



TRANSPORTING QUÉBEC TOWARDS MODERNITY

SUSTAINABLE MOBILITY POLICY - 2030

Rail Transportation
Intervention Framework

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1. Rail Transportation in Québec

This document is an integral part of the Sustainable Mobility Policy to 2030. It presents an overall portrait of the rail transportation sector in Québec, its issues and all measures related to the 2018–2023 Rail Transportation Action Plan. The most promising and cross-sectional measures in this sectoral action plan also appear in the 2018–2023 Sustainable Mobility Policy Action Plan.

The Rail Transportation Intervention Framework is a key component of the Sustainable Mobility Policy vision: In 2030, Québec will be a North American leader in 21st-century sustainable and integrated mobility. In a territory planned with a view to sustainable mobility, it will have a high-performance, safe, connected and low-carbon transport ecosystem that contributes to Québec's prosperity and meets the needs of people and businesses.

Current situation

Rail transportation plays a leading role in Québec's economy, by transporting large volumes of goods and millions of passengers. It is essential to the operation of the economy and Québec's prosperity in terms of both internal movement in Québec and external trade. In 2015, rail transportation contributed \$1.1 billion to Québec's economy, representing about 0.4% of GDP. It generated economic benefits in the order of \$1.5 billion¹. The 6,635 rail workers in Québec represent 19.6% of the Canadian total².

Québec rail network boasts about 6,300 km of railroads, which are an integral part of the larger North American network³. Of this number, 1,714 km (27%) are under the jurisdiction of Québec. This jurisdiction covers shortline railroads (SLR)⁴, some corporate railroads⁵ and other classes of railroads such as the Réseau de transport métropolitain (RTM) and tourism trains. Class 1 railroads⁶, some SLR with tracks that extend over more than one province, corporate railroads and other railroads, such as the Port of Montréal railroad, are under federal jurisdiction.

In Québec and across Canada, a proven regulatory system governs rail transportation. Railroad companies must comply with many regulations and safety rules that control traffic and limit train speed, and they must ensure adequate inspection and maintenance of the tracks and rolling stock.

¹ Statistics Canada. CANSIM database, Table 379-0030.

² Cargo M. KPMG.

³ The Québec railroad network map (in French only) can be found on the website of the ministère des Transports, de la Mobilité durable et de l'Électrification des transports: <https://www.transports.gouv.qc.ca>.

⁴ The SLRs are railroad companies that operate a so-called secondary or low-density railway, generally connected to a Class 1 railroad, with activities heavily focused on freight transportation.

⁵ Corporate railroad companies generally transport goods for the businesses that own them.

⁶ The Class 1 railroads in Québec are the Canadian National Railroad (CN), the Canadian Pacific Railroad (CP), CSX and VIA Rail Canada Inc. (VIA Rail).

The importance of rail transportation for sustainable mobility⁷ in Québec

For many years, the railroads have contributed to sustainable passenger and freight mobility.

> Passenger transportation

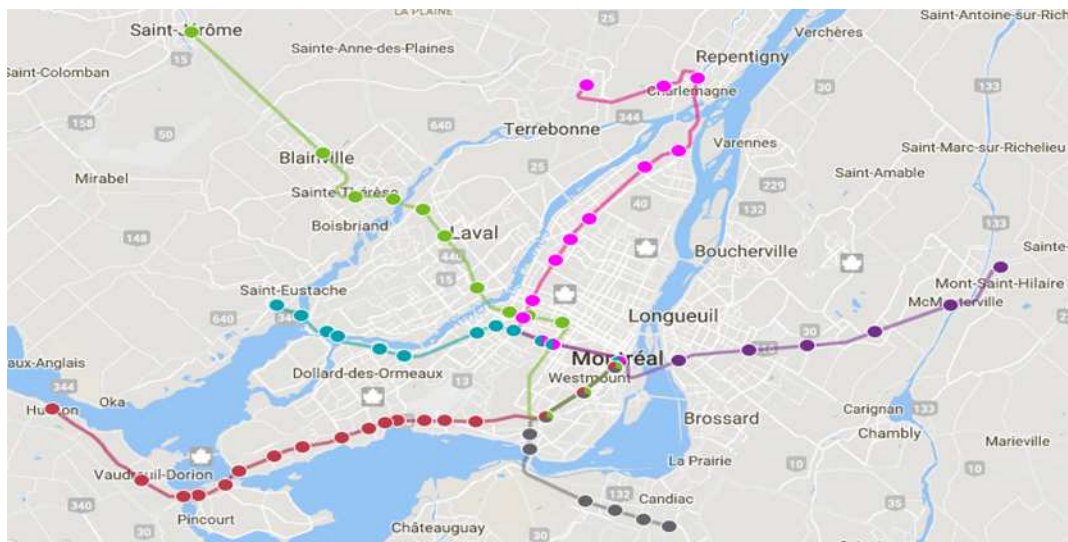
When passengers use rail transportation, they are choosing a comfortable, safe, affordable and low-pollution mode of transportation that allows them to travel to many locations in Québec. The Greater Montréal region is especially well served by commuter trains that allow passengers to access many different areas, including downtown Montréal, and avoid the inconvenience of road congestion.

Rail transportation in metropolitan Montréal

The first commuter train service in Montréal dates back to the end of the 19th century, but it was not until January 1, 1996, that it received a boost with the creation of a “temporary” service on the Deux-Montagnes line to mitigate the impact of road work. This service became permanent when the authorities realized how popular it was. The Agence métropolitaine de transport (AMT), then responsible for commuter train management, was replaced by the Réseau de transport métropolitain (RTM) on June 1, 2017.

The network operated by the RTM now includes 62 stations on six lines extending over 254 km (Figure 1). These lines serve the metropolitan region of Montréal from Deux-Montagnes⁸, Vaudreuil-Hudson, Blainville–Saint-Jérôme, Mont-Saint-Hilaire, Candiac and Mascouche. They all have terminals in Lucien-L’Allier station and Central Station, in downtown Montréal. The schedules are coordinated with the bus routes of the various transit corporations and the Montréal metro. The RTM uses its own rolling stock, which travels mainly on CN and CP tracks. With over 19.5 million passengers per year—over 83,000 per day⁹—the RTM trains are the second most used in Canada.

Figure 1: Commuter train network in metropolitan Montréal



⁷ http://www.environnement.gouv.qc.ca/developpement/strategie_gouvernementale/strategie-DD.pdf

⁸ This line will be transferred to CPDQ Infra as part of the Réseau express métropolitain (REM) project.

⁹ AMT 2016 Annual Report, p. 43.

The REM is a major public transit project that will welcome its first users in metropolitan Montréal by 2021. This new, fully electric network will offer an efficient and accessible transportation solution that is well connected to existing networks. It will be a major incentive to the use of public transit in five strategic sectors of the metropolitan region, efficiently linking the suburbs of Brossard (South Shore), Sainte-Anne-de-Bellevue (west of the island of Montréal) and Deux-Montagnes (North Shore), as well as the Montréal-Trudeau airport and Central Station, located in downtown Montréal.

This \$6.3 billion project, led by CDPQ Infra, a subsidiary of the Caisse de dépôt et placement du Québec (CDPQ), is an entirely automated electric light rail system. The Québec government has confirmed that it will invest \$1.28 billion in the project. Train frequency during peak periods will be lower than in the metro, but considerably higher than commuter train frequency. With 67 km of double tracks, the REM will be the fourth-largest automated transportation network in the world, after Singapore's (82 km), Dubai's (80 km) and Vancouver's (68 km).

Rail transportation in the Québec City region

Unlike Montréal, Québec City has no commuter train service, but to improve travel in its territory and region, Québec City unveiled a plan for a structuring public transit network, in March 2018. This sustainable mobility project, assessed at \$2.9 billion, will consist of a multimodal transportation network built around a 23-km tramway, with 3.5 km underground. The structuring public transit network will signal the return of tramways, which were used in Québec City until 1948.

The Québec government has confirmed its commitment to the project and promised to make it a priority for federal financial aid programs. The network is expected to be in full service by fall 2026.

Intercity rail transportation

With the popularity of car and plane travel beginning in the 1960s, the intercity passenger rail transportation services offered by Canadian National (CN), at that time a federal crown corporation, and Canadian Pacific (CP), dropped off steeply. The two major railroad companies no longer wanted to finance these services, which began to suffer heavy losses, so, in 1977, the Canadian government decided to create VIA Rail, following in the footsteps of the United States, which had created Amtrak in 1971 under the same circumstances.

Since then, VIA Rail has taken charge of intercity passenger rail transportation, and its trains ply a 12,500-km network across Canada. The network is 97% owned and operated by freight railroad companies, mainly CN and CP. VIA Rail serves 400 communities across the country. In 2014, in the Québec City-Windsor corridor alone, VIA Rail accommodated 3.97 million passengers and travelled 1.3 billion kilometres. Figure 2 shows the VIA Rail corridors that are connected to Québec.

Figure 2: VIA Rail corridors connected to Québec¹⁰



For some years now, VIA Rail has been promoting a high-frequency train (HFT) between Québec City and Toronto. This train, slower than a high-speed train (HST), would offer hourly departures (except at night) along the corridor. In March 2016, the federal government announced that it would offer \$3.3 million over three years to support an in-depth assessment of VIA's HFT plan. In its 2018 budget, the federal government committed an additional \$8 million over three years to support the in-depth assessment. The alignment of the HFT and the planned REM now calls for potential cohabitation in the Mount Royal tunnel, which provides access to Central Station from Québec City.

In addition to VIA Rail, the Adirondack train, which belongs to the US national passenger transportation company Amtrak, links Montréal to New York City by way of Albany. In total, over 90,000 trips cross the border in both directions each year. Within a few years, Montréal may have a second rail link to the United States with the possible extension of Amtrak's *Vermont* train service to Montréal. This train, known as the *Montrealer*, connected Washington to Montréal, passing through the Connecticut River Valley, until 1995. Since then, it has stopped at St. Albans, in Vermont, about 25 km south of the border. The return of the *Vermont* to Montréal could re-create a Montréal-Boston link, a first since 1965.

One of the particularities of passenger train transportation is that the lines do not belong to the operators, with the exception of the planned REM and a few others. This means that their operation is dependent on the priorities given to freight transportation and operators have to negotiate agreements to be able to use the tracks of some railroad companies.

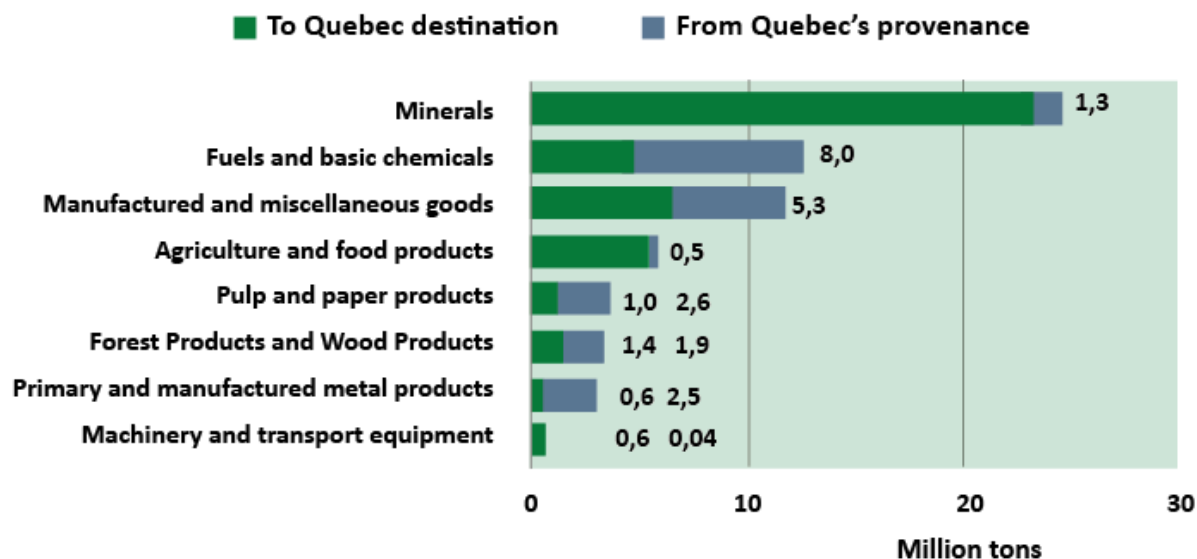
Finally, there has been a modest expansion of tourism trains in Québec, which has allowed some regions to showcase their attractions, landscapes and heritage train stations.

¹⁰ For safety reasons, the VIA Rail service between Matapédia and New Carlisle has been interrupted since August 2013. Between New Carlisle and Gaspé, the service has been interrupted since December 2011.

> **Freight transportation**

Freight transportation by rail plays a crucial role in our lives and our economy, in particular by helping Québec businesses to be more competitive. Railroad companies offer efficient, safe, economical and sustainable transportation services for all types of goods—bulk, industrial products and consumer products (Figure 3).

Figure 3: Principal goods transported by railways in the Québec market, 2009 (million tons)¹¹



According to the origin and destination statistics for goods transported by rail compiled by Statistics Canada, in 2009, 60.8 Mt of goods transported by rail had an origin or destination in Québec, which represents 25.9% of the total tonnage transported by rail in Canada.

The tonnage of goods transported by railroad companies remained relatively stable in Québec between 2001 and 2009, ranging between a low of 60.8 Mt (2009) and a high of 68.3 Mt (2005)¹². This relative stability is in contrast to the increase observed in Canada at the beginning of this same period, followed by a significant decline in 2008 and 2009.

Railroads serve almost all sectors of the Québec economy, from manufacturing to agriculture and natural resources to wholesale and retail commerce. Rail transportation also helps reduce traffic on the road network and the risk of accidents, greenhouse gas (GHG) emissions and the cost of maintaining the road network, as well as attracting businesses that require railroad access. One of the main advantages is that with a single litre of fuel, a railroad can move a metric ton of goods over 200 km¹³.

¹¹ CPCS (June 2012). Étude multimodale du transport des marchandises au Québec en appui aux plans territoriaux de mobilité durable, CPCS (Bloc 1: Mise à jour et exploitation des informations existantes – Volume 2 of 2).

¹² Op. cit.

¹³ Railway Association of Canada website.

The main Canadian Class 1 railroads that transport freight, CN and CP, had earnings of over \$18 billion in 2016. These two railroads and the SLR throw open the doors of trade to businesses in Québec. The SLR offer an essential service in many regions by exchanging the flow of merchandise with the main railroads and allowing the manufacturing and resource sectors to access world markets.

In the face of fierce competition and the liberalization of commercial trade, particularly on the north-south axis, it is indispensable to maintain an effective, high-performance transportation network that draws on all modes of transportation, in part to meet market requirements and in part to comply with the increasingly stringent social and economic constraints weighing on road administrations. In this regard, rail transportation is an essential tool thanks to its presence all across the territory, its efficiency in handling large volumes of freight or heavy freight and, finally, its relatively low cost for long trips. For these reasons, it is important to maintain and strengthen the competitive assets of the Québec rail network.

The Québec government's role in rail transportation

The major changes that rail transportation has undergone in the last thirty years, including a significant reduction in the extent of the network resulting from the closure of non-profitable lines after the introduction of the National Transportation Act in 1987¹⁴ and the Canada Transportation Act in 1996¹⁵, have led the Québec government to implement a variety of legislative and financial measures to preserve a basic rail transportation network essential to the economic and social development of the regions of Québec.

The Québec government exercises legislative and regulatory responsibilities concerning several SLR, some corporate railroads, the industrial sites that use rail equipment in the management of their activities and other rail services such as those of the RTM and the tourism trains.

In Québec, the regulatory framework for rail safety includes government laws and regulations as well as the safety rules adopted by the railroad companies and approved by the ministère des Transports, de la Mobilité durable et de l'Électrification des transports (MTMDET), safety rules imposed by the Minister and engineering standards. In short, two laws govern rail transportation in Québec: The Railway Act¹⁶ and the Act to Ensure Safety in Guided Land Transport¹⁷. With few exceptions, these two laws apply to railroads under the legislative authority of Québec.

By law, the primary responsibility for railroad safety belongs to the railroad companies, for railroads under either federal or Québec jurisdiction. It is up to the railroad companies to demonstrate safe management by eliminating or reducing risks. The MTMDET ensures that these companies use every means at their disposal to ensure the safe operation of their equipment. The MTMDET therefore inspects the facilities of all these companies and, if required, investigates accidents or events that occur on the network under Québec's jurisdiction. Furthermore, the MTMDET pays special attention to the maintenance and safety improvements on grade crossings in some 500 municipalities through which railroads pass. To this end, it manages three assistance programs for municipalities and the rail industry.

¹⁴ <http://laws-lois.justice.gc.ca/eng/acts/C-10.4/>.

¹⁵ <https://tc.gc.ca/eng/acts-regulations/acts-1996c10.htm>.

¹⁶ <http://legisquebec.gouv.qc.ca/en/ShowDoc/cs/C-14.1>.

¹⁷ <http://legisquebec.gouv.qc.ca/en/ShowDoc/cs/S-3.3>.

Financial assistance programs set up by the ministère des Transports, de la Mobilité durable et de l'Électrification des transports to support rail transportation and contribute to sustainable mobility

1. **Programme d'aide à l'amélioration de l'efficacité du transport maritime, aérien et ferroviaire en matière de réduction ou d'évitement des émissions de gaz à effet de serre (Assistance program to improve the efficiency of maritime, air and rail transportation in reduction or avoidance of greenhouse gas emissions or PETMAF).** This program, funded by the Fonds vert, seeks to reduce or eliminate greenhouse gas (GHG) emissions by improving the energy efficiency of maritime, air and rail transportation through the use of more efficient transportation materials and equipment and the use of low-GHG energy sources.
2. **Programme visant la réduction ou l'évitement des émissions de gaz à effet de serre par le développement du transport intermodal (Program for the reduction and avoidance of greenhouse gas emissions by the development of intermodal transportation or PREGTI).** This program is funded by the Fonds vert and its objective is to reduce or eliminate the greenhouse gas (GHG) emissions generated by freight and passenger transportation by introducing intermodal projects and promoting maritime and rail services.
3. **Programme d'aide aux passages à niveau municipaux (municipal grade crossings assistance program or PAPNM).** The signalling maintenance aspect of the program provides financial support for municipalities for signalling maintenance at grade crossings on the road network, a responsibility that was transferred to them on April 1st, 1993. The safety improvement aspect finances safety improvement projects at grade crossings that present a specific safety problem.

The Québec government also owns two railroads, the Gaspésie railway network and the Québec-Central railway. It is in charge of the maintenance, conservation, rehabilitation and development of their infrastructures. In 2018, the Chemin de fer Québec Central operates on the branch connecting Lévis and Scott, while the Chemin de fer de la Gaspésie operates between Matapédia and Caplan.

On May 5, 2017, the government announced that it would rehabilitate the entire Gaspésie railway network, from Matapédia to Gaspé. The sum of \$100 million, drawn from the Québec Infrastructure Plan, has been earmarked for this project which will involve extensive restoration and maintenance work. A project monitoring office has been established with the community, with representatives from the MTMDET, the Société du chemin de fer de la Gaspésie, regional elected officials and local socio-economic players.

The Québec government is currently working to extend the network operated by the Gaspésie railway network. It also intends to extend to Québec Central railway to Vallée-Jonction. The possibility of extending the network from Vallée-Jonction to Thetford Mines is being assessed.

On a more urban scale, the Québec government's jurisdiction over rail transportation is carried out by the RTM, which has the mandate to manage commuter trains in metropolitan Montréal. The RTM reports to the Autorité régionale de transport métropolitain (ARTM) which receives its orders from the MTMDET. For some forty years, the number of urban trips has been rising, due, in part, to demographic change and the development of major roads which open new spaces to urbanization. Urban congestion and increasingly long and difficult commutes have supported the development of other types of public transit.

Finally, the Commission des transports du Québec (CTQ) is the body that issues the authorization

(certificate of fitness) to operate a railroad under the Québec government's jurisdiction. The CTQ can also serve as an arbitrator or mediator in the settlement of disputes between shippers and rail carriers on any matter or service condition.

Trends and outlook to 2030

Trend 1: Improvement of rail safety

The safety of rail transportation goes far beyond Canada's borders and it will always be a concern and priority for all stakeholders, for the transportation of passengers or freight. Efforts will continue to be deployed to ensure that rail traffic is extremely safe, even during periods of high growth.

The measures taken by the various levels of government and private business, as well as the arrival of innovative safety technologies, have helped steadily reduce accident rates. In Canada, between 2011 and 2015, the rate of accidents in the freight transportation sector declined by 2.4%, while the rate of accidents in the passenger transportation sector declined by 6.1%¹⁸. Improving safety culture in transportation organizations is the key to accident prevention in this sector. Regulatory amendments also steadily improve safety.

Trend 2: Rail transportation, a green choice

With its significant fuel savings, rail transportation is one of the greenest means of transportation. Some users choose it for its energy performance. Environmental management is a priority for the industry. The railroad companies are making major changes to their operating methods and investing continuously in new technologies to reduce their environmental footprint.

Producing only 1% of GHG emissions in Canada, rail transportation is on average four or five times more energy-efficient than road freight transportation. A single locomotive can transport a ton of merchandise over 200 km on a single litre of fuel, removing over 300 trucks from the roads. Likewise, every train of passengers replaces hundreds of cars, which helps reduce GHG emissions and improve travel time¹⁹. Rail transportation is therefore an indispensable part of the climate change solution.

Trend 3: Increasingly integrated transportation services

The efficiency sought by a more competitive economy leads to the better use of different modes of transportation within integrated logistics chains. Railroad companies have been strongly encouraged to adapt to the needs of their customers, provide more integrated services across the entire continent and make better use of multimodality.

Agreements are often concluded between railroad companies and other transportation businesses to adapt to the needs of shippers by reducing delivery time and improving on-time delivery. More and more railroad companies are now able to offer integrated transportation services (for example, rail, intermodal, trucking, freight forwarding, transshipment and distribution), but optimal usage and better integration of modes require the development of a complementarity that cannot be achieved without a partnership among the representatives of the various modes.

¹⁸ Railway Association of Canada (2016). *Rail Trends 2016*.

¹⁹ Railway Association of Canada website. <https://www.railcan.ca/> ou <https://www.railcan.ca/101/safely-transporting-dangerous-goods/>.

2. Sustainable Mobility Issues Related to Rail Transportation

Issue 1: Longevity of rail transportation infrastructures

After CN and CP shut down their non-profitable lines, the Québec government amended the Railway Act²⁰ to save as many lines as possible, supporting the creation of the shortline railroads (SLR). Despite being managed by the SLR, the future of these lines is not guaranteed. The infrastructures acquired by the SLR are often in bad shape and considerable investments are sometimes required to restore them. This issue is especially important because the Canada-Québec Agreement on the Rehabilitation of Railroad Infrastructures, which invested \$75 million in the SLR in Québec, ended in 2013.

The ageing of rail infrastructures and the negative effects of increasing climate change means that some of these lines require major repairs and upgrading to continue to fulfil their role as efficiently as possible and meet the growing demand associated with commercial trade. Many of the infrastructures also need to be adapted to the effects of climate change. The market needs adequate rail infrastructures and related transshipment and high-performance handling services for this mode of transportation to be used to its best capacity.

Issue 2: Safety and security of passenger and freight rail transportation

Since the rail accident at Lac-Mégantic on July 6, 2013, and in light of the constant increase in the transportation of dangerous goods on Québec's railroads, the safety of rail transportation has become an issue of particular concern for the public and for all private and public stakeholders. Since that tragedy, the various stakeholders, including the federal government, the Québec government and the railroad companies, have implemented a variety of measures to prevent rail accidents.

The safety of a mode of transportation, often translated into the rate of incidents, accidents and deaths, is essential to the pursuit of economic and social development in the regionals of Québec, as well as the mobility of the members of the community, its reputation, its competitiveness and its social acceptability. Railroad companies have made this a priority. This is why they invest considerable money each year in technology and rolling stock in order to be able to operate trains more safely. According to the Railway Association of Canada²¹, hundreds of thousands of cars full of dangerous goods are shipped every year and 99.999% of them arrive safely at destination with no spills caused by an accident. This is a safety record that the industry wishes to maintain at any price.

Many people are also worried about security, especially after the September 11 attacks. The rising threat across the world against strategic assets has affected everyday life and the way businesses operation, including transportation businesses. Railroad companies are making big efforts to respond to these concerns and continue to offer secure, reliable transportation for passengers and freight.

Issue 3: Optimal use of passenger and freight rail transportation

The transportation industry is a pillar of Québec's economy and essential to the people's quality of life and the province's prosperity, but changes are required in the passenger and freight transportation system to support Québec's full potential and achieve the GHG emissions reduction targets it has set.

²⁰ *Op. cit.*

²¹ Railway Association of Canada web site.

Road congestion, increased travel time, the large portion of the family budget dedicated to transportation, the increase in trade, the fight against climate change and the cost of road maintenance are all factors that offer incentive to use more sustainable means of transportation. To strengthen the competitiveness of our economy, it is essential for people and businesses to be able to rely on an accessible, fluid, integrated, high-quality passenger and freight transportation system. To this end, the optimal use of rail transportation for the movement of people and goods is a major issue for sustainable mobility.

Issue 4: The environmental footprint of rail transportation and safe, harmonious cohabitation around railway facilities

In its 2013–2020 Climate Change Action Plan (2013–2020 CCAP)²², the Québec government presents tools for achieving the GHG emissions reduction target and reinforcing Québec’s resilience to the impact of climate change. As the 2006-2012²³ Action Plan puts it, the transportation sector is of capital importance in GHG reduction efforts.

The transportation industry is the biggest GHG emitter in Québec, contributing nearly 43% of emissions in 2013²⁴. Although rail transportation is one of the greenest means of transportation, generating about 1%²⁵ of total emission in Québec, it must pursue its efforts to reduce its environmental footprint through greater energy efficiency, process improvement, innovation and the deployment of new technologies. This will allow it to remain a productive and sustainable player in Québec’s economy.

The facilities related to rail transportation, such as stations and marshalling yards, are often located in the urban environment, resulting in an unfortunate proximity between rail and residential activities, which are usually incompatible. Noise, movement of trains, vibrations, electromagnetic waves emitted by the electrified lines and poor air quality (particles, odors) are among the nuisances most often cited in the surrounding urban areas.

Furthermore, the low availability of land in cities may encourage the increasing proximity of new real estate projects to existing industrial and rail activities. In many cases, these situations are the result of urban planning that does not take the disadvantages of this proximity into account. Short-, medium- and long-term planning of urban usages and buffer zones are indispensable to assure sustained growth of rail activities and safe, harmonious cohabitation around rail facilities.

3. 2018–2023 Rail Transportation Action Plan

Issue 1: Longevity of rail transportation infrastructures

INTERVENTION PRIORITY 1.1: UPGRADE RAIL INFRASTRUCTURES AND ENSURE THEIR VIABILITY

To support the economic and social development of the regions of Québec, the MTMDÉT’s interventions will foster the safety, longevity, competitiveness and accessibility of rail transportation, in part through the maintenance of infrastructures and a viable rail network.

²² <http://www.mddelcc.gouv.qc.ca/changements/plan-action/pacc2020.pdf>.

²³ http://www.mddelcc.gouv.qc.ca/changements/plan_action/2006-2012_en.pdf.

²⁴ <http://www.mddelcc.gouv.qc.ca/changementsclimatiques/programmes.htm>.

²⁵ <http://www.mddelcc.gouv.qc.ca/changements/ges/2013/inventaire1990-2013.pdf>.

Measure 1: Renew and improve the Modal Integration Assistance Program

The Modal Integration Assistance Program ended in 2011. One of its objectives was to maintain rail infrastructures in Québec to ensure the integrity of Québec's transportation system and improve the condition and functionality of the rail infrastructures operated by publicly owned SLR. Since 2011, the MTMDET has had no rail infrastructure assistance program other than the GHG emissions reduction programs related to the Fonds vert²⁶. Experience of previous and current programs demonstrates that many projects can have an immediate impact on infrastructure upgrades without being clearly related to the identifiable reduction or avoidance of GHG emissions.

Indicator: Implementation of the Modal Integration Assistance Program

Target: Implementation of the program in 2018

Budget: \$20 million (additional funds)

Measure 2: Rehabilitation the entire Gaspésie railway network, from Matapédia to Gaspé

The Québec government is currently working to rehabilitate the entire Gaspésie railway network, from Matapédia to Gaspé, as announced by the Québec government on May 5, 2017. The sum of \$100 million has been set aside for this project under the Québec Infrastructure Plan, to carry out major restoration and maintenance work.

Indicator: Progress of the Chemin de fer de la Gaspésie rehabilitation project, based on steps set out in the Directive sur la gestion des projets majeurs d'infrastructure publique

Target: Rehabilitation of the entire railway network completed

Budget: \$12.5 million (additional funds for the implementation of the next operating agreement with the Société du chemin de fer de la Gaspésie)

Measure 3: Maintain and upgrade the Québec Central railway between Charny and Vallée-Jonction

Indicator 1: Class of the rail network in operation in accordance with the Regulation Respecting Rail Safety

Target 1: Maintenance of Class 2 status for rail network in operation, between Charny and Scott

Indicator 2: Extension of rail network in operation

Target 2: Completion of rail network extension between Scott and Vallée-Jonction

Budget: \$15 million (funds already planned)

²⁶ Programme d'aide à l'amélioration de l'efficacité du transport maritime, aérien et ferroviaire en matière de réduction ou d'évitement des émissions de gaz à effet de serre (Assistance program to improve the efficiency of maritime, air and rail transportation in reduction or avoidance of greenhouse gas emissions or PETMAF) and Programme visant la réduction ou l'évitement des émissions de gaz à effet de serre par le développement du transport intermodal (Program for the reduction and avoidance of greenhouse gas emissions by the development of intermodal transportation or PREGTI).

Issue 2: Safety and security of passenger and freight rail transportation

INTERVENTION PRIORITY 2.1: STRENGTHEN TIES WITH RAIL SAFETY AND SECURITY PARTNERS

To strengthen its ties, the MTMDET intends to continue to work closely with the federal authorities and rail companies on rail safety and security. It also intends to strengthen its relationship with the Transportation Safety Board and the people in charge of rail safety at Transport Canada, for support on rail safety when required.

Measure 4: Participate actively in conferences on rail transportation held by the MTMDET's partners

Indicator: Number of conferences each year

Target: Participate in at least two conferences each year until 2023

INTERVENTION PRIORITY 2.2: FOSTER EXPERTISE AND PLAN FOR COMPETENT SUCCESSION AT THE MTMDET

Having the expertise required to take charge of key functions is one of the objectives of the MTMDET's 2017–2020 Strategic Plan. To achieve this, it intends to encourage the transfer of knowledge and expertise as part of its railway safety succession plan. It also intends to improve the training offered to its employees to ensure that the workforce has the competencies and knowledge required for this critical function. Finally, it wants to ensure enough competent human resources are available to fulfil its rail safety responsibilities.

Measure 5: Design a training program for the rail transportation resources to foster the development of expertise

Indicator: Training plan completed

Target: Training plan design completed by 2019

INTERVENTION PRIORITY 2.3: IMPROVE THE LEGISLATIVE AND REGULATORY FRAMEWORK

To fulfil its mission, it is essential for the MTMDET to continually assess the federal-provincial legislative framework. This assessment will allow the MTMDET to modernize the rules and regulations, adapt them to new realities and ensure rail safety in the interests of Québécois. Finally, to maintain the efficiency and competitiveness of rail freight transportation for interprovincial railroads, the MTMDET will continue its efforts to ensure Québec's legislative framework aligns with those of the other provinces. Although the regulation of interprovincial railroads is mainly federal, provincial regulations may have a significant impact on their operations.

Measure 6: Consult with the MTMDET's partners to review the rail laws and regulations under its responsibility

Indicator: Consultation with MTMDET's partners completed

Target: Consultation completed in 2019

INTERVENTION PRIORITY 2.4: FOSTER A CULTURE OF RAIL SAFETY AND CONTINUALLY IMPROVE THE SAFETY OF RAILROAD COMPANIES

Although the primary responsibility for rail safety belongs to the railroad companies under federal and provincial jurisdiction, the MTMDET wants to ensure that Québec railroad companies use every means at their disposal to ensure the safe operation of their equipment. It intends to urge all railroad companies under its authority to design and implement safety management systems. The MTMDET will encourage the companies to design risk management tools for the ongoing improvement of railroad safety.

Measure 7: Strengthening of the safety monitoring and legislative and regulatory enforcement program for the Québec railway network on the basis of the greatest risks

Until the Lac-Mégantic rail accident, the MTMDET had traditionally ensured that companies under Québec's jurisdiction were using all means at their disposal to operate their equipment safely, using a traditional monitoring approach. It seems indispensable, however, for the MTMDET's monitoring approach to continue to become more effective. In the short term, improving rail safety demands an increase in the MTMDET's expertise and monitoring capacity. It must therefore adopt modern safety practices based on a more effective safety culture, increased oversight of the rail networks under its authority and more structured risk assessment.

Indicator: Strengthened monitoring program

Target: Strengthening of the monitoring program started in 2018

Measure 8: Upgrade the FER operating system to allow the MTMDET to better assess risks and establish intervention priorities

The FER operating system is an IT platform that the MTMDET uses to create a reliable rail transportation database. Currently, the FER operating system supports 14 business processes, six of which are related to rail safety management for the networks under Québec's responsibility and three of which are related to managing the railway network owned by the Québec government. The other processes are complementary activities such as managing the inventory of rail structures and infrastructures and managing the inventory of railroad companies and industrial sites.

This action will correct the automation deficit in the FER operating system to eliminate many manual tasks and reduce the risk of errors, optimize work organization and communications with partners and contractors, improve the general quality of the information, automate the support processes for the railway network owned by the Québec Government and, finally, improve risk assessment and priority setting.

Indicator: Progress on FER operating system upgrades

Target: FER operating system upgrade completed in 2019

Budget: \$400,000 (additional funds)

Issue 3: Optimal use of rail transportation for passengers and goods

INTERVENTION PRIORITY 3.1: ENCOURAGE MODAL TRANSFER AND PUBLIC TRANSIT TO REDUCE GHG EMISSIONS AND IMPROVE QUALITY OF LIFE

Modal transfer to a more sustainable mode of transportation and the expansion of public transit through major investments in public transit infrastructures will reduce GHG emissions and improve people's quality of life.

By developing the commuter train service, supporting VIA Rail's HFT project in the Québec City-Windsor corridor and participating in the REM project, the Québec government is confirming its intention to support intercity rail transportation and consider the potential of this means of travel for all major public transit projects in Québec. The optimal use of rail transportation for passengers, particularly by connecting major trip generators to railways (heavy trains, light trains, etc.) and facilitating the interconnections of modes between the point of origin and the final destination (transfer stations), can help increase the use of public transit. The development of intermodal transportation of goods is also an objective of the Québec government, as outlined in the MTMDET's 2017–2020 Strategic Plan.

Measure 9: Financially support the reduction of GHG emissions through the PREGTI

The MTMDET will continue to provide government financial support for rail transportation through the Programme visant la réduction ou l'évitement des émissions de GES par le développement du transport intermodal (PREGTI), one of the objectives of which is to reduce or avoid GHG emissions from passenger and freight transportation by implementing intermodal projects.

Indicator: Number of kt CO₂ emissions avoided annually
Target: 250 kt CO₂ equivalent in 2020
Budget: \$44.25 million for 2018-2020 (funds already planned)

Measure 10: Quickly integrate the CDPQ Infra REM with existing transportation systems

Indicator: Progress of REM
Target: Inauguration of the REM (first users) in 2021
Budget: \$1.280 billion (funds already planned)

INTERVENTION PRIORITY 3.2: IMPROVE THE COMPETITIVENESS OF RAIL TRANSPORTATION

It is crucial for Québec shippers to have access to an efficient, economical means of transportation that will allow them to be competitive on increasingly distant markets. Although rail transportation is generally advantageous for heavy, bulky goods travelling long distances, the MTMDET intends to continue its research to achieve better equity among modes of transportation.

Moreover, by overhauling and improving the Modal Integration Assistance Program (Measure 1), the MTMDET will support the creation of interfaces among the maritime, rail and road transportation networks. This will lead to better complementarity among the modes of freight transportation, especially on domestic and continental routes, as well as improving the integration of rail segments in freight transportation chains, thereby improving the competitiveness and growth of rail transportation activities.

INTERVENTION PRIORITY 3.3: IMPROVE ACCESS TO RAIL TRANSPORTATION SERVICES

To support the economic and social development of the regions of Québec, the MTMDET's interventions will support greater accessibility of rail transportation for passengers and goods. As mentioned earlier, the MTMDET intends to overhaul and improve the Modal Integration Assistance Program (Measure 1), the objectives of which include providing rapid intervention in the case of major disasters, such as landslides and floods, and maintaining or quickly re-establishing rail transportation activities that may be interrupted by such disasters. For passenger transportation, by supporting VIA Rail's HFT project in the Québec City-Windsor corridor, the Québec government is demonstrating, once again, its intention to foster greater accessibility and optimal use of rail transportation. Finally, Tourisme Québec and the MTMDET are also planning to continue their partnership to facilitate the deployment and survival of tourism trains.

Issue 4: The environmental footprint of rail transportation and safe, harmonious cohabitation around railway facilities

INTERVENTION PRIORITY 4.1: ENCOURAGE INVESTMENTS TO REDUCE THE ENVIRONMENTAL FOOTPRINT OF RAIL TRANSPORTATION

Although rail transportation is one of the greenest means of transportation, the industry needs to continue its efforts to reduce its environmental footprint through greater energy efficiency, improved processes, innovation and new technologies in order to remain a productive and sustainable player in Québec's economy.

With its 2015–2020 Transportation Electrification Action Plan, the Québec government has demonstrated its commitment to supporting the electrification of certain activities related to rail transportation and its desire to encourage related initiatives, such as assessing the possibility of electrifying certain passenger and freight rail corridors, like the REM.

Measure 11: Financially support the improvement of rail transportation efficiency through the PETMAF

The MTMDET will continue to provide government support to rail transportation through the Programme d'aide à l'amélioration de l'efficacité du transport maritime, aérien et ferroviaire en matière de réduction ou d'évitement des émissions de gaz à effet de serre (Assistance program to improve the efficiency of maritime, air and rail transportation in the reduction or avoidance of greenhouse gas emissions or PETMAF), a financial incentive administered by the MTMDET and included in the 2015–2020 Transportation Electrification Action Plan. Through this program, the MTMDET promotes innovation and the use of green rail transportation technology and encourages all rail carriers to conduct energy audits on all their activities.

Indicator: Number of kt CO₂ equivalent avoided annually
Target: 135 kt CO₂ equivalent in 2020
Budget: \$25.2 million for 2018–2020 (funds already planned)

INTERVENTION PRIORITY 4.2: PROMOTE SAFE, COLLABORATIVE LAND-USE AND DEVELOPMENT PLANS THAT ACCOMMODATE DIVERSE USES

Short-, medium- and long-term planning of uses and buffer zones is indispensable for the sustained growth of rail activities and safe, harmonious cohabitation around rail facilities. The cooperation of the various stakeholders is essential for the planning and execution of land-use and development plans that take diverse uses into consideration.

The MTMDET wants to continue to refer partners (municipalities, railroads, etc.) to the report by the Railway Association of Canada and the Federation of Canadian Municipalities called *Land Use Planning Around Rail Corridors: Railway Proximity Guidelines*, with the goal of integrating adequate buffer zones in land-use and development plans, avoiding putting housing developments near freight railroads (especially those that transport dangerous goods) and marshalling yards, and creating transit-friendly housing developments near railways used only for passenger transportation.

Also, since accidents at grade crossings and injuries and deaths related to trespassing on railway rights-of-way occur due to cohabitation and, indirectly, poor land-use and development planning, the MTMDET plans to continue its interventions to improve the safety of grade crossings, on both its network and the networks of Québec municipalities of fewer than 10,000 inhabitants, through the Municipal Grade Crossing Assistance Program.

SUMMARY TABLE

| Rail Transportation Intervention Framework | Indicator | Target | Contribution to aspects of the Sustainable Mobility Policy | | | | | |
|---|--|---|---|--------------|--------------|--------------|--------------|--------------------|
| | | | SMP aspect 1 | SMP aspect 2 | SMP aspect 3 | SMP aspect 4 | SMP aspect 5 | Winning conditions |
| ISSUE 1: Longevity of rail transportation infrastructures | | | | | | | | |
| Intervention priority 1.1: Upgrade rail infrastructures and ensure their viability | | | | | | | | |
| Measure 1: Renew and improve the Modal Integration Assistance Program (MTMDET) | Implementation of the Modal Integration Assistance Program | Program renewed in 2018 | | | X | | | |
| Measure 2: Rehabilitate the entire Gaspésie railway network, from Matapédia to Gaspé (MTMDET) | Progress of rehabilitation | Entire network rehabilitated | | | X | | | |
| Measure 3: Continue MTMDET investments to maintain and upgrade the Québec Central railway between Charney and Vallée-Jonction (MTMDET) | Status of rail network in operation/ Extension of rail network in operation | Maintenance of Class 2 status for rail network in operation/ Completion of extension | | | X | | | |
| ISSUE 2: Safety and security of passenger and freight rail transportation | | | | | | | | |
| Intervention priority 2.1: Strengthen ties with rail safety and security partners | | | | | | | | |
| Measure 4: Participate actively in conferences on rail transportation (MTMDET) | Number of conferences | Participation in at least two conferences each year until 2023 | | | | | | X |
| Intervention priority 2.2: Foster expertise and plan for competent succession at the MTMDET | | | | | | | | |
| Measure 5: Design a training program for the rail transportation resources (MTMDET) | Training plan completed | Training program design completed in 2019 | | X | | | | |

| Rail Transportation Intervention Framework | Indicator | Target | Contribution to aspects of the Sustainable Mobility Policy | | | | | |
|---|---|---|--|--------------|--------------|--------------|--------------|--------------------|
| | | | SMP aspect 1 | SMP aspect 2 | SMP aspect 3 | SMP aspect 4 | SMP aspect 5 | Winning conditions |
| Issues, Intervention Priorities and Measures | | | | | | | | |
| Intervention priority 2.3: Improve the legislative and regulatory framework | | | | | | | | |
| Measure 6: Consult with the MTMDET's partners to review the laws and regulations under its responsibility (MTMDET) | Consultation with MTMDET partners carried out | Consultation completed in 2019 | | | | | | X |
| Intervention priority 2.4: Foster a culture of rail safety and continually improve the safety of railroad companies | | | | | | | | |
| Measure 7: Strengthen the safety monitoring and legislative and regulatory enforcement program for the Québec railway network on the basis of the greatest risks (MTMDET) | Strengthened monitoring program | Strengthening of the monitoring program started in 2018 | | | X | | | |
| Measure 8: Upgrade the FER operating system (MTMDET) | Progress on FER operating system upgrade | FER operating system upgrade completed in 2019 | | | X | | | |
| ISSUE 3: Optimal use of rail transportation for passengers and goods | | | | | | | | |
| Intervention priority 3.1: Encourage modal transfer and public transit to reduce GHG emissions and improve quality of life | | | | | | | | |
| Measure 9: Financially support the reduction of GHG emissions through the PREGTI (MTMDET) | CO ₂ equivalent avoided annually | 250 kt CO ₂ equivalent avoided in 2020 | | X | | | | |
| Measure 10: Quickly integrate the CDPQ Infra REM with existing transportation systems (CDPQ infra) | Progress of REM | Inauguration of the REM (first users) in 2021 | | | X | | | |

| Rail Transportation Intervention Framework | Indicator | Target | Contribution to aspects of the Sustainable Mobility Policy | | | | | |
|--|---|---|--|--------------|--------------|--------------|--------------|--------------------|
| | | | SMP aspect 1 | SMP aspect 2 | SMP aspect 3 | SMP aspect 4 | SMP aspect 5 | Winning conditions |
| Intervention priority 3.2: Improve the competitiveness of rail transportation | | | | | | | | |
| | | | | | | | | |
| Intervention priority 3.3: Improve access to rail transportation services | | | | | | | | |
| | | | | | | | | |
| ISSUE 4: The environmental footprint of rail transportation and safe, harmonious cohabitation around railway facilities | | | | | | | | |
| Intervention priority 4.1: Encourage investments to reduce the environmental footprint of rail transportation | | | | | | | | |
| Measure 11: Financially support the improvement of rail transportation efficiency through the PETMAF (MTMDET) | CO ₂ equivalent avoided annually | 135 kt CO ₂ equivalent in 2020 | | | | X | | |
| Intervention priority 4.2: Promote safe, collaborative land-use and development plans that accommodate diverse uses | | | | | | | | |
| | | | | | | | | |