity cost data from utility invoices. Once extracted, the average electricity cost per MWh per region is obtained from a Hydro Quebec analysis report (attached). The electricity cost data is then calculated into MWh and GHG emissions are calculated directly into CO<sub>2</sub>e, using provincial/state emission factors from the Environment Canada National Emissions Inventory and from the US Energy Information Administration.

# GHG Emissions Accounting, Intensity, Energy and Trading

## 11. Methodology

11.2 Names and links to calculation tools.

CN Environment Department uses an internal excel spreadsheet to compile our fuel consumption data. Through this spreadsheet, we apply density, calorific values and emission factors, as described above.

11.3 Global warming potentials and origin.

| Gas              | Reference                                          | GWP |
|------------------|----------------------------------------------------|-----|
| Carbon dioxide   | International Panel for Climate Change (IPCC) 2006 | 1   |
| Methane          | Same as above                                      | 25  |
| N <sub>2</sub> O | Same as above                                      | 298 |

11.4 Emissions Factors and origin.

| Fuel / Material      | Emission Factors                                  |         |               | Reference                                                                                                    |
|----------------------|---------------------------------------------------|---------|---------------|--------------------------------------------------------------------------------------------------------------|
|                      | Number / Unit                                     |         |               |                                                                                                              |
|                      | Carbon Dioxide                                    | Methane | Nitrous oxide |                                                                                                              |
| Diesel (locomotive)  | 74100                                             | 4.15    | 28.6          | IPCC 2006, volume 2 Energy                                                                                   |
| Diesel (other)       | 74100                                             | 3.9     | 3.9           | IPCC 2006, volume 2 Energy                                                                                   |
| Gasoline             | 69300                                             | 25      | 3.9           | IPCC 2006, volume 2 Energy                                                                                   |
| Propane              | 63100                                             | 62      | 0.2           | IPCC 2006, volume 2 Energy                                                                                   |
| Furnace Oil          | 74100                                             | 3.9     | 3.9           | IPCC 2006, volume 2 Energy                                                                                   |
| Stove Oil            | 74100                                             | 10      | 0.6           | IPCC 2006, volume 2 Energy                                                                                   |
| Kerosene             | 71900                                             | 10      | 0.6           | IPCC 2006, volume 2 Energy                                                                                   |
| Natural Gas          | Factors based on location                         |         |               | Not applicable                                                                                               |
| Electricity (Canada) | CO2e factors based on provincial emission factors |         |               | Environment Canada National Inventory Report 2007                                                            |
| Electricity (USA)    | CO2e factors based on state emission factors      |         |               | Energy Information Administration 1997-1999 State Average CO2e emission co-effiicents for electric utilities |

# GHG Emissions Accounting, Intensity, Energy and Trading

## 12. Scope 1 Direct GHG Emissions

12.1 Total gross Scope 1 GHG emissions.

| Total Gross Scope 1 GHG emissions in metric tonnes of CO <sub>2</sub> -e | 2006      | 2007      | 2008      | 2009      |
|--------------------------------------------------------------------------|-----------|-----------|-----------|-----------|
|                                                                          | 4,594,608 | 4,486,788 | 4,358,512 | 4,236,310 |

Please note that our 2006-2008 data represents GHG emissions from the locomotive side of the business only. Our 2009 data, however, has been expanded to include other non-locomotive fuel consumption, including our shipping fleet, intermodal truck fleet, On Company Service Fleet, miscellaneous fuel consumption and natural gas consumption.

12.2 Total gross Scope 1 GHG emissions by country.

| Total Gross Scope 1 GHG emissions in metric tonnes of CO <sub>2</sub> -e | 2006      | 2007      | 2008      | 2009      |
|--------------------------------------------------------------------------|-----------|-----------|-----------|-----------|
| <b>Canada</b>                                                            | 3,353,692 | 3,256,766 | 3,204,924 | 3,125,565 |
| <b>U.S.</b>                                                              | 1,240,916 | 1,230,022 | 1,153,588 | 1,110,745 |

Please note that our 2006-2008 data represents GHG emissions from the locomotive side of the business only. Our 2009 data, however, has been expanded to include other non-locomotive fuel consumption, including our shipping fleet, intermodal truck fleet, On Company Service Fleet, miscellaneous fuel consumption and natural gas consumption.

Also, it was not possible to segregate the shipping data for Canada and the US. Shipping vessel data is therefore compiled within the U.S. numbers.

12.4 Total gross Scope 1 GHG emissions by business division.

|                                       | 2006      | 2007      | 2008      | 2009      |
|---------------------------------------|-----------|-----------|-----------|-----------|
| <b>Locomotives</b>                    | 4,594,608 | 4,486,788 | 4,358,512 | 3,749,549 |
| <b>Intermodal Trucks</b>              | N/A       | N/A       | N/A       | 98,545    |
| <b>Shipping Vessel Fleet</b>          | N/A       | N/A       | N/A       | 135,366   |
| <b>On Company Service Fleet</b>       | N/A       | N/A       | N/A       | 88,816    |
| <b>Miscellaneous Fuel Consumption</b> | N/A       | N/A       | N/A       | 795,931   |
|                                       | 4,594,608 | 4,486,788 | 4,358,512 | 4,236,310 |

Definitions of business division categories:

- » Locomotives – The use of fuel for the operation of our rail locomotives.
- » Intermodal Trucks – The use of fuel to run our intermodal trucking operations.
- » Shipping Vessel Fleet – The use of fuel for the operation for our 8 vessel shipping fleet.
- » On Company Service (OCS) Fleet - CN on-road and on-rail vehicles used to run the day to day business operations, infrastructure and maintenance support. The OCS vehicle fleet includes, cars, light duty trucks and specialized heavy duty trucks.
- » Miscellaneous Fuel – The use of fuel to for various building maintenance and operational activities related to terminal operations, buildings, switch heater and other equipment. Miscellaneous fuel covers the use of propane, stove oil, natural gas, furnace oil, and kerosene.

# GHG Emissions Accounting, Intensity, Energy and Trading

## 12. Scope 1 Direct GHG Emissions (Cont.)

12.5 Total gross Scope 1 GHG emissions by facility.

A breakdown by facility would not facilitate a better understanding of our business, given that our scope 1 emissions are mobile emissions that cover the movement of rail freight throughout North America.

12.6 Scope 1 GHG emissions by type.

| GHG Type                            | Scope 1 emissions (metric tonnes) |
|-------------------------------------|-----------------------------------|
| Carbon Dioxide (CO <sub>2</sub> )   | 3,742,412                         |
| Methane (CH <sub>4</sub> )          | 236                               |
| Nitrous Oxide (N <sub>2</sub> O)    | 1,319                             |
| Metric Tonnes of CO <sub>2</sub> -e | 4,236,310                         |

12.8 and 12.10 Scope 1 Fuel consumption by type and MWh.

| Fuels                | MWh        |
|----------------------|------------|
| Diesel (locomotives) | 12,590,182 |
| Diesel (others)      | 1,173,022  |
| Gasoline             | 219,914    |
| Propane              | 49,433     |
| Furnace Oil          | 12,926     |
| Stove Oil            | 2,787      |
| Kerosene             | 2,540      |
| Natural Gas          | 533,150    |

12.11 Scope 1 Data accuracy and uncertainty.

| Uncertainty                                            | Scope 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Uncertainty range                                      | We estimate an uncertainty range of 1% in our Scope 1 emissions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Main sources of uncertainty in your data               | <p>The main source of uncertainty in our scope 1 GHG falls within the fuel consumed through the use of locomotives, which represents more than 95% of our total GHG emissions.</p> <p>We currently apply a combination of both generic mass balance and metering measurement methodology in the compilation of our locomotive fuel consumption data. A reconciliation between the fuel consumption data from our invoices and the fuel consumption data from mass balance and metering measurements revealed a 1% variance.</p>                                   |
| Expand on the main sources of uncertainty in your data | <p>The 1% variance is mostly a result of the fuel evaporation losses at the dispenser fuel tanks. The discrepancies related to fuel consumption measurements from fuel dispenser metering systems are not always being captured. Furthermore, metering systems do not exist throughout our fuelling systems, thereby forcing the Company to rely on a combination of certified mass balance and metering measurements. The Company has initiated a precision fuel management program, which will expand our fuel metering system to cover all our fuel tanks.</p> |

13. Scope 2 Indirect GHG Emissions

13.1 Total gross Scope 2 GHG emissions.

The total Scope 2 GHG emissions are 226,443 CO2-e

13.2 Total gross Scope 1 GHG emissions by country.

| Total Gross Scope 2 GHG emissions in metric tonnes of CO2-e | 2009    |
|-------------------------------------------------------------|---------|
| Canada                                                      | 85,253  |
| U.S.                                                        | 141,190 |

13.4 Total gross Scope 1 GHG emissions by business division.

A breakdown of Scope 2 GHG emissions based on division is not readily available at this time and would not facilitate a better understanding of the business.

13.4 Total gross Scope 1 GHG emissions by facility.

A breakdown of Scope 2 GHG emissions based on facility is not readily available at this time and would not facilitate a better understanding of the business.

13.6 Energy purchased for consumption.

| Energy Type | MWh      |
|-------------|----------|
| Electricity | 536, 129 |
| Heat        | N/A      |
| Steam       | N/A      |
| Cooling     | N/A      |

# GHG Emissions Accounting, Intensity, Energy and Trading

## 13. Scope 2 Indirect GHG Emissions (cont.)

13.8 Scope 2 Data accuracy and uncertainty.

| Uncertainty                                            | Scope 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Uncertainty range                                      | Uncertainty range of less than 1%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Main sources of uncertainty in your data               | <p>Uncertainty is mostly based on:</p> <ul style="list-style-type: none"> <li>» Extrapolations made to estimate MWh</li> <li>» Use of generic factors to calculate GHG emissions.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Expand on the main sources of uncertainty in your data | <p><b>Extrapolations made to estimate MWh</b></p> <p>At this time, invoices from utilities that are uploaded onto our SAP system provide costs only. In order to calculate the MWh consumption numbers, the Company has applied generic cost per MWh factors, as provided by the Hydro Quebec Analysis. Data uncertainty could exist where utility cost variances occur based on the time of use of electricity as opposed to the quantity of use of electricity.</p> <p><b>Use of generic factors to calculate GHG emissions</b></p> <p>Conversions into GHG emissions are based on the generic GHG emission factors as provided through the Canadian GHG National Inventory and not the utility factors.</p> <p>We will be working over the next years to obtain detailed utility invoicing to effectively capture electricity consumption and emission factors.</p> |

## 14. Contractual Arrangements Supporting Particular Types of Electricity Generation

14.1-14.3 Grid average factors for Scope 2 reflect contractual obligations.

Yes.

14.4 Retirement of certificates (e.g. Renewable Energy Certificates) associated with zero or low carbon electricity.

No. We have not retired any certificates associated with zero or low carbon electricity.

## GHG Emissions Accounting, Intensity, Energy and Trading

### 15. Scope 3 Other Indirect GHG Emissions

#### 15.1 Sources of Scope 3 Emissions.

The source of GHG emissions from employee business travel is not readily available at this time. Once we have developed a robust data management system for Scope 1 and 2 emissions, we expect to be in a better position to compile Scope 3 data.

| Sources of Scope 3 Emissions                        | Emissions (in metric tones of CO <sub>2</sub> -e | Methodology | If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions. |
|-----------------------------------------------------|--------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------|
| Employee business travel                            | N/A                                              | N/A         | N/A                                                                                                       |
| External distribution and logistics                 | N/A                                              | N/A         | N/A                                                                                                       |
| Use and disposal of company's products and services | N/A                                              | N/A         | N/A                                                                                                       |
| Company supply chain                                | N/A                                              | N/A         | N/A                                                                                                       |
| Other                                               | N/A                                              | N/A         | N/A                                                                                                       |

Scope 3 indirect GHG emissions are not readily available at this time. Since a majority of our GHG emissions are generated from locomotive diesel consumption, we have focused our GHG measurement, reporting and reduction efforts on our locomotive emissions. In the coming years, we will be working to develop a more comprehensive GHG data collection and management system. Once we have developed a system for Scope 1 and 2 emissions, we expect to be in a better position to work towards Scope 3 data compilation.

### 16. Emissions Avoided Through use of Goods and Services

#### 16.1 and 16.2 Emissions avoided through the use of goods and services.

The use of rail for freight transportation can provide sizeable emission reductions to our customers shifting from other less carbon efficient transportation choices. Over the past few years, CN has been working with the Alberta government to develop and approve a modal shift quantification protocol. In May 2008, the quantification protocol was approved by the Alberta government, providing the basis upon which GHG reductions achieved from shifting from truck to rail are to be quantified. In 2009, we worked with our customers to enhance the protocol. The following is a summary of the information applied for the emission avoidance estimations:

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Estimated Timescale | » The estimated timescale over which the emissions are reduced is based on the net amount of baseline truck transportation that has been shifted to rail during a project time period;                                                                                                                                                                                                                                                                                                                               |
| Methodology         | » The methodology is based on the detailed specifications as defined in the Quantification Protocol for Freight Modal Shifting (see attached). The protocol provides a method for calculating the GHG emission reductions from shifting baseline truck freight transport to project rail freight transport. This activity results in emission reductions given the significantly higher fuel consumption and associated GHG emission rates of trucks as compared to rail per amount and distance of freight shipped. |

## GHG Emissions Accounting, Intensity, Energy and Trading

### 16. Emissions Avoided Through use of Goods and Services (cont.)

#### Key Assumptions

Three key assumptions have been developed to account for the complex array of factors that can influence emissions, as follows:

- » First, since complications can arise when there is a lack of data to account for the detailed truck and rail routing configurations a simplified quantification approach has been developed. The simplified approach uses average and conservative emission factors and assumptions to allow for the recognition of emission reducing modal shifting when detailed per-shipment project data is not available.
- » Second, since emission reductions from a single shipment of goods will be very small, the protocol is intended to be used for the aggregation of emission reductions from all shipments initiated by a particular producer or aggregator of goods.
- » Third, in order to accurately compare the GHG emissions of rail transport to truck transport, the protocol assumes a common project and baseline function of freight transportation, and a functional unit of revenue ton-kilometres (RTK) shipped, representing the product of the mass of freight shipped and the distance the freight is shipped.

#### Emission sources

The emissions sources and sinks are identified in the protocol.

#### Global Warming Potentials

Global warming potentials are those used by Environment Canada.

In addition, we also provide a GHG calculator on the CN website to estimate GHG emissions when shipping with CN versus other transportation modes. In general, the calculator is based on the same quantification methodology as set out in the modal shift quantification protocol, except for the value applied for truck weight, which is a customizable function in the calculator.

### 17. Carbon dioxide emissions from biologically sequestered carbon

#### 17.1 Global carbon dioxide emissions from biologically sequestered carbon.

We do not generate carbon dioxide from biologically sequestered carbon. At the current time, the use of bio-fuels in the rail industry is still at a research and development phase. We continue to monitor developments in this area.

# GHG Emissions Accounting, Intensity, Energy and Trading

## 18. Emissions Intensity

18.1 Scope 1 and 2 financial emission intensity measurement.

| Type of emission intensity measurement | Units                                                                                                            | The resulting figure for Scope 1 and Scope 2 emissions                                            | Contextual details relevant to understand units                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Financial                              | The financial emission intensity measurement for our reported GHG emissions (Scope 1) is based on total revenues | 0.0006 tonnes of CO2e per dollar of revenue earned                                                | Total tonnes of GHG emissions in CO2-e (4,462,753) ÷ \$CDN million total revenues (7,367,000,000)                                                                                                                                                                                                                                                                                                                                                                                                              |
| Activity-related                       | Gross Ton Miles                                                                                                  | The resulting activity related intensity figure is 0.00001464 tonnes of CO2-e per gross ton mile. | <p>The activity related intensity measurement for our reported GHG emissions (Scope 1) is Gross Ton Miles.</p> <p>The Gross Ton Miles is the number of tons behind the locomotives (cars and contents) including company service equipment multiplied by the miles of road moved from originating to destination stations on a designated railroad.</p> <p>The activity related intensity calculation is based on the following measurement:<br/>Total tonnes of GHG emissions in CO2-e ÷ Gross Ton Miles.</p> |

## 19. Emissions History

19.1 Absolute emissions (scope 1 and 2) variation compared to previous years.

Since the scope of our reporting has been extended to include other non-locomotive fuel consumption and electricity consumption, we cannot currently compare our total combined scope 1 and scope 2 absolute emissions with previous years.

At the same time however, we can compare the absolute emissions from our scope 1 fuel consumption associated with the use of our locomotives, where we have noted a 14 % reduction between 2008 and 2009.

19.2 Explanation for variance.

In reviewing our locomotive scope1 emissions, however, we experienced a decrease of approximately 14 %. The 14% reduction can be attributed to the economic downturn in 2009, which resulted in less locomotive activity, as well as in part by the greater efficiencies realized through the Company's operations (including greener fleets, precision railroading and other specific operational improvements).

# GHG Emissions Accounting, Intensity, Energy and Trading

## 20. External Verification / Assurance

20.1 Percentage of reported emissions that have been verified.

|                                                                               | Scope 1                                                                                                                                                | Scope 2 | Scope 3 |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| Percentage of reported emissions that have been externally verified / assured | 100% verification of our locomotive fuel consumption numbers.                                                                                          | 0%      | N/A     |
| Include the verification / assurance statement                                | Please see attached CN 2008 financial annual report verification statement as presented on pages 60 and 61. See attached 2009 Financial Annual Report. | N/A     | N/A     |

## 21. Emission Trading and Offsetting

21.1 and 21.2 Participation in Emission Trading Schemes.

We are not currently required to participate, or are participating, in any emission trading schemes.

21.3 Strategy for complying with anticipated schemes.

At present, we are not required to participate in any trading schemes. Our immediate carbon strategy is focused on engagement with the various North American trading regimes to understand how to optimize the carbon benefits of rail freight transportation through the approval of a modal shift quantification protocol, as well as credits to be gained from locomotive efficiency improvements.

With respect to the modal shift quantification protocol, the protocol has been approved by the Alberta and British Columbia governments, and is currently under review / consideration by the WCI. We are also monitoring developments under the WCI, to understand any obligations that may affect our business, as well as other opportunities for carbon trading. We are especially interested in continuing to explore the opportunities to gain carbon credits from various locomotive and non-locomotive efficiency improvements.

21.4 Origination of project-based carbon credits.

| Credit Origination / credit purchase | Project Identification                                                         | Project documentation URL | Verified to which standard | Number of credits (metric tonnes CO2e) | Credits retired | Purpose e.g. compliance        |
|--------------------------------------|--------------------------------------------------------------------------------|---------------------------|----------------------------|----------------------------------------|-----------------|--------------------------------|
| Credit Origination                   | Replacement of rail freight diesel locomotives during the period 2003 to 2007. | See below                 | ISO 14064                  | 160ktCO2e.                             | None.           | Future credit for early action |
| Credit Origination                   | Shifting baseline truck freight traffic to rail locomotives                    | See below                 | N/A                        | N/A                                    | N/A             | For use by our customers       |

# GHG Emissions Accounting, Intensity, Energy and Trading

## 21. Emissions Trading and Offsetting

21.5 Origination of project-based carbon credits (Involvement).

### Modal Freight Transportation Carbon Credit Opportunities

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Role                       | CN has played an active role in the development of a quantification protocol to provide shippers with carbon credits for shifting freight from truck to rail. Through its development, CN actively engaged various stakeholders, including customers and governments, to ensure the applicability and eligibility of the protocol. It is important to note that the ownership of carbon credits will be the sole responsibility of our customers, who will take on the role of project proponent.                                                                       |
| Location and Technologies involved | The modal shift protocol provides a method for calculating greenhouse gas (GHG) emission reductions that occur from shifting baseline truck freight traffic to rail locomotives. The protocol can be applied throughout North America, enabling shippers to take advantage of the carbon credit opportunities presented from larger shipments travelling longer distances.                                                                                                                                                                                              |
| Project Standard / Scheme          | The modal shift quantification protocol has been approved under the Alberta Greenhouse Gas (GHG) Offset System and the British Columbia cap and trade system. We are currently working with other North American policy makers to pass the protocol through for approval, including the Canadian Federal GHG Regime, and the Western Climate Initiative.                                                                                                                                                                                                                |
| Validation / Verification          | To date, the protocol has not yet been used to obtain carbon credits. We are currently working with a customer (s) within the province of British Columbia and Alberta to establish the first modal shifting project. Since the protocol has not yet been applied to obtain credits, there have been no credits validated or verified. In addition, CN will not be involved in the validation or verification of credits. Instead, it will be the responsibility of our customers to ensure the credibility of the credits, since they will ultimately own the credits. |
| Annual volumes of carbon credits   | There have been no carbon credits generated as a result of the protocol. We are working with other regimes to enable the universal application of the protocol throughout North America. Projected credits from the protocol will ultimately depend on traffic volumes that have switched from truck to rail. We are yet to establish a projected figure.                                                                                                                                                                                                               |
| Retirement method                  | The retirement method has not been applied since our customers have not yet applied the protocol to obtain carbon credits.                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## GHG Emissions Accounting, Intensity, Energy and Trading

### 21. Emissions Trading and Offsetting *(cont)*

21.5 Origination of project-based carbon credits (Involvement).

#### Fuel Efficiency Carbon Credit Opportunities from Locomotive Replacements

|                                    |                                                                                                                                                                                                                                                    |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Role                       | CN took on the role of project proponent to calculate the potential carbon reductions realized from the replacement of older locomotives with newer fuel-efficient newer models. The ownership of carbon credits is the sole responsibility of CN. |
| Location and Technologies involved | The project origination took place for our operations in Canada and the US. The project involved the replacement of rail freight diesel locomotives during the period 2003 to 2007.                                                                |
| Project Standard / Scheme          | The Standard that we applied was the ISO 14064 Standard, which is internationally recognized.                                                                                                                                                      |
| Validation / Verification          | Yes. The credits had been externally validated.                                                                                                                                                                                                    |
| Annual volumes of carbon credits   | The total volume of carbon credits / reductions generated between 2003-2007 was approximately 160ktCO <sub>2</sub> e.                                                                                                                              |
| Retirement method                  | These credits are currently being banked and have not yet been retired.                                                                                                                                                                            |

An abstract graphic featuring four circles of varying shades of gray and white, connected by a network of thin gray lines. The circles are arranged in a roughly square pattern, with lines connecting them in a web-like structure. The background is a solid light gray.

# **Climate Change Communications**

## Climate Change Communications

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### 22. Climate Change Communications

22.1 Existence of informational publications on climate change risks and opportunities.

Yes.

22.2 Information provided in annual report or other mainstream filings.

The risks and opportunities presented to the Company, as well as emissions and plans to reduce emissions are provided in the following documents:

- » Annual Report
- » Investor Fact Book.

Both these reports can be accessed at the following website: <http://www.cn.ca/en/investors-financial-quarterly-releases-dividends.htm>

22.3 Other voluntary communications.

We provide information on CN's climate change performance at the following publically available information sources:

- » CN's website [www.cn.ca](http://www.cn.ca)
- » Delivering Responsibly Report [www.cn.ca/delivering\\_responsibly](http://www.cn.ca/delivering_responsibly)
- » Locomotive Emissions Monitoring Program reports published by Environment Canada. Reports are available on the website of the Railway Association of Canada.