

TramCité Project

Market Information Session

February 19, 2025

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Overview

- 1 CDPQ Infra and the CDPQ
- 2 Presentation of TramCité Project
- 3 Governance
- 4 Procurement Process
- 5 Question and Answer Period

CDPQ Infra and the CDPQ

Presented by **Philippe Batani**

Executive Vice-President, Public Affairs, Communications and Strategy

CDPQ Infra

As an exclusive subsidiary of the CDPQ, we design innovative solutions, in partnership with local authorities, to improve the quality of life of communities.



Owns and in charge of the operation of the Réseau express métropolitain (REM), a 26-station, 67-km-long light rail transit system connecting downtown Montreal, the Montréal-Trudeau International Airport, and the Montreal metropolitan area.

A total project investment of \$8.4 billion.



Caisse de dépôt et placement du Québec (CDPQ)

The CDPQ: A major global investment group

History

- Created in 1965
- Net assets of over \$452 billion (as at June 30, 2024)
- Investments to generate long-term sustainable returns in more than 70 countries
- A solid financial position confirmed by rating agencies (“AAA”)

Our depositors

- 48 Quebec depositors
- Mainly public and parapublic pension and insurance plans
- Representing more than 6 million Quebecers
- Goal: to reach \$100 billion in total assets in Quebec by 2026



The CDPQ: 25 years of infrastructure investment experience



Eurostar Group
Europe



Plenary Americas
America



InTransit/Canada Line
Vancouver



Akiem
Europe

\$59.8 B

Net infrastructure assets
at December 31, 2023

Largest institutional infrastructure
investor in the world*

(*Source: *Infrastructure Investor's GI 50*)



Sydney Metro
Australia

TramCité Project

Presented by **Jean-Philippe Pelletier**
Vice President, TramCité Project

TramCité Project – Highlights

✓ Optimized project and schedule

✓ Construction sites ready to build

✓ Partners' roles and responsibilities governed by an agreement

✓ Contract scope adjusted to limit supplier risks

✓ Progressive Design-Build (PCB) in joint development mode

✓ Expertise sought on similar projects

✓ Established processes based on industry best practices

✓ Schedule that provides predictability to suppliers

Governance model

Project owner



- Project objectives and governance
- Principal and public authority
- Coordination with government authorities

Main contractor



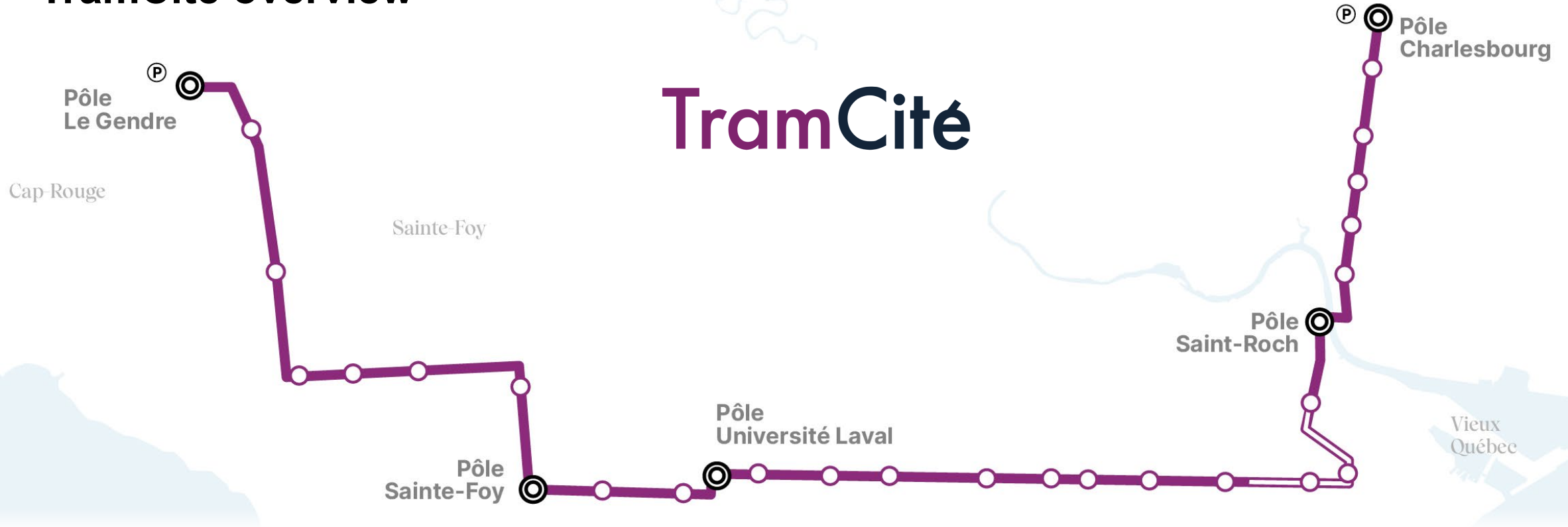
- Overall project planning and management, schedule and budget
- Procurement strategy and supplier selection
- Project execution
- Stakeholder relations
- Specific preparatory work (3 sections)

Beneficiary



- Land acquisitions and preparatory work (other sections)
- Urban development design
- Community relations
- Network operation by designated operator, RTC

TramCité overview



19 km,
including **2-km-long** tunnel

29 stations,
including **2 underground stations**

5 transfer points
to link the tramway to the suburbs

4- to 8-minute
frequency during peak hours

20 hours a day,
7 days a week

73,000 trips
per day by 2041

 **Rail route**

- 19 km of double track rail lines, mostly on platforms
- Close to 2 km of double-track tunnel under Parliament Hill
- Ventilation systems and other mechanical, electrical and plumbing equipment compliant to NFPA130
- Railway signalling and traffic warning light systems
- Rehabilitation / construction of four structures
- Urban right-of-way redevelopment and street requalification (road and sidewalk reconfiguration)

 **Electrical traction system**

- Delivery stations with Hydro-Québec
- Distribution network internal to the TramCité network with substations and rectifier stations
- Overhead contact line on most of the route (some sections will be operated with on-board energy)
- On-board energy charging systems for rolling stock



Eco-design for stations

29 universally accessible urban stations with approximately 40-m-long platforms

- Two (2) underground stations with platforms sized to allow service to be expanded in the future
- Five (5) multimodal transfer points with bus platforms. Development that facilitates and promotes intermodal transfer
- Two (2) park-and-ride lots at the terminals

Services

- Telecommunications for ticketing and signage equipment and network status and information screens
- Reserved spaces for active mobility (e.g., bike racks)
- Safety
- Video surveillance system in stations and cars



Operation and Maintenance Centre (CEE)

Specific CEE for the storage, maintenance and operation of TramCité network train sets integrating:

- Centralized Control Post (PCC)
- Fleet maintenance equipment
- TramCité network fleet and maintenance vehicle storage areas
- A machine to wash the train sets
- Automated train set inspection system



Rolling stock

Technology choices

- Urban electric tramway train sets
- Hybrid electric power technology by catenary and on-board batteries
- Battery charging system



Operation and maintenance

Operation

- TramCité is integrated into the City's public transit and active transportation networks
- 5 multimodal transfer points aimed at reducing the number of buses
- The network will be operated by the operator designated by the Government of Quebec, the Réseau de transport de la Capitale (RTC).

Maintenance

- RTC will handle basic and Level 1 Maintenance (EN13306)
- CDPQ Infra will be responsible for Level 2 to 5 maintenance (Standard EN13306)

Preparatory work

Presented by **Jean-Philippe Pelletier**

Vice President, TramCité Project

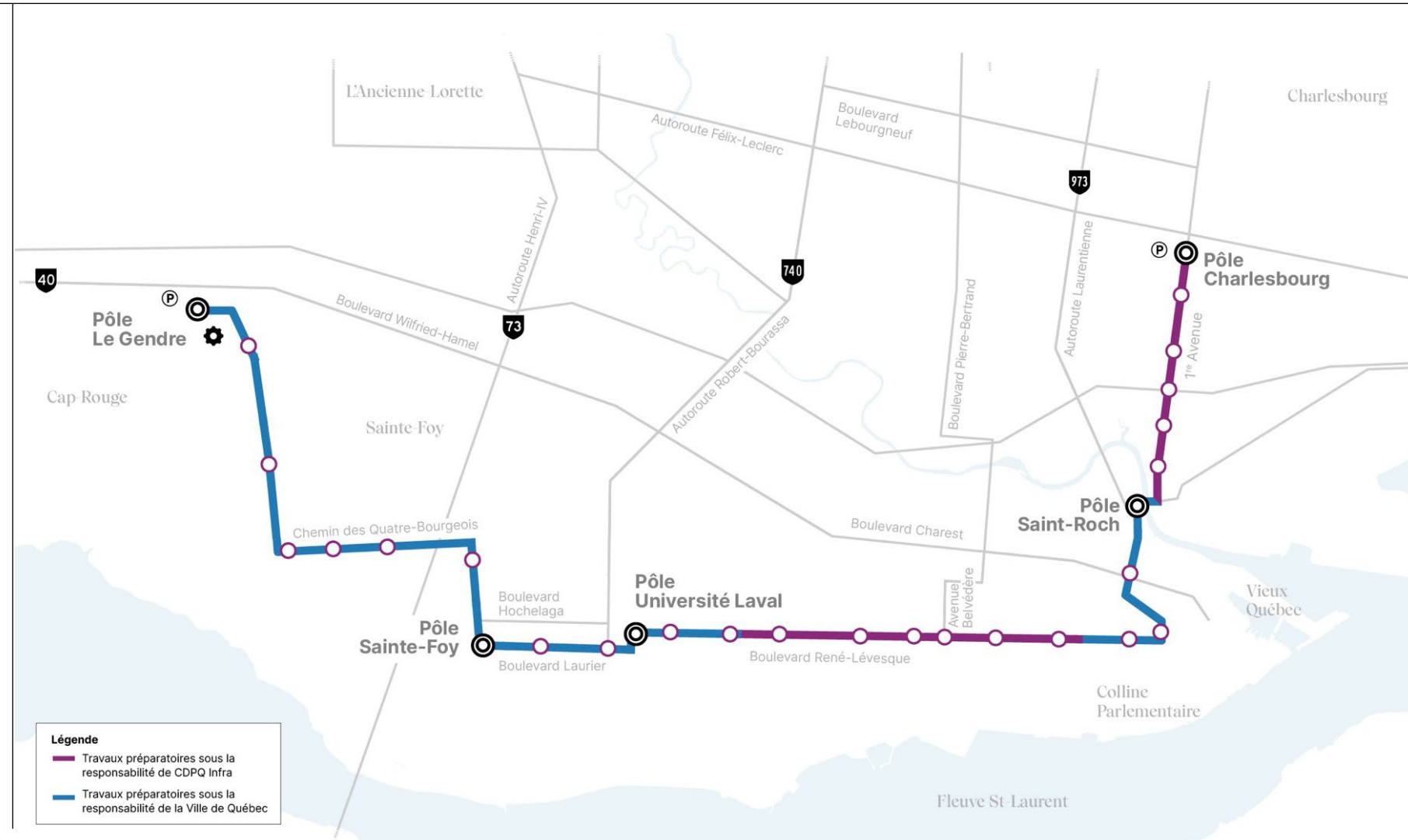


Preparatory work

In the **René-Lévesque** and **1^{re} Avenue** areas, the aim is to:

- Relocate the urban technical networks in certain sections of the route.
- Relocate municipal services (e.g., water, sewer systems) on certain sections of the route.

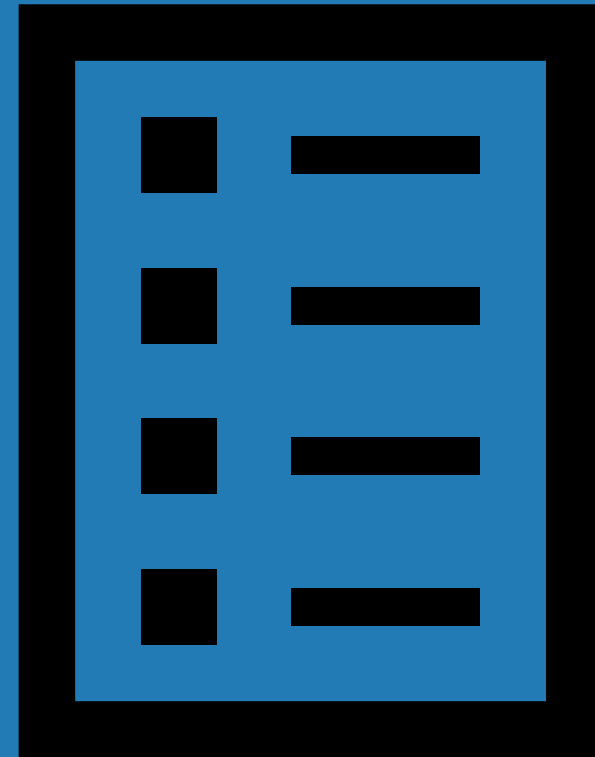
Responsibility shared by CDPQ Infra and Quebec City



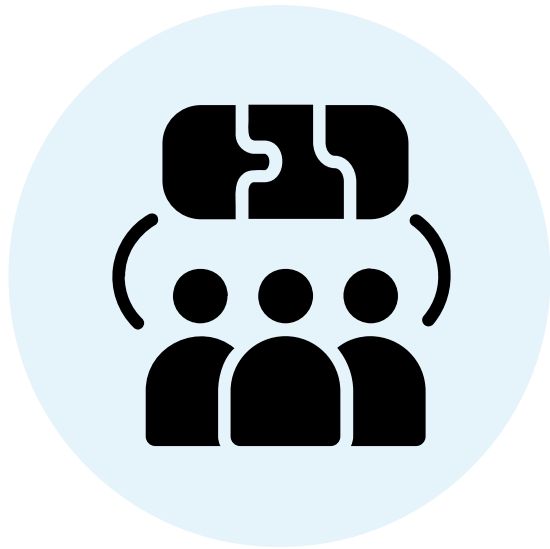
Procurement Process

Presented by **Jean-Philippe Pelletier**

Vice President, TramCité Project



Progressive Design-Build (PDB)



PDB-type contract with remunerated co-development period, the purpose of which is to:

- Ensure efficient interface management among contract providers
- Ensure proper allocation of risks to the party best capable of mitigating them
- Define a target price and the integrated project schedule

The co-development period will be carried out with the suppliers selected for each contract – single supplier per contract

Key factors considered at RFPs

CDPQ Infra is looking for companies with experience in delivering complex projects in dense urban areas, as well as carrying out railway projects

Proven capabilities required:

- ✓ Knowledge of local market and ability to mobilize a local team in Quebec City

- ✓ Ability to work at all stages of the co-development process in French

- ✓ Relevant experience in delivering projects of similar complexity

Key success criteria for suppliers

✓ Bidders' expertise

✓ Professional experience
of project team members

✓ Collaborative approach
in project management
and co-development phase

✓ Commercial conditions

✓ Proven robust and accurate
design-build and target pricing
methodology

✓ Approach focused on monitoring
the schedule and other
deliverables

✓ Financial capacity

Major Contracts

Presented by **Jean-Philippe Pelletier**

Vice President, TramCité Project



Contracts for preparatory work under CDPQ Infra's responsibility

Engineering	A contract for the preliminary design engineering, obtaining the required authorizations from the stakeholders involved, and monitoring the work for the relocation of urban technical networks and municipal services on the designated sections	Call for tenders: January 2025
Execution	Contract(s) for detailed design and construction of relocation of urban engineering systems and municipal services on the designated sections	Call for tenders: Fall 2025

Participation in other calls for tenders

Suppliers delivering these services will be able to participate in other procurement processes related to the Project. They will not be in a conflict of interest.

Main major contracts

CC	<p>Civil-engineering construction contract: A Progressive Design-Build (PDB) contract with the objective of establishing a target price and integrated schedule for the design and construction of civil engineering works, which would eventually be followed by a design, procurement and construction contract for civil-engineering infrastructure and buildings (e.g., CEE, underground stations, ventilation stations, tunnel);</p>	Submission of proposals: Fall 2025
CS	<p>Systems Construction Contract: A PDB contract with the objective of establishing a target price and integrated schedule for the design, construction, supply, integration and commissioning of systems, including, in particular, the railway tracks, the overhead contact line and traction energy systems, railway signalling systems and traffic warning light systems, and tunnel equipment. The contract also includes the maintenance of civil-engineering infrastructure and tramway systems.</p>	Submission of proposals: Fall 2025
MR	<p>MR Contract: A contract for the supply and maintenance of rolling stock. At the project owner's request, the current contract is being reviewed to determine the feasibility of maintaining it. Decision expected in the spring.</p>	Submission of proposals: To be determined

14-month co-development activities

Advance the Project design in sufficient detail

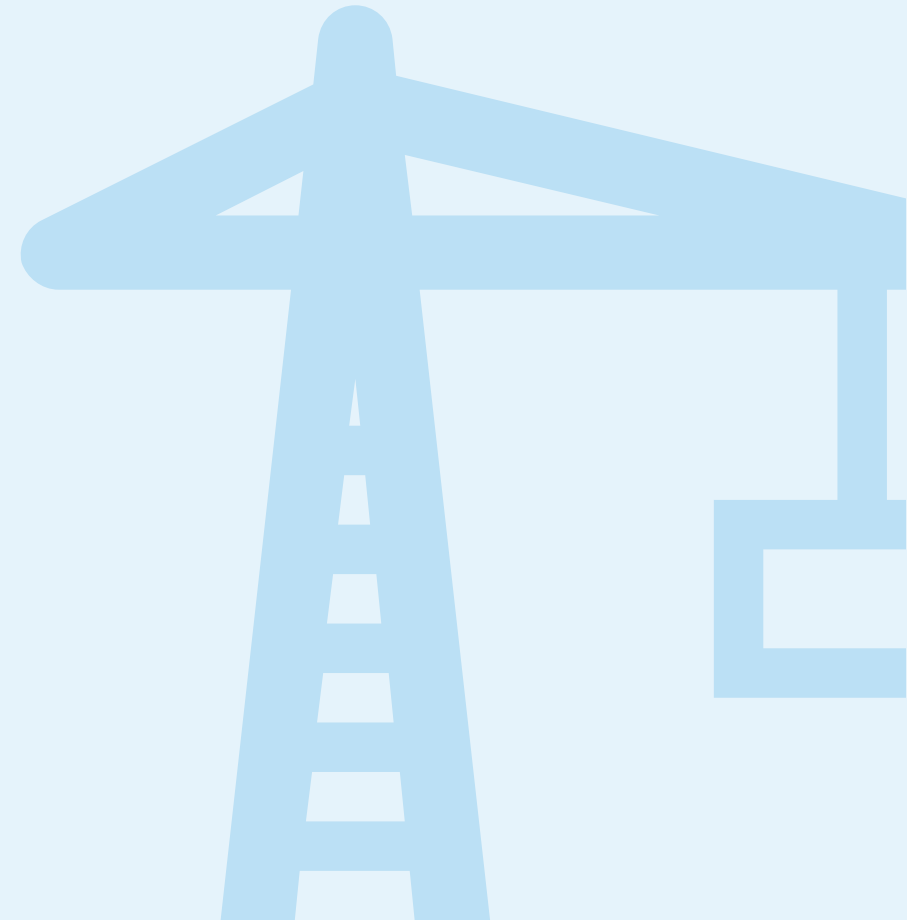
- Target price and schedule (CS, CC)
- Risk allocation and interface sharing (CS, CC and MR)
- Commercial protocols for the delivery and maintenance phase (CS, MR)
- Target price management mechanisms (“pain/gain” approach) (CS, CC)
- Collaboration mechanism among suppliers

Compensation mechanism during co-development period

- Monthly remuneration based on progress of deliverables
- Incentives or deductions applied based on performance indicators

Civil-engineering contract, CC

**Design, procurement and construction
contract for civil-engineering infrastructure**





Scope of CC work

- Civil engineering works and structures
- Tunnel and access portals (approximately 2 km)
- MEP tunnel (e.g., ventilation, drainage, fire protection, lighting, blue stations)
- Tramway underground stations (excavation, concrete work, envelope waterproofing, interior structure, architectural finishes, elevators, escalators, MEP)
- Aboveground tramway stations
- Civil engineering and utility buildings on line (ventilation stations, electrical substations, delivery stations)
- Maintenance and Operations Centre (CEE)
- Intermodal transfer points and parking areas
- Field Technical Management
- Traffic, road signage and lighting
- Noise and vibration mitigation measures
- Landscaping of site boundaries
- Right-of-way redevelopment and requalification (road and sidewalk reconfiguration)



Considerations – CC

- Groups of bidders must consist of no more than two (2) construction companies
- Engineering firms will have to participate as subcontractors of the bidding teams.
- Subcontractors (excluding engineering contracts) whose contracts represent more than 5% of the CC value must be approved by CDPQ Infra.
- Integration of CC work will be governed by an interface appendix with the CS Supplier and the MR Contract Supplier headed by the CS Supplier. However, the CC Supplier continues to be responsible for CC work.
- A system for making the CC Supplier's work available to the CS Supplier will be put in place and agreed to by the Suppliers and CDPQ Infra during the co-development period.
- Guarantee scheme (usual provisions for co-development phase)

Systems Contract, CS

Design, procurement, construction and system integration contract, systems commissioning and maintenance.

■ Scope of CS work

- Railway tracks and track equipment
- Track or rail/road maintenance vehicles
- Overhead contact systems and equipment
- On-board energy capacity charging systems
- Auxiliary power, including substations
- Traction energy, including substations and delivery stations (power supply with Hydro-Québec)
- Railway signalling system
- Traffic warning light system
- Centralized control and fallback stations (PCC)
- Telecommunications and communication systems
- Supervisory Control and Data Acquisition (SCADA)
- Information system, video surveillance and signage
- BLS, intrusion detection and access control system
- Electronic ticketing (telecom)
- Systems integration
- Maintenance (Levels 2 to 5, Standard EN13306)

■ Considerations – CS

- Integration of CS work will be governed by an interface annex with the CC Supplier and the MR Contract Supplier headed by the CS Supplier. However, the CS Supplier continues to be responsible for CS work.
- A site access system between the CS and CC Suppliers will be agreed to between these Suppliers and CDPQ Infra during the co-development phase.
- Subcontractors (excluding engineering contracts) whose contracts represent more than 5% of the CS value must be approved by CDPQ Infra.

MR Contract

Rolling stock





Scope of Rolling Stock Contract

- Rolling stock (MR)
- Equipment for rolling stock servicing and maintenance at the CEE
- MR online recovery vehicle
- Online maintenance vehicles
- Levels 2 to 5 rolling stock maintenance (Standard EN13306)
- 30 tramway sets
- Length: 35 to 40 metres
- Capacity of 250 passengers (4 pass./m²)
- Hybrid power by overhead contact line and on-board power
- Universally accessible

Considerations – MR

- Integration of MR Contract work will be governed by an interface annex with the Civil-Engineering Contract Supplier and the Systems Contract Supplier headed by the Systems Contract Supplier. However, the MR Contract Supplier continues to be responsible for MR Contract work.
- A minimum of 25% Canadian content will be required, in accordance with section 5 of the *Act Respecting the Réseau structurant de transport en commun de la Ville de Québec*.

Additional mandates

Presented by **Denis Andlauer**
Vice-President, Operations



Independent Cost Estimator (ICE) mandate

CDPQ Infra wants to use a supplier with experience in PDB models and good knowledge of local construction costs to support and assist it in a neutral and impartial manner:

- In identifying the target project execution price
- In the delivery of estimates, comparative cost analyses, and Project cost recommendations
- With target price management and estimating requirements for major contracts

February 2025

Submission
of proposals

Shadow Operator (OEA)

CDPQ Infra would like to use a supplier with tramway operating experience in order to:

- Support the teams of CDPQ Infra and the designated RTC operator, in the identification and comprehensive inclusion of the operational and maintenance issues of a tramway network
- Contribute to the development of technical and maintenance requirements for Major Contracts
- Assist CDPQ Infra with the process of selecting suppliers for the Major Contracts
- Participate in the co-development period of the final design solution
- Monitor the execution of the Project and participate in progress meetings to ensure that implementation complies with the Project requirements as well as the clauses of the Major Contracts
- Support for the management interfaces with Major Contracts suppliers, the designated operator, and any other stakeholders in accordance with the interface appendix
- Training of designated operator (RTC) for the operations phase, including the deployment of a team of technical experts to Quebec City

April 2025

**Submission
of proposals**

Independent Safety Assessment (ISA) mandate

CDPQ Infra wishes to be assisted by an independent supplier mandated to provide the services of an Independent Safety Assessor (ISA) for all activities starting with the co-development phases.

- Provide neutral and impartial support and assistance to CDPQ Infra in the evaluation and demonstration of project safety according to CENELEC standards (50126, 50128, 50129)
- Prepare the reports, notes and audits needed for the proper administration of the safety process for the scopes of each supplier and for CDPQ Infra for the entire project
- Issue the various certificates required to enable the responsible authorities to authorize the various stages of the project until commercial commissioning

**September
2025**

Submission
of proposals

Mandate of Independent Certifier

CDPQ Infra wishes to rely on an independent supplier to carry out:

- Neutral and impartial assessment of work progress
- Certificates of progress and acceptance of work on milestone dates
- Establish the lists of work to be completed / deficiencies to be corrected in order to declare final acceptance
- Approval of action plans related to non-compliance and non-performance

Fall 2025

Submission
of proposals

Contract award process

Presented by **Elga Leciejewski**
Senior Director, Procurement

Processes in line with industry best practices

The procurement processes will comply with the requirements of CDPQ Infra's procurement policy.

They are based on the fundamental values of integrity, equity, and transparency.

- Evaluation committees organized by domain, independent of each other, and composed of internal and external experts, trained for their roles and responsibilities
- Ongoing monitoring of real, potential or apparent conflicts of interest. Any situations involving the assessors and bidders, submitted for review to a conflict of interest review committee
- The recommendations of the various committees will be forwarded to an internal review committee that will be responsible for quality control, compliance with rules and final recommendations.
- Several procurement process auditors have been identified to monitor the selection processes until the contracts are executed
- An evaluation plan is established for each process: the reference framework for rigorous oversight of evaluation activities
- Any information deemed useful in developing an optimal proposal will be made available to all bidders through the electronic documentation room

Procurement milestones for 2025

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Description	Deadlines
Signing of TramCité Project framework agreements	December 16, 2024
Notice to the Market	December 19, 2024
Request for expression of interest with qualification criteria for OEA Contract	December 20, 2024
Request for proposals for EIC Contract	January 13, 2025
Request for proposals for OEA Contract	February 14, 2025
Information session	February 19, 2025
Submission of proposals for EIC Contract	February 2025
Request for expression of interest with qualification criteria for CC and CS contracts	March 2025
Submission of proposals for OEA Contract	April 2025
Request for proposals for CC and CS contracts	May 2025
Submission of proposals for CC and CS contracts	November 2025
Start of co-development phase	Beginning of 2026
Duration of co-development phase	14 months
Execution	6 years

Question and Answer Period



TramCité

Québec 

 **CDPQ**
Infra

VILLE DE 
QUÉBEC



Any additional questions?

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