

Questions raised by citizens at REM de l'Est information sessions and webinars

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Webinars: May 19 and June 9, 2021

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Operations

What will REM de l'Est hours of operation and frequency be?

REM de l'Est will operate 20 hours a day, 7 days a week, with departures every 2 minutes during peak hours and every 4 minutes during off-peak hours. Hours of operation will be synchronized with the STM metro system.

2. Will REM de l'Est frequency be comparable to that of the REM under construction (REM 1.0)?

The frequency of the REM currently under construction will vary according to sector. REM de l'Est frequency will vary from 2 minutes to 4 minutes during peak hours.

3. How much will it cost to use the REM de l'Est?

The Autorité régionale de transport métropolitain (ARTM) is responsible for setting the fare schedule for all transit networks in the greater Montréal area. We are currently working in close collaboration with the ARTM to integrate the REM into this future fare schedule. The ARTM implemented fare reform in July 2021. You can find more information at: https://www.artm.guebec/en/fare-reform/

The goal is to have a single travel pass. Customers would purchase their passes from the ARTM; those passes would work on every network, including the REM, metro, buses, etc.

Our intent remains to keep fares comparable to current prices for equivalent distances, and that travel passes, such as the Opus card, would allow people to access the REM and all other transit systems as well.

4. Who will be responsible for the day-to-day management of the REM de l'Est?

CDPQ Infra plans to delegate operation and maintenance through a long-term contract awarded to a private operator. CDPQ Infra will remain responsible for the performance and quality of service that the operator provides.

5. Where will REM de l'Est rolling stock be maintained? Where will the maintenance centre be located? How will the cars change tracks when they arrive at the terminal stations?

The plan is for the trainsets, which consist of two electric light rail cars, to simply run in the opposite direction when they reach the end of the line. Therefore, it will not be necessary to change tracks. The exact location of the rolling stock maintenance garage is still being analyzed at this time.

6. How will equipment be transferred between the REM and REM de l'Est?

Rolling stock is not intended to be interchangeable between the two transit systems. Although we plan to use equivalent technology, REM de l'Est cars will be distinct so they harmonize with the environments through which they travel.



7. When columns are necessary in the median of a boulevard, will there be protection for motorists such as impact attenuators or guardrails, and if so, how much horizontal clearance will be required for such protective devices?

In a context of heavy traffic such as is the case on East Sherbrooke Street, engineering studies conducted to date recommend that the elevated structure be built in the centre of the roadway, with the columns located in the medians.

This design maintains north-south fluidity, minimizes impact on road layout and pedestrian and bicycle paths, and significantly reduces the number of properties that need to be expropriated.

Mitigating potential impacts and maintaining safety for drivers, pedestrians and cyclists is one of our major concerns. Having a multidisciplinary team enables us to incorporate necessary mitigation measures, beginning at the project design stage.

8. Automated electric light rail systems rely on electricity. What will happen when there is a general power outage?

The electrical architecture will be designed with redundant power systems. In other words, there will be no impact if one of the rectifier substations fails. We are also planning four Hydro-Québec injection points. This will prevent impacting the entire network at once.

We will also have battery back-up power for safety systems to evacuate people safely, if necessary.

9. How well do you anticipate the structures will be able to withstand the cold and snow, and what actions will be taken to ensure REM de l'Est operation during the winter?

The REM de l'Est will be designed with extreme winter weather conditions in mind. More specifically, the light rail system is better suited to winter conditions than trams or streetcars, and the hours of operation will prevent the overhead contact line, which powers the electric cars, from freezing. Furthermore, the tests conducted on the REM in Brossard show excellent resistance to Québec weather conditions.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

10. How will a person leaving from Robert-Bourassa choose their route between Cégep Marie-Victorin and Pointe-Aux-Trembles?

Departures will alternate between CÉGEP Marie-Victorin and Pointe-aux-Trembles, allowing users to choose the direction they wish to go. Dynamic information will be displayed in the stations to allow users to choose the right direction and board the right train. If they board the wrong train, customers will be able to disembark at any station in the central segment (up to Saint-Clément Station) and wait for the next train heading to the correct final destination.



Construction

11. What material will REM de l'Est columns be constructed of and how will you ensure that they are kept clean, safe and free of graffiti?

At this stage of the project, it is too early to say what materials will be used in REM de l'Est construction. That aspect will be part of the responsibilities entrusted to the multidisciplinary committee of experts on architecture and urban integration mandated by the Government of Québec to participate in developing the architectural concept guidelines that will be imposed on consortiums as part of the request for proposals process. This committee will also submit recommendations to the CDPQ Infra design team, prior to the design stage, regarding the architectural quality and urban integration of the network. All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

As for column maintenance and prevention of graffiti, the REM currently under construction plans to apply a product to its structures that facilitates graffiti removal. The consortium responsible to operate and maintain the network will be mandated with ensuring regular structure maintenance and adhering to prescribed time frames for prompt graffiti removal, if necessary.

12. How high will the columns be?

At this stage of the project, it is too early to say what the exact height of REM de l'Est columns will be, but Ministère des Transports du Québec standards require a minimum clearance of 5.3 m to allow vehicle passage, including fire trucks.

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All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

13. How (what construction method) will the tunnels and stations be excavated, and will service shafts be necessary?

The REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects.

For the Marie-Victorin branch, the tunnel will be excavated using a tunnel boring machine. Station excavation methods and service shaft requirements will be determined at a later date once the geotechnical studies and site constraints analyses have been completed.

All design details will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.



14. How deep will the underground sections of the REM de l'Est be?

Geotechnical studies are underway to confirm the exact depths. We estimate at this time that the underground sections will be constructed at an average depth of less than 20 metres.

All of these details will be stipulated in the project's impact study, before the BAPE public hearings scheduled for 2022.

15. Why are very deep stations problematic?

Our ridership studies show that since it takes longer to get to them, the deeper the stations are, the fewer users there will be. Since some stations would have to be built more than 25 storeys below ground, studies conclude that they would be less used by riders.

16. How big will the stations be?

In general, we expect that platforms will be 40 metres long. At this point, the REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

17. How far from residences will the structures be along the route (on René-Lévesque, Notre-Dame and Sherbrooke)?

At this stage of the project, it is too early to answer that question, but rest assured that CDPQ Infra is working to avoid, minimize or compensate for, whenever necessary, all impacts associated with the project.

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18. How long are REM de l'Est installations expected to last?

The REM de l'Est infrastructure will be designed to last more than 100 years. Since CDPQ Infra is responsible for all phases of the project, from planning to operation, structure maintenance will ensure an optimal life span.

CDPQ Infra will also have a preventive maintenance program to ensure the network is in good working condition at all times.



19. Will underground infrastructure work have any impact on the integrity of residential buildings, particularly those along L'Assomption Boulevard?

REM de l'Est construction and operation will be governed by a regulatory framework. The government of Québec will establish the requirements of this framework once the project's environmental impact study has been completed.

During construction, some work may generate noise, vibration and dust, but will not impact building integrity. Structure design will take into consideration the foundations of nearby buildings and safe distances will be maintained according to good design and construction practices.

The primary objective will be to minimize the impact the work has on surroundings. Monitoring will also take place during construction to adjust work methods as needed. A comprehensive fact sheet addresses the approach to nuisances during the construction and operations phases of REM de l'Est.

20. What mitigation measures are planned to minimize noise and vibration?

Mitigating potential impacts is one of our major concerns as we work on this project. Having a multidisciplinary team enables us to incorporate necessary mitigation measures, beginning at the project design stage.

There is a wide range of potential mitigation measures. The measures will be chosen according to the context, and several examples are detailed in this data sheet.

In-depth sound modelling will be performed to determine whether additional measures should be proposed. The purpose of the modelling will be to evaluate the existing soundscape (without the REM de l'Est) and model the anticipated soundscape after the project is complete, to determine whether there is a significant difference between the two.

Where appropriate, additional mitigation measures, such as anti-noise devices, will be installed in locations where significant impacts are anticipated. These mitigation measures will be installed as close as possible to the rails to minimize noise at the source and prevent it from propagating. The mitigation measures will therefore be taken into account during the project design phase, and will be implemented during the construction period, prior to commissioning.

Monitoring will also take place during the operating period to adjust work methods as needed. Adjustments will be implemented if monitoring data shows additional significant impacts. A preventive maintenance program for rolling stock will also be provided. Similarly, vibrations during the operating phase will be subject to strict requirements.



21. How will the nuisance associated with traffic disruptions during construction be considered?

Mitigating potential impacts is one of our major concerns as we work on this project. Having a multidisciplinary team enables us to incorporate necessary mitigation measures, beginning at the project design stage.

There is a wide range of potential mitigation measures. The measures will be chosen according to the context, and several examples are detailed in this <u>data sheet</u>.

22. Why is a 500-metre transition zone required to bury the REM?

To transition from an elevated structure to a tunnel, a transition zone is required. Its length is calculated according to the maximum slope that the light rail can take. For the REM, that slope is about 4% and requires a distance of 500 metres to transition from an underground to an elevated configuration.

23. As far as mobility is concerned, my biggest concern is mobility during construction. Between the single access point to my building on East Sherbrooke Street and the ongoing work near the Honoré-Beaugrand metro station, I want to make sure that it will be safe to drive and walk, since there are several small businesses on East Sherbrooke Street.

The primary objective will be to minimize the impact the work has on surroundings. Special attention will also be paid to maintaining traffic flow and active transit (pedestrian and cycling) during the construction period, as the route runs on busy roads. Access to businesses and services will be maintained. Alternative routes may be proposed, depending on work phase.

Traffic disruptions will be coordinated with the appropriate authorities, including the City of Montréal, the boroughs and the *Ministère des Transports du Québec*.

24. Why is construction only scheduled for completion in 2029 when the original REM will be completed in four years?

Work on the initial REM began in 2018 and the first branch, the one on the south shore, will be commissioned in 2022, four years after the start of construction. The other branches will be commissioned progressively between 2023 and 2024, totalling six years of construction. The preliminary timetable for REM de l'Est anticipates that work will begin in 2023, with commissioning in 2029, six years after the start of construction. A more accurate construction schedule, which may include phased commissioning, will be unveiled once the construction consortium has been selected.



25. Will you build noise barrier walls?

Mitigation of potential impacts is a major concern. Having a multidisciplinary team enables us to incorporate necessary mitigation measures, beginning at the project design stage.

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In-depth sound modelling will be performed to determine whether additional measures should be proposed. The purpose of the modelling will be to evaluate the existing soundscape (without the REM de l'Est) and model the anticipated soundscape after the project is complete, to determine whether there is a significant difference between the two.

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Monitoring will also take place during the operating period to adjust work methods as needed. Adjustments will be implemented if monitoring data shows additional significant impacts. A preventive maintenance program for rolling stock will also be provided. Similarly, vibrations during the operating phase will be subject to strict requirements.

26. On which side of Sherbrooke Street will the columns be installed between Highway 25 and Honoré-Beaugrand?

In a context of heavy traffic such as is the case on East Sherbrooke Street, engineering studies conducted to date recommend that the elevated structure be built in the centre of the roadway, with the columns located in the medians.

This design maintains north-south fluidity, minimizes impact on road layout and pedestrian and bicycle paths, and significantly reduces the number of properties that need to be expropriated.

27. Would it be possible to eliminate all traffic on René-Levesque Boulevard in order to build a train that will meet the needs of the population and CDPQ?

The multidisciplinary committee of experts on architecture and urban integration will be mandated by the Government of Québec to issue recommendations to the CDPQ Infra design team and the City of Montréal regarding urban integration, prior to the design stage; part of that mandate will include the reconfiguration of René-Lévesque Boulevard.



28. How can we ensure that traffic on Notre-Dame coming from downtown, the Port of Montréal and the Louis-Hyppolyte Lafontaine tunnel is not diverted onto Hochelaga? What strategies will be implemented to divert traffic away from this section of Hochelaga during construction?

Mitigation of potential impacts is one of our major concerns. Having a multidisciplinary team enables us to incorporate necessary mitigation measures, beginning at the project design stage.

Traffic mitigation measures to be implemented during the construction phase will be developed with the consortium selected to build the network. It would be premature to detail them at this stage; however, we have committed to minimizing the inconveniences associated with construction and to working closely with Mobilité Montréal, other mobility partners, as well as the City of Montréal and boroughs to propose consistent mitigation measures and maintain communication throughout this phase of the project.

29. Regarding the underground option in the Notre-Dame sector, you mentioned that it is not possible to go beneath the railroad tracks; but the Montréal metro's green and orange lines do. Why is that not an option this time?

In order to have an underground route in the Notre-Dame Street sector, the transition zone would have to be positioned east of the Canadian Pacific (CP) tracks, given the high density of municipal services west of them.

Furthermore, this underground section would also have to go through bedrock. Erratic rocks, the proximity of the river and the water table level also increase the risk of water infiltration, which creates a risk of ground settlement, which in turn could affect the existing railroad tracks.

These constraints would require that an underground route in the Notre-Dame Street sector be built at a great depth, with two transition zones permanently blocking several of the north-south axes that connect to Notre-Dame Street.



Project schedule

30. What is the timeline for building and commissioning the REM de l'Est? Will it be operational before the blue line extension is commissioned?

The major planning and construction stages for REM de l'Est are as follows:

- Spring 2021: Setup of the multidisciplinary expert committee on architecture and urban integration
- Spring 2021: Information and consultation process for the REM de l'Est
- Late 2021: Filing of the Environmental Impact Assessment with the MELCC
- Early 2022: Start of BAPE public hearings
- 2022: Issuance of the Order in Council
- 2023: Start of construction
- 2029: Commissioning

31. The original REM schedule was delayed. How do you plan to stay on schedule with REM de l'Est?

The original REM schedule was adjusted to take into account exceptional events that no one could have foreseen, namely the construction shutdown due to the global pandemic, the discovery of an undetonated, century-old blasting charge in the Mont-Royal Tunnel, and the advanced deterioration of portions of the tunnel vault.

We have had to implement health and safety measures to ensure that work can continue in accordance with generally accepted industry practises.

We continue to carefully manage the project schedule, and that's also what we will do for the REM de l'Est.



Economic recovery

32. How does the REM de l'Est fit into Montréal's economic recovery and how will this project allow for the economic development of the neighbourhoods it will pass through?

The REM de l'Est in Montréal will create more than 60,000 jobs during construction and contribute \$6.3 billion to Québec's GDP. It will serve Montréal's main employment hub, downtown, as well as employment hubs in the east such as the Port of Montréal, the Olympic Stadium area, the Maisonneuve-Rosemont hospital sector and numerous industrial parks. In making these employment hubs accessible by public transit, the REM de l'Est will contribute to improving attractiveness for businesses and organizations in the area and the retention of workers in the sector.

33. How would the REM revitalize Sainte-Catherine Street in Mercier-Hochelaga-Maisonneuve?

REM de l'Est will provide new public transit service for the businesses and residents of Sainte-Catherine Street, which is very close to Notre-Dame Street. Thus, we anticipate that the arrival of the REM de l'Est will revitalize Sainte-Catherine Street by creating destination businesses.

Furthermore, we are working with all stakeholders, including the City of Montréal, to implement a concerted and harmonious vision with the community. The committee of experts will ensure the elevated structure and stations receive special attention in terms of architectural treatment, ensuring they feature a modern and symbolic aesthetic for downtown Montréal. The Québec-based architectural firm Lemay has also been mandated to ensure station structure and architecture integrate harmoniously with the built environment. We are in the detailed planning phase, which occurs prior to the final design stage. This is the most opportune time for the expert committee and architectural firm to contribute to project optimization and improvement.



Public consultations

34. What roles do the City of Montréal and the STM play in the consultation process?

CDPQ Infra maintains ongoing collaboration with key project partners and stakeholders, including the City of Montréal and its boroughs, the STM, the ARTM and the Government of Québec. CDPQ Infra has set up technical workshops with the relevant authorities to enhance and optimize the project.

35. Have you consulted the elected officials of Montréal and Montréal-Est?

CDPQ Infra maintains an ongoing dialogue with a variety of partners and stakeholders, including the City of Montréal and its boroughs, for example by setting up various technical workshops with relevant authorities to improve and optimize the project. As indicated in our report, we met with elected officials from the following boroughs, cities and MRCs:

- Ville-Marie
- Mercier–Hochelaga-Maisonneuve
- Rivière-des-Prairies-Pointe-aux-Trembles
- Montréal-Nord
- Saint-Léonard
- Rosemont–La-Petite-Patrie
- Montréal-Est
- MRC Les Moulins
- MRC L'Assomption

36. What are the next steps in the consultations?

CDPQ Infra has been consulting with partners and stakeholders since January 2021. More recently, the public was invited to participate in three virtual information sessions, two thematic webinars and six public consultation sessions, held from May 27 to June 16, 2021 in each project area. At the same time, an online consultation platform is available at all times for citizens and stakeholders.

A report on all the recommendations submitted by members of the public will be made available on the CDPQ Infra website at the end of summer 2021 and a review of the ideas retained will be presented by the end of 2021.

Following the directive issued by the *Ministère de l'Environnement et de la Lutte contre les changements climatiques* (MELCC), the REM de l'Est project will be submitted to the *Bureau d'audiences publiques sur l'environnement* (BAPE) in 2022. During this process, members of the public will be able to stay informed and share their opinion on the project.



37. How will the BAPE analyses be conducted and will you respect the Commission's opinion?

Once the directive has been issued by the *Ministère de l'Environnement et de la Lutte contre les changements climatiques* (MELCC), the REM de l'Est project environmental impact study will be submitted to the *Bureau d'audiences publiques sur l'environnement* (BAPE) in 2022. During those hearings, members of the public will be able to stay informed and share their opinion about the project, within the framework of the public hearings. The BAPE report will then be submitted to Québec's Minister of the Environment and the Fight against Climate Change, who will then establish the environmental requirements for the project. Those requirements will be imposed on CDPQ Infra by the Government of Québec through an Order in Council.

38. Will all the analyses conducted within the framework of the project be made public?

CDPQ Infra will release the project's impact study, including ridership studies, before the BAPE public hearings scheduled for 2022. Furthermore, any document deemed relevant for understanding the project will be made available before the BAPE hearings.

39. Why aren't public consultations conducted by a neutral third party?

The REM de l'Est project will also be submitted to the *Bureau d'audiences publiques sur l'environnement* (BAPE), an impartial government body that reports to the Minister of the Environment and the Fight Against Climate Change. CDPQ Infra's information and consultation process complements the BAPE's and is intended to start a dialogue with the public so that opinions and recommendations raised can help improve the project, which is currently in its detailed planning phase.

40. Has the STM been consulted regarding the location of REM stations?

CDPQ Infra maintains ongoing collaboration with key project partners and stakeholders, including the City of Montréal and its boroughs, the STM and ARTM. CDPQ Infra has set up technical workshops with the relevant authorities to enhance and optimize the project.

41. Have you asked elected officials to sign confidentiality agreements as was the case for the REM currently under construction? If so, why?

As is the case with any project of this nature and scope, CDPQ Infra has signed a confidentiality agreement with the City of Montréal.

We have not required any specific agreement with public administration staff or public office holders.

The agreement with the City of Montréal protects public interest and, most specifically, minimizes speculation regarding the project's reference route, thereby minimizing land banking and the commercial risks associated with the project in terms of future market demand.



42. Did you consult urban planners or architects when you came up with this project? If so, which ones?

The feasibility studies conducted prior to the reference project were conducted by a multidisciplinary team composed of engineers, architects, urban planners, environmental specialists and other disciplines relevant to the studies to be conducted.

The elevated structure and stations will receive special attention in terms of architectural treatment, ensuring they feature a modern and symbolic aesthetic for downtown Montreal.

The Government of Québec set up a committee of independent, multidisciplinary experts to assist our architects and engineers in developing the project's architectural charter. This committee is composed of several renowned architects and urban planners.

The Québec-based architectural firm Lemay has also been mandated to ensure station structure and architecture integrate harmoniously with the built environment.

We are in the detailed planning phase, which occurs prior to the final design stage. This is the most opportune time for the expert committee and Lemay architectural firm to contribute to project optimization and improvement.

43. What feedback mechanisms will CDPQ Infra put in place for citizens' suggestions regarding the route?

CDPQ Infra has been consulting with partners and stakeholders since January 2021. More recently, the public was invited to participate in three virtual information sessions, two thematic webinars and six public consultation sessions, held from May 10 to June 16, 2021 in each project area. At the same time, an online consultation platform is available at all times for citizens and stakeholders.

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44. Will the REM de l'Est be improved following the public consultations?

Yes. The REM de l'Est is a work in progress, and the public consultations serve to improve it, making it the best it can be.

CDPQ Infra has been consulting with partners and stakeholders since January 2021. More recently, the public was invited to participate in three virtual information sessions, two thematic webinars and six public consultation sessions, held from May 27 to June 10, 2021 in each project area. At the same time, an online consultation platform is available at all times for citizens and stakeholders.

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45. Can I access the recorded information/consultation session?

You can view the information sessions and webinars at https://cdpqinfra.com/en/myrem

46. I have some questions very specific to my situations and the impacts from this project. Right now, you are dealing with more global issues. How can I get more personalized service so that my questions are answered?

You can send your questions to our team at any time by phone at **(514) 847-2833** or by email at monrem@cdpginfra.com.



Network impacts

47. What connections will be available between REM de l'Est and other modes of public transit, especially the Pie-IX BRT, metro and bus network?

REM de l'Est will offer several connections to existing and planned networks. The <u>route map</u> and various <u>project fact sheets</u> outline which ones.

To be more specific, REM de l'Est will connect with all metropolitan public transit networks, thereby maximizing intermodality and the fluidity of travel. It will offer connections to:

- the metro green line (Honoré-Beaugrand and L'Assomption stations)
- the metro blue line (future Lacordaire station)
- the metro orange line (Bonaventure station, via Gare Centrale)
- the Mascouche commuter train line (Pointe-aux-Trembles station)
- Pie-IX BRT (future Pie-IX/Notre-Dame station)
- the REM (Gare Centrale)
- the STM, STL, RTL and exo bus networks.

This intermodality will also free up capacity on the Montréal metro, particularly the eastern branch of the orange line, thanks to new north-south service on the Island of Montréal.

The STM and ARTM are in the process of refining their analyses of how the REM de l'Est will impact the metro network and Mascouche commuter train line.

48. Will the REM de l'Est replace certain routes such as the bus network on Sherbrooke, for example?

Our primary objective is to develop a new public transit network that will more than double the size of the metro network in Montréal's East End. It is the ARTM's responsibility to coordinate public transit services in the greater Montréal area to ensure synergy of services.

49. How do you factor in travel time to the stations if there are so few of them?

The project will provide a new public transit option that will open up neighbourhoods, generate greater fluidity, reduce congestion and improve access to health, education, employment and leisure hubs. A light rail system attracts the population within a radius of more than 1000 m around the stations. For those who live outside this radius, connections to bus lines are planned.

With the significant time savings generated when using the REM de l'Est (between 25% and 70% depending on the sector), there will be a modal shift from solo driving to public transit.



50. What is the point of having a rapid transit line so close to the green line and the Pie-IX BRT?

The objective of the REM de l'Est is to meet the mobility needs of the territory for decades to come, and to complement existing networks.

The project will provide a new public transit option that will open up neighbourhoods, generate greater fluidity, reduce congestion and improve access to health, education, employment and leisure hubs.

REM de l'Est will also relieve some of the pressure on the green line, which has almost reached its saturation point. The metro, Pie-IX BRT and REM de l'Est are services designed to complement one another.

With the significant time savings generated when using the REM de l'Est (between 25% and 70% depending on the sector), there will be a modal shift from solo driving to public transit.

51. Won't REM de l'Est create competition with other public transit modes such as the metro, Pie-IX BRT and Train de l'Est, rather than compete with cars?

The objective of the REM de l'Est is to meet the mobility needs of the territory for decades to come, and to complement existing networks.

The project will provide a new public transit option that will open up neighbourhoods, generate greater fluidity, reduce congestion and improve access to health, education, employment and leisure hubs.

REM de l'Est will also relieve some of the pressure on the green line, which is almost at its saturation point. The metro, Pie-IX BRT and REM de l'Est are services designed to complement one another.

With the significant time savings generated when using the REM de l'Est (between 25% and 70% depending on the sector), there will be a modal shift from solo driving to public transit.

In that sense, REM de l'Est will not compete with existing public transit services, but offer a new option and new opportunities that will benefit all public transit users.

52. Knowing that the green line has an annualization factor of 312 days per year, what factor did you use to turn the number of passengers per day into the number of passengers per year?

We considered an average annualization factor of 300.

53. Why not simply extend the metro line from Honoré-Beaugrand?

The purpose of the REM de l'Est is to meet ridership demand in the coming decades. The green line cannot absorb any more users, since it is almost saturated right now. Furthermore, the Berri-UQAM transfer station is currently overloaded.

By creating new corridors in the east and northeast with a new connection to downtown, we are increasing overall public transit capacity. The REM de l'Est will also offer new destinations.

Furthermore, there will be a transfer station with the Honoré-Beaugrand metro station.



54. Several metro stations in Montréal are congested, especially Berri-UQAM. How can you be sure that you're developing a complementary network that won't make these stations even busier?

The objective of the REM de l'Est is to meet the mobility needs of the territory for decades to come, and to complement existing networks. By creating a new line, complementing the existing metro and bus networks, REM de l'Est will alleviate the current overcrowding of the orange and green lines and at Berri-UQAM station by offering an alternative for east-west travel to/from the heart of downtown, without having to transfer to the metro.

55. How many parking spaces will be available at the various stations? Will there be park-and-ride lots at each station?

Our goal is to have one or two park-and-ride lots. Since the design and traffic studies have not yet been completed, it is too early to say how many parking spaces there will be.

56. REM de l'Est has compromised the blue line project. Wouldn't it have been a good idea to consult with transit partners before announcing projects?

When the mandate to develop a structuring public transit project for the east end of Montréal was granted, the Government of Québec also issued certain guidelines, including one emphasizing the importance of the structuring project being connected to the STM metro network. The REM de l'Est project must complement the existing and planned networks in order to increase the fluidity and efficiency of travel for Montréalers on the east end, and to meet a significant and anticipated need. Intermodal stations are planned at Lacordaire (blue line), Honoré-Beaugrand and L'Assomption (green line).

We made sure to have discussions with the relevant authorities and the STM in order to properly align our two projects. We have regular meetings with the blue line project office.

57. Would it be possible for a bus to let passengers off or pick them up at the same level as an REM platform?

Several bus lines will be connected to the future REM de l'Est stations. Collaboration is in place with the STM, the ARTM and the City of Montréal to ensure effective links between the networks. Buses will be able to drop off riders near the stations' street-level entrances.

58. Does developing the REM in the East eliminate the potential for semi-reserved lanes in the Saint-Laurent area?

The REM de l'Est project was developed to complement existing and developing networks, such as the Pie-IX BRT. Close collaboration is taking place with the STM, the ARTM and the City of Montréal to ensure effective connections. The reserved lanes are the ARTM's responsibility.



59. How will ridership and saturated points on the metro's green line, the Pie-IX BRT and Mascouche train line be affected?

The ARTM, which is responsible for metropolitan transit planning, is currently analyzing the impact on existing networks. These studies are still in progress, and data will be available before the BAPE public hearings.

60. Why offer the citizens of Pointe-aux-Trembles and Hochelaga-Maisonneuve the same mode of transportation, when their needs are different?

The primary objective is to develop a new public transit network that will more than double the size of the metro network in Montréal's East End.

The REM de l'Est will be connected to the city's transit networks, thereby maximizing intermodality and fluidity of travel. It will offer connections to:

- the metro green line (Honoré-Beaugrand and L'Assomption stations)
- the metro blue line (future Lacordaire station)
- the metro orange line (Bonaventure station, via Gare Centrale)
- the Mascouche commuter train line (Pointe-aux-Trembles station)
- Les Faubourgs
- Pie-IX (future Pie-IX/Notre-Dame station)
- the REM (Gare Centrale)
- the STM, STL, RTL and exo bus networks.

This intermodality will also free up capacity on the Montréal metro, particularly the eastern branch of the orange line, thanks to new north-south service on the Island of Montréal.

The STM and ARTM are in the process of refining their analyses of how the REM de l'Est will impact the metro network and Mascouche commuter train line.

61. Will a non-compete clause like the one for the original REM be applied in favour of the REM de l'Est?

It is the ARTM's responsibility to coordinate public transit services in the greater Montréal area to ensure synergy of services.



Ridership

62. Can you make your ridership studies public?

Our ridership studies are still being refined. They will be published once they've been finalized, along with the environmental impact study, prior to the BAPE public hearings.

63. How did you define the public transit demand that CDPQ Infra is using to justify the REM de l'Est project?

CDPQ Infra conducts comprehensive studies to determine transit needs in a specific area. Our studies use data from origin-destination surveys, forecasted traffic flow data from the Ministère des Transports du Québec, and OPUS map usage data for the area in question. This information allows us to establish the general outline of citizen demand and gives us a comprehensive portrait of transit needs in that area. To ensure we consider future needs, our studies evaluate and take into account:

- changes in traffic patterns;
- regional demographic evolution;
- employment rates in the greater Montréal area;
- growth in Québec's GDP;
- forecasts by the Institut de la Statistique du Québec and the Conference Board of Canada.

64. Does the REM de l'Est include mechanisms to control a rebound in transit demand on the road network, such as a modification of the road network?

The model used to simulate transit demand for the REM takes into account the effects of the modal shift from solo driving to public transit. (add reduced passenger/km figure)

The Government of Québec is responsible for access to and use of highways.

The City of Montréal is responsible for access to municipal roads.

65. How many passengers will come from the expected future Pie-IX BRT and metro ridership?

Our ridership studies are still being refined. They will be published once they've been finalized, along with the environmental impact study, prior to the BAPE public hearings.

We expect that by 2044, REM de l'Est will carry 133,000 users per day. With the significant time savings generated when using the REM de l'Est (between 25% and 70% depending on the sector), there will be a modal shift from solo driving to public transit. Therefore our studies estimate that the REM de l'Est will save 165 million vehicle-km (by 2044) and thus reduce congestion in areas such as Sherbrooke and Notre-Dame streets.



66. Based on your calculations of 380 million passenger-km, what is the average number of kilometres passengers will travel each trip?

Preliminary estimates calculate that the average distance passengers will travel is 10 km per trip.

67. Of the 135,000 anticipated riders by 2044, how many of those are new users?

Our ridership studies are still being refined. They will be published once they've been finalized, along with the environmental impact study, prior to the BAPE public hearings. We estimate that nearly 50% of future REM de l'Est users currently do not have access to a structuring network.

We expect that by 2044, REM de l'Est will carry 133,000 users per day. With the significant time savings generated when using the REM de l'Est (between 25% and 70% depending on the sector), there will be a modal shift from solo driving to public transit. Therefore our studies estimate that the REM de l'Est will save 165 million vehicle-km (by 2044) and thus reduce congestion in areas such as Sherbrooke and Notre-Dame streets.

68. You indicate that there will only be 380 million passenger-kilometres in the REM de l'Est. If we compare those numbers to that of other automated metros around the world, there will be 2 to 3 times fewer passengers per station, per year. How do you explain the low numbers for REM de l'Est?

Our ridership studies are still being refined. They will be published once they've been finalized, along with the environmental impact study, prior to the BAPE public hearings.

That being said, the REM de l'Est project proposes a two-car light rail system, since this is the mode that corresponds to the mobility needs of users for the coming decades.

We expect that by 2044, REM de l'Est will carry 133,000 users per day. With the significant time savings generated when using the REM de l'Est (between 25% and 70% depending on the sector), there will be a modal shift from solo driving to public transit. Therefore our studies estimate that the REM de l'Est will save 165 million vehicle-km (by 2044) and thus reduce congestion in areas such as Sherbrooke and Notre-Dame streets.

69. Downtown Montréal has been impacted by the COVID-19 pandemic. Will the ridership demand be there?

The vision for the CDPQ Infra project is long term; we are talking about a 100-year perspective – decades during which mobility needs will continue to grow, efforts to reduce the carbon footprint generated by transportation will intensify, all in a context of accessibility and the speed at which people travel.



70. How will this impact ridership on the green and orange lines?

The REM de l'Est will be connected to the city's transit networks, thereby maximizing intermodality and fluidity of travel. It will offer connections to:

- the metro green line (Honoré-Beaugrand and L'Assomption stations)
- the metro blue line (future Lacordaire station)
- the metro orange line (Bonaventure station, via Gare Centrale)
- the Mascouche commuter train line (Pointe-aux-Trembles station)
- Les Faubourgs
- Pie-IX (future Pie-IX/Notre-Dame station)
- the REM (Gare Centrale)
- the STM, STL, RTL and exo bus networks.

This intermodality will also free up capacity on the Montréal metro, particularly the eastern branch of the orange line, thanks to new north-south service on the Island of Montréal.

The ARTM is in the process of refining its analyses of how the REM de l'Est will impact the metro network and Mascouche commuter train line. The results of these analyses will be made available prior to the BAPE public hearings.

71. With the COVID-19 pandemic, public transit networks around the world have experienced drastic drops in ridership and are in financial jeopardy. What will happen if ridership is less than expected?

The vision for the CDPQ Infra project is long term; we are talking about a 100-year perspective – decades during which mobility needs will continue to grow, efforts to reduce the carbon footprint generated by transportation will intensify, all in a context of accessibility and the speed at which people travel.

We are confident in the guiding principles that led to the development of our project vision and the choice of investment.

Current studies also show that public transit will remain a dominant mode of travel over the long term. Once more tangible data pertaining to impacts or behavioural changes is available, ridership forecasts will be updated.

The REM de l'Est project is intermodal and creates connections with the entire public transit network in Montréal. The project improves connectivity in Montréal's East End to the rest of the city.



Travel times

72. How long will it take to travel between stations?

The travel times between the different stations have yet to be precisely established. However, preliminary travel times between a station and the terminal station can be estimated according to the distance to be covered. For example, the travel time between Pointe-Aux-Trembles and downtown is 30 minutes; at the halfway point of the trip, we can estimate the time to be about 15 minutes.

73. Generally, the trip from Rivière-des-Prairies to downtown takes 90 minutes. How are you going to reduce it to less than 30 minutes?

The current travel time by public transit between CÉGEP Marie-Victorin and downtown varies between 50 minutes and 1 hour and 15 minutes. The arrival of REM de l'Est and its northeast branch will make it possible to complete this trip (about 15 km) in 30 minutes. This performance will be achieved thanks to an average commercial speed of more than 30 km/h over the entire route, without any transfers. High peak hour frequencies are complemented by high off-peak, evening and weekend frequencies.

74. How long will it take to get from downtown to Maisonneuve Hospital?

The preliminary travel time as currently calculated by our engineers between downtown and the Maisonneuve-Rosemont Hospital station is approximately 17 minutes. That estimate will be refined as our studies progress.



Urban integration

75. A group of architects abandoned the project a few weeks ago. Will you go back to the drawing board to propose a more acceptable project?

Our ambition is to make the REM de l'Est a collective project that will make everyone proud.

When the project was announced, CDPQ Infra committed to proposing a unique architectural integration inspired by best practices from around the world.

We want the REM de l'Est to be integrate seamlessly in terms of design and architecture.

We know that we can be successful if we work with our partners and stakeholders, and consult with the public.

Many meetings have been held in the past few months. All recognize the importance of public transit in the east.

In response to one of the main demands expressed by the community, a committee of independent and multidisciplinary experts, along with renowned architectural firm Lemay, will help develop this inspiring vision of architectural integration for the REM de l'Est. The primary mandate of this committee is to establish the guiding principles for the architectural concept of the future network and its urban integration along the entire route. This work will help establish the prescriptive design that will be imposed for the REM de l'Est's request for proposals process.

We are also in the midst of an extensive public consultation process where we meet with citizens to improve and optimize our project.

76. Can you guarantee the citizens that the project will look good? Both downtown and along the entire length of the route?

We have made a strong and firm commitment that the REM de l'Est will be exemplary in terms of architecture and urban integration along its entire route.

In response to one of the main demands expressed by the community, a committee of independent and multidisciplinary experts, along with renowned architectural firm Lemay, will help develop this inspiring vision of architectural integration for the REM de l'Est.

77. Would it be possible to have more information about the downtown portion, to get a better vision of the visual impact? Do you intend to release the studies and images/projections to the public so that we have a general idea of what will be done?

In response to one of the main demands expressed by civil stakeholders, a committee of independent and multidisciplinary experts was set up by the Government of Québec to help develop the inspiring vision of architectural integration for the REM de l'Est. The primary mandate of this committee is to participate, with the Lemay architectural firm, in establishing the guiding principles for the architectural design of the future network and its urban integration along the entire route. This work will help establish the prescriptive design that will be imposed for the REM de l'Est's request for proposals process.



The architectural and urban integration proposals resulting from the committee's work will be shared with the public for comment and feedback in the fall of 2021, prior to the BAPE public hearings.

78. How will you ensure the safety of pedestrian access to the stations?

Our desire is to propose an infrastructure that will be safe in and around all station structures.

We will conduct traffic studies around the stations and implement measures to promote safety for all, both during the day and at night.

We are also working with the boroughs to carefully consider pedestrian access to the stations.

We want to contribute to the City of Montréal's Vision Zéro.

79. How will you maintain the distinctive elements of the neighbourhoods you pass through?

Each section of the route has its own sensitive characteristics and elements. Our team of urban planners and architects, along with the expert committee, will characterize the environments through which the route will run, taking into account the elements that must be highlighted in the project.

80. How many traffic lanes will be removed on René-Lévesque Boulevard and East Sherbrooke Street to accommodate access to the REM stations?

The REM de l'Est project will be located down the middle of the lanes, where the median is currently located. However, a committee of independent and multidisciplinary experts, along with renowned architectural firm Lemay, have been mandated with developing an inspiring vision for the urban integration of the REM de l'Est, including a in-depth review of the scenarios to redevelop public roads for which the City of Montréal is responsible. The committee's recommendations will be made public before the BAPE hearings scheduled for 2022.

81. Could lanes be removed on Notre-Dame and René-Levesque to make room for the REM de l'Est?

The REM de l'Est project will be located down the middle of the lanes, where the median is currently located. However, a committee of independent and multidisciplinary experts, along with renowned architectural firm Lemay, have been mandated with developing an inspiring vision for the urban integration of the REM de l'Est, including a in-depth review of the scenarios to redevelop public roads for which the City of Montréal is responsible. The committee's recommendations will be made public before the BAPE hearings scheduled for 2022.

82. How will the structures integrate with the parks, bike paths and medians?

All these variables are taken into account in our analyses and studies. We are working to avoid, minimize or compensate for impacts, where necessary, and are working with the City of Montréal and our partners to ensure that the environments affected by the project are restored and enhanced where possible.

Moreover, CDPQ Infra's ambition is to make the REM de l'Est a collective project that will be a source of pride, by working together with the population, partners, independent experts, renowned professionals and relevant authorities. That aspect will be part of the responsibilities entrusted to the



multidisciplinary committee of experts on architecture and urban integration mandated by the Government of Québec to participate in developing the architectural concept guidelines that will be imposed on consortiums as part of the request for proposals process. This committee will also submit recommendations to the CDPQ Infra design team, prior to the design stage, regarding the architectural quality and urban integration of the network.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

83. What will the Tricentennial Station look like?

At this point, the REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects.

The elevated structure and stations will receive special attention in terms of architectural treatment, ensuring they feature a modern and symbolic aesthetic.

The Québec-based architectural firm Lemay has also been mandated to ensure station structure and architecture integrate harmoniously with the built environment.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

84. We live near the Monument-National. When we wanted to change certain aspects of the exterior of our building, the *Ministère de la Culture* asked us to respect very strict rules. What about the structure of the REM, which will run within 30 metres of the Monument-National?

The REM de l'Est is still in the detailed project planning phase, which will last through the end of 2022. Our teams are finalizing finalize the technical feasibility and design studies that will be used to detail such aspects. In terms of heritage, the project is based on the following design criteria:

- Adapt and enhance the elements that characterize each segment of the route, including heritage, environment and other elements of interest.
- Avoid impacting heritage buildings and spaces.

We are also working with the *Ministère de la Culture et des Communications* to ensure that the project complies with all existing regulations.

Our ambition is to make the REM de l'Est a collective project that will make everyone proud. When the project was announced, CDPQ Infra committed to proposing a unique architectural integration inspired by best practices from around the world. We want the REM de l'Est to be integrate seamlessly in terms of design and architecture. We know that we can be successful if we work with our partners and stakeholders, and consult with the public.



85. CN and the City of Montréal are working with associations such as Les Amies du Pied-ducourant to restore access to the river for citizens. Do you plan to work with these stakeholders to coordinate access to the river in Sainte-Marie (Jacques-Cartier Bridge sector) with the future REM?

We are working closely with the City of Montréal and borough of Ville-Marie to ensure the REM de l'Est integrates as seamlessly as possible with the neighbourhoods it passes through, including the Pieddu-courant area.

In terms of access to the river, the advantage of the REM de l'Est's elevated structure, particularly on Notre-Dame Street in the Sainte-Marie area, is that it maintains that type of access.

86. In your opinion, what social impact will these major urban transformations in the Centre-Sud and Hochelaga neighbourhoods have?

The REM de l'Est in Montréal will create more than 60,000 jobs during construction and contribute \$6.3 billion to Québec's GDP. It will serve Montréal's main employment hub, downtown, as well as employment hubs in the east such as the Port of Montréal, the Olympic Stadium area, the Maisonneuve-Rosemont hospital sector and numerous industrial parks. In making these employment hubs accessible by public transit, the REM de l'Est will contribute to improving attractiveness for businesses and organizations in the area and the retention of workers in the sector.

The REM de l'Est will also provide citizens in these neighbourhoods with efficient travel to downtown and destinations outside of downtown, including knowledge hubs. Eventually, with the two REM networks, CDPQ Infra will add approximately 99 km of metro on the Island of Montréal, which will benefit all citizens of the surrounding neighbourhoods.

87. How will you assess the impact on social separation that an overhead structure on Sherbrooke Street East may create? How do you intend to "humanize" the elevated structures, knowing that they will be a source of disturbance?

Integration of the structures into the built environment will respect the urban fabric, and be done in coordination with the City of Montréal and the various boroughs. The Lemay firm has been mandated to design these visionary urban developments to integrate seamlessly into their environments. The multidisciplinary committee of experts on architecture and urban integration, mandated by the Government of Québec, will also make recommendations to the CDPQ Infra design team, prior to the design stage, regarding urban integration, to ensure that the structures integrate harmoniously into the neighbourhoods.

Multidisciplinary teams are in charge of designing the elevated structures; for example, sound mitigation measures will be developed jointly by engineers and architects, in order to create a safe and well-integrated environment. Nuisances, both during construction and operation, will be governed by a strict regulatory framework.

Furthermore, since the REM de l'Est will be an elevated structure, the urban fabric will be maintained and new citizen spaces can be created.



88. Will the REM de l'Est have an impact on the Ray-Mont Logistiques project?

A notice of reservation was issued for a portion of Ray-Mont Logistiques' land. As with any notice of reservation or possible expropriation, our goal is to have as little impact as possible on the operations of the property owners involved.

89. How will the REM de l'Est fit into the new Faubourgs district?

CDPQ Infra is working with all stakeholders, including the City of Montréal, to adapt to the regulations in force following the adoption of the Faubourgs *Plan particulier d'urbanisme (PPU)*. Several underground scenarios were studied for the REM de l'Est in downtown Montréal. These scenarios took into account the downtown underground infrastructure, including the structural integrity of the foundations of surrounding downtown buildings, as well as construction with single- or twin-tube tunnels. The high risks each scenario presented justified setting them aside.

An elevated route in the downtown area limits the network's footprint, minimizes the impact on roadway development and maintains existing pedestrian, bicycle and automobile routes. Furthermore, to ensure a successful urban and architectural integration worthy of the world's greatest metropolises, a multidisciplinary expert committee composed of independent members will play a major role.

90. Will René-Lévesque Boulevard be completely redeveloped, in order to have a harmonious vision?

We are working with all stakeholders, including the City of Montréal, to implement a concerted and harmonious vision with the community. The committee of experts will ensure the elevated structure and stations receive special attention in terms of architectural treatment, ensuring they feature a modern and symbolic aesthetic for downtown Montréal. The Québec-based architectural firm Lemay has also been mandated to ensure station structure and architecture integrate harmoniously with the built environment. We are in the detailed planning phase, which occurs prior to the final design stage. This is the most opportune time for the expert committee and architectural firm to contribute to project optimization and improvement.



Route

91. What are the main axes of the route?

The common segment begins downtown and runs overhead down the centre of René-Lévesque Boulevard, from Robert-Bourassa Street to Notre-Dame Street. East of downtown, the route continues on Notre Dame Street before branching off northward near Dickson Street and splitting into two separate branches.

The Marie-Victorin branch provides access to the Cégep Marie-Victorin sector and begins as an elevated structure at the end of the common segment before transitioning to underground near L'Assomption Boulevard. Then, the route continues northward, providing service to the Maisonneuve-Rosemont Hospital and veers near Lacordaire Boulevard and Jean-Talon Street, where the future Lacordaire station on the blue line extension will be built. The route then crosses Highway 40 and continues to Saint-Leonard, still underground, following Lacordaire Boulevard.

The Pointe-aux-Trembles branch serves the east end of Montréal and begins east of the common segment near Dickson Street, then runs along Souligny Avenue before crossing Highway 25 to Sherbrooke Street East, connecting with the green line's Honoré-Beaugrand terminal station. The route is elevated over Sherbrooke Street in the Mercier East sector, then continues through Montréal-Est to Pointe-aux-Trembles. The terminal station for this branch is located near the Pointe-aux-Trembles train station, offering a connection to the Mascouche commuter train line.

92. Underground infrastructure allows for better urban integration, especially for the downtown area. What were the reasons for proposing an elevated solution for the project and downtown?

We conducted an exhaustive analysis to identify the best mobility solution to meet the objectives that the government set, i.e. to connect downtown Montreal to the eastern tip of Montréal Island and CÉGEP Marie-Victorin with a structured transit network.

Our experts assessed the different modes of transit (Tramway, LRT), analyzed the different methods to integrate that solution (surface, elevated, underground) for the entire project, and most specifically in the downtown area.

We left no stone unturned in evaluating the technical feasibility of a tunnel route in the downtown area. Last February, we also published a summary of the analyses conducted, which you can view here. The analysis was not conclusive:

- The metro's existing yellow and orange line tunnels make it impossible to add a new tunnel. It would be necessary to run a new tunnel between the metro's yellow and orange lines, but there is not enough space to accommodate a tunnel boring machine.
- There are century-old sewer and water lines that prevent use of a tunnel boring machine.
- Lastly, the transition area needed for a tunnel entrance would create physical barriers on Notre
 Dame over a distance of more than 500 metres, blocking important north-south routes in that area.



For the downtown segment, the light rail transit system on an overhead structure is the only one that meets transit objectives and minimizes construction risks while providing an opportunity to adopt innovative urban and architectural integration strategies.

The elevated structure and stations will receive special attention in their architectural treatment, to ensure they endow downtown Montréal with a modern and symbolic aesthetic. There are examples of other places in the world where similar networks have been successfully integrated into the urban fabric.

The Government of Québec set up a multidisciplinary expert committee who will submit recommendations prior to the design stage, to optimize the network's architectural integration into the communities along its route.

The renowned, Québec-based architectural firm Lemay has also been mandated to ensure station structure and architecture integrate harmoniously with the built environment.

An elevated light rail system that criss-crosses Montreal's East End will offer a new signature for Montreal. Passengers will have access to interesting visual perspectives as they discover the diverse neighbourhoods along the way, as well as breathtaking views of the Saint-Lawrence River. Local residents, workers and visitors will also benefit from new construction with a harmonious and sustainable architecture, which will also allow for recreational use (bicycle path, running track, linear park, etc.).

93. Several people have asked for the REM route to extend east of Highway 25, in the Rivière-des-Prairies sector. Will you modify the route?

The REM de l'Est project is still in the planning phase. Since December 2020 and until 2022, we will continue detailed studies, ongoing discussions with the various stakeholders in the sector, as well as public consultations that will allow us to optimize and improve the project.

We have begun our public information and consultation process which will also allow us to meet with the population.

The original REM is a good example: if you compare the details of the project that was announced in 2016 and the project now under construction, many adjustments were made to meet the demands of the communities (adding stations, moving equipment, extending a tunnel, adding accesses, etc.).

94. What will René-Lévesque and Notre-Dame look like from north to south? What will be the visual impact?

Our experts will think the elevated route through carefully, taking into account the recommendations of the multidisciplinary expert committee; they will consider urban and architectural integration as well, to ensure it harmonizes with the built environment. Different avenues will be studied to match the structure with its environment. We want it to be beautiful, symbolic.



95. When will the final route be presented, especially the station locations? Will there be an option to revise it following the consultations?

The REM de l'Est project is still in the detailed planning phase. Over the next two years, we will continue detailed studies, ongoing discussions with the various stakeholders in the sector and public consultations that will allow us to optimize and improve the project.

We have begun our public information and consultation process which will also allow us to meet with the population. A report on all the recommendations submitted by members of the public will be made available on the CDPQ Infra website at the end of summer 2021 and a review of the ideas retained will be presented by the end of 2021.

Following the directive issued by the *Ministère de l'Environnement et de la Lutte contre les changements climatiques* (MELCC), the REM de l'Est project will be submitted to the *Bureau d'audiences publiques sur l'environnement* (BAPE) in 2022. During this process, members of the public will be able to stay informed and share their opinion on the project.

96. How did you determine where the stations would be located? Are the station locations final?

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

97. For the branch that runs toward Pointe-aux-Trembles, why isn't there a station planned at the corner of Souligny Avenue and Cadillac Street, to better serve the surrounding neighbourhood?

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land. More specifically, for Cadillac Street and the Notre-Dame-des-Victoires sector, the closest REM station is the L'Assomption station, which just under 800 m from all the residences in this sector, north of Souligny.

98. Could the proposed relocation of the Maisonneuve-Rosemont Hospital from Rosemont Boulevard to Hochelaga Street and the extension of the metro's blue line to Anjou force CDPQ Infra to abandon the northeast branch of the REM due to lack of profitability and ridership?

No. For one thing, the northern branch fulfils some of the Government of Québec's strategic orientations published in 2019; it also meets a great need for mobility in that area. The Lacordaire axis has a high potential for ridership and is therefore strategic for servicing this sector.



99. Why is it possible to go underground to Montréal-Nord, but not downtown or on Sherbrooke?

There are three main reasons for digging a tunnel on the Marie-Victorin branch:

- 1. The geotechnical characteristics of the soil along the route of the northern branch from L'Assomption to Montréal-Nord are optimal for building an underground infrastructure with a TBM, without impacting the built environment. The rock is shallow and not fractured.
- 2. There are no major infrastructure lines to cross (e.g. sewers, water mains, oil pipelines).
- 3. The good rock conditions allows the tunnel to be built at an average depth of less than 20 m, which will not affect ridership.

100. Why is the Viauville station listed as a potential station?

Certain station locations are listed as "potential," since they depend upon completion of the urban development plans by the cities in which they are located. Once these plans are finalized, we will be able to confirm whether or not the stations will be added.

101. Has the REM de l'Est project been inspired by other similar projects around the world?

CDPQ Infra's ambition is to make the REM de l'Est a collective project that will be a source of pride, by working together with the population, independent experts, renowned professionals and relevant authorities. That aspect will be part of the responsibilities entrusted to the multidisciplinary committee of experts on architecture and urban integration mandated by the Government of Québec to participate in developing the architectural concept guidelines that will be imposed on consortiums as part of the request for proposals process. This committee will also submit recommendations to the CDPQ Infra design team, prior to the design stage, regarding the architectural quality and urban integration of the network.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

There are <u>several examples</u> around the world that can inspire us, including:

- LightRails (Birmingham, USA)
- Nordpark Cable Railway (Innbruck, Austria)
- Line M1 and M2 (Copenhagen, Denmark)
- Grand Paris Express (Paris, France)
- The Bentway (Toronto, Canada)
- Washington/Wabash Station (Chicago, USA)



102. How will you build a structure on the Sherbrooke Street median?

In a context of heavy traffic such as is the case on East Sherbrooke Street, engineering studies conducted to date recommend that the elevated structure be built in the centre of the roadway, with the columns located in the medians.

This design maintains north-south fluidity, minimizes impact on road layout and pedestrian and bicycle paths, and significantly reduces the amount of property that needs to be expropriated.

103. The northern branch of the REM de l'Est toward Marie-Victorin will be underground because Lacordaire Boulevard is too narrow, unlike Sherbrooke Street in the Mercier East sector. Yet the boulevard and Sherbrooke Street are the same width. How do you justify this choice?

The built environment differs from one sector to another, with mainly low-rise buildings along Lacordaire Boulevard. An additional technical study was therefore carried out on this sector to assess the possibility of an underground route; that analysis proved conclusive. In fact, in the L'Assomption and Lacordaire boulevard sector, there are very few physical obstacles underground such as metro lines, sewers or water mains. Furthermore, the geotechnical conditions in that sector are favourable for building a tunnel. The bedrock is shallow, allowing the TBM to build the tunnel safely, without impacting the built environment.

104. How will the project take shape on Notre-Dame East?

The preferred location will be on the north side of the street. The elevated route along Notre-Dame Street East will provide more easily accessible stations for users and will not affect the bike path or the greenway. This option also allows the City of Montréal to carry out its project to upgrade the street to an urban boulevard.

Construction on the south side or in the middle of Notre Dame Street is not recommended due to the major conflicts it would create with municipal services and public utilities. However, our analyses continue, with special emphasis on avoiding impacts on Morgan Park.

105. How will the project take shape between Souligny and Sherbrooke?

In the Mercier–Hochelaga-Maisonneuve sector, the REM de l'Est will be elevated on the north side of Notre-Dame Street, near L'Assomption, on Souligny, west of Highway 25, and down the centre of Sherbrooke Street, east of Highway 25.

The Sherbrooke Street route allows us to provide service for neighbourhoods and industrial sectors that have been targeted for redevelopment and requalification plans. In addition, the Sherbrooke Street route allows us to offer intermodal transfer at Honoré-Beaugrand Station; it also provides all the necessary conditions for light rail.

Following meetings with municipal officials and local stakeholders, we decided to study an alternative route through the CN-owned railroad right-of-way along Souligny Avenue. These analyses are still in progress.



106. Why don't you use Papineau Street, instead of Lacordaire?

Our goal is to increase public transit use by servicing new corridors and offering a solution that complements the existing network.

Our analyses have indicated significant ridership levels for a new network that would run on Papineau, but because of its proximity to the east branch of the orange line, more than half of the clientele would be from the orange line and would therefore not attract many new public transit users.

Furthermore, Papineau Street is not close to Highway 25; being in close proximity to that major highway was one of the government's guidelines when CDPQ Infra was awarded the mandate.

Lastly, this axis, though densely populated, services very few strategic hubs that generate travel.

Therefore, the reference project plans to use L'Assomption Boulevard to the south to connect to Lacordaire Boulevard just past the Maisonneuve-Rosemont Hospital. Our studies have shown that this route has high levels of potential ridership – higher than the Langelier Boulevard route – and services more major travel-generating hubs. It will also provide a new structuring transit option to neighbourhoods that are currently under-serviced by public transit.

107. How do you plan to service the north portions of the island?

The REM de l'Est in Saint-Léonard and Montréal-Nord will provide access to green spaces, cultural and educational destinations and local popular attractions. In fact, the Ruisseau De Montigny nature park and Wilfrid-Bastien park are both within close distance of the network stations. The Centre Leonardo da Vinci, Salle de spectacles Désilets and Cégep Marie-Victorin are located along the reference route. Besides linking to downtown, the REM de l'Est will be an efficient public transit system that allows commuters to discover and enjoy the attractions of northeast Montréal.

The east and west branches of REM de l'Est allow for high frequencies on each branch (every 4 minutes during peak hours). This high frequency offers unprecedented service. For destinations farther from the stations, we are working with other transit operators, including STM, to consider new connections between existing or new bus lines to serve REM de l'Est as optimally as possible.

108. Will all stations be accessible to people with reduced mobility?

Yes. All 23 REM de l'Est stations will be universally accessible and equipped with platform sliding doors, elevators and escalators. WiFi will also be available across the entire network.

109. What measures will CDPQ Infra put in place to avoid disrupting rail traffic?

Working closely with rail operators, REM de l'Est will be designed and built to minimize impacts on rail traffic.



110. Will all stations be accessible via bicycle paths?

Our desire is to propose an infrastructure that will be safe in and around all station structures. We will conduct traffic studies around the stations and implement measures to promote safety for all, both during the day and at night.

CDPQ Infra works with design assumptions intended to:

- focus on active transit access, particularly from pedestrian and bicycle paths;
- encourage the use of public transit;
- provide universal accessibility to system users.

In addition to these general principles, there is also the desire to promote a user-friendly, functional design that is consistent with the development in current neighbourhoods.

111. Will the REM de l'Est have an impact on bicycle paths?

We are working to avoid, minimize or compensate for impacts, where necessary, and are working with the City of Montréal and our partners to ensure that the environments affected by the project are restored.

Our desire is to propose an infrastructure that will be safe in and around all station structures. We will conduct traffic studies around the stations and implement measures to promote safety for all, both during the day and at night.

112. Is there a possibility that CDPQ Infra would abandon the northeast branch of the REM because of low profitability and ridership?

No. The reference project presented in December 2020 is the result of 18 months of study and analysis. This means that the northeast branch of the project responds to firm needs and is an effective mobility solution that will maximize fulfilment of all criteria analyzed to best meet expectations.

The project will provide a new public transit option that will open up neighbourhoods, generate greater fluidity, reduce congestion and improve access to health, education, employment and leisure hubs.

113. Will grade crossings be built when the REM de l'Est route intersects existing roads?

No, there will be no grade crossings because the REM de l'Est will run on an exclusive elevated or underground structure, without having to interact with road users. Pedestrian crossings will be adapted to ensure safety around the structure. The roadway will also be redesigned to accommodate the new infrastructure, in accordance with road safety standards.

114. Was population density taken into account in the analyses to determine the route?

Yes, population density is one of the things we took into account in producing the reference project presented in December 2020.



115. Where exactly will the REM de l'Est go underground near Sherbrooke Street?

At this stage of the project, it is too early to answer that question. The REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects. Our team is working with the City of Montréal and its boroughs to determine the optimal location for transitioning from elevated to underground on the Cégep Marie-Victorin branch.

All of this information will be made public before the BAPE public hearings scheduled for 2022.

116. Will the Marie-Victorin Station occupy one of the green spaces on campus, or will it be located off-campus?

The current Marie-Victorin station location is off the Cégep campus.

117. Where will the line run east through Morgan Park?

At this stage of the project, it is too early to answer that question. That said, our goal is to avoid impacts on Morgan Park. The REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

118. Will it be possible to get on the REM from the Honoré-Beaugrand metro station?

Yes. The station will be located east of the Honoré-Beaugrand and East Sherbrooke Street intersection. The station will have two entrances, one on either side of Sherbrooke Street, both connected to the existing metro stations and bus terminals.

119. Why not use existing rights-of-way, such as the CN right-of-way between Souligny and Dubuisson?

The route largely follows municipal road rights-of-way. Following meetings with municipal officials and local stakeholders, we have indeed decided to study an alternative route through the CN-owned railroad right-of-way along Souligny Avenue. These analyses are still in progress.

120. How will the link with Maisonneuve-Rosemont Hospital be made if the REM de l'Est runs on Lacordaire? Has the possible relocation of the hospital been taken into account?

Currently, the Maisonneuve-Rosemont station is planned to be located on the hospital site, which means that the hospital will be serviced directly by the REM de l'Est.



121. Why didn't you choose the Mascouche EXO train route for the REM de l'Est? Why not use existing Train de l'Est infrastructures? How will this impact Mascouche line ridership?

The Montréal segment of EXO's train line runs on a CN-owned right-of-way where freight trains still operate. REM de l'Est is a light rail system, which uses different technology than commuter and freight trains. A light rail system is incompatible with heavy trains.

ARTM is in the process of refining its analyses of how the REM de l'Est will impact the metro network and Mascouche commuter train line.

122. Where will the Pie-IX Sud Station be located? Can we see the station plans?

We currently plan for the station to be located on the northeast corner of the Pie-IX and Notre-Dame East intersection. Discussions with the STM are ongoing and the final location will be decided in the coming months.

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

The elevated structure and stations will receive special attention in terms of architectural treatment, ensuring they feature a modern and symbolic aesthetic.

The Québec-based architectural firm Lemay has also been mandated to ensure station structure and architecture integrate harmoniously with the built environment.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

123. Will the Marie-Victorin Station be on the Cégep campus?

The current Marie-Victorin station location is off the Cégep campus.

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

124. How will users transfer between the REM and the Berri-UQAM station?

As of now, the transfer between the Labelle and Berri-UQAM stations will be via ground-level pedestrian link.

125. Has CDPQ infra evaluated the possibility of moving the route along arteries such as highways 25 and 40?

We conducted an exhaustive analysis to identify the best mobility solution to meet the objectives that the government set, i.e. to connect downtown Montreal to the eastern tip of Montréal Island and CÉGEP Marie-Victorin with a structured transit network.

We surveyed the east end of Montréal to determine the best corridors in terms of structuring impact on mobility, ridership, new users, interconnection with existing networks and travel generators (businesses, institutions, hospitals, etc.). It is important to note that a public transit system must be close to the people – it must be part of development and urban reality.



126. Do you anticipate integrating the future Lachine tramway or taking it into consideration in developing the REM de l'Est route?

CDPQ Infra studied the southwest axis between the borough of Lachine and downtown. Recommendations from this preliminary report have been forwarded to the relevant authorities for further action. A project office has been set up by the Government of Québec with the City of Montréal to study this corridor.

127. Have you studied the possibility of using the Ville-Marie Expressway to bring the REM to Notre Dame Street?

Several underground scenarios were studied for the REM de l'Est in downtown Montréal. These scenarios had to take into account the existing underground infrastructure of the downtown area, including the structural integrity of the Montréal metro tunnels (yellow and orange lines), as well as the diameter and age of various City of Montréal water and sewer mains. These scenarios also evaluated the structural integrity of the foundations of surrounding downtown buildings, as well as construction with single- or twin-tube tunnels. The high risks each scenario presented justified setting them aside.

A scenario involving the use of the Ville-Marie Expressway to connect the REM de l'Est to downtown was studied, but was rejected because the slopes and curves of the existing tunnel, designed for road traffic, do not allow for the integration of light rail. Furthermore, this option does not connect the network to Gare Centrale, which is one of the most popular destination for users, according to our studies.

An elevated route in the downtown area limits the network's footprint, minimizes the impact on roadway development and maintains existing pedestrian, bicycle and automobile routes.

That aspect will be part of the responsibilities entrusted to the multidisciplinary committee of experts on architecture and urban integration mandated by the Government of Québec to participate in developing the architectural concept guidelines that will be imposed on consortiums as part of the request for proposals process. This committee will also submit recommendations to the CDPQ Infra design team, prior to the design stage, regarding the architectural quality and urban integration of the network.

128. What reasons justify selecting Sherbrooke for the eastbound route, rather than Notre-Dame?

Notre-Dame Street east of Highway 25 is not wide enough to accommodate an elevated structure. Its proximity to water significantly reduces the area to be serviced.

Furthermore, using Sherbrooke Street allows us to service denser neighbourhoods, unlike Notre-Dame, which is bordered by the river to the south. It also allows us to offer a connection to the Honoré-Beaugrand metro and better serve strategic poles for redevelopment in the east, such as the industrial sector of the Pointe de l'île.



129. What reasons justify selecting Sherbrooke for the eastbound route, rather than the existing Souligny railway right-of-way?

The Sherbrooke Street route allows us to provide service for neighbourhoods and industrial sectors that have been targeted for redevelopment and requalification plans.

Furthermore, it also allows us to offer an intermodal connection to the Honoré-Beaugrand station.

It has all the necessary conditions for building a light rail system.

Following meetings with municipal officials and local stakeholders, we decided to study an alternative route through the CN-owned railroad right-of-way along Souligny Avenue. These analyses are still in progress.

130. Why not start the 4% slope descent at Souligny Street, where there are no intersecting streets, and then bring the REM out east of Contrecoeur Street where there are no streets or residents?

Crossing Highway 25 underground must be done at a great depth, which would involve creating a transition zone away from the highway, blocking either Candiac or Haig Street, which are the only two north-south routes in this zone. A deep tunnel would also make connecting to the Honoré-Beaugrand metro station very complex.

131. What are the reasons for choosing an elevated route on Sherbrooke?

Building a tunnel requires transition zones so that the train can descend from the elevated structure into the underground.

In order to avoid creating two 500-metre transition zones on the east and west ends of the Tétraultville neighbourhood on East Sherbrooke Street – where intersections would have to be eliminated – an elevated route was favoured.

Furthermore, in an area with heavy traffic, as is the case on East Sherbrooke Street, engineering studies conducted to date recommend that the elevated structure be built in the centre of the roadway, with the columns in the medians.

This design maintains north-south fluidity, minimizes impact on road layout and pedestrian and bicycle paths, and significantly reduces the amount of property that needs to be expropriated.



132. Why have certain properties already been expropriated when the project hasn't even been accepted yet? How many expropriations will be required for the project? How many households, businesses, schools, hospitals? How much will expropriations cost?

Expropriations have not yet begun. The acquisitions required for the project will be analyzed as soon as the route is set and finalized.

The route primarily runs on municipal road rights-of-way, and a large majority of the lots that will be required are public land.

Approximately 60 private lots may be required, but we are working to optimize the route to minimize expropriations.

To avoid speculation, the lots in question have been the subject of land banking, since there is a high potential for overpricing. We are referring here, to private land parcels.

The process of acquiring these lots will be done by expropriation, at fair market value.

Some 60 lots are currently covered by the Order in Council, a number we wish to limit given the scope of this project, which will extend over 32 km and include the construction of 23 new light rail stations.

133. Why are parks considered strategic hubs in the trip analysis? Have you presented an analysis showing the proposed route with respect to housing or employment density?

Green spaces are trip generators and it is important to consider them in the mobility analysis. Access to green spaces by public transit is a strategic asset, in addition to strategic employment, knowledge and health hubs.

The traffic analyses performed also take into account housing and employment density. This is why, for example, Sherbrooke Street was selected east of Highway 25.

134. It was recently noted that the arrival of the REM de l'Est would compromise a long-awaited grocery store project in Contrecoeur. This is more proof of the lack of consultation. Wouldn't it have been better for the consultations to take place beforehand?

The REM de l'Est project is still in the detailed planning phase. The progress of the technical studies, our ongoing discussions with stakeholders and a public consultation with the population will allow us to optimize and improve the project.

We are aware of the grocery store project in this area and are very sensitive to the importance of local services. We are currently evaluating alternative sites in collaboration with the City of Montréal.

135. How do you respond to citizens who are frustrated that the REM de l'Est does not go all the way to Mascouche?

The REM de l'Est will allow residents of the Mascouche, Terrebonne and Repentigny sectors to save a significant amount of time with a connection to the Pointe-aux-Trembles station.



136. The citizens of Tétreaultville especially say that they will be very poorly served by the REM de l'Est. Will you take their grievances into consideration and review the route in the area?

The REM de l'Est project is still in the planning phase. Since December 2020 and until 2022, we will continue detailed studies, ongoing discussions with the various stakeholders in the sector and public consultations that will allow us to optimize and improve the project.

137. Can you add a station in the heart of the Tétreaultville neighbourhood to better serve the people who live there?

Subsequent to meetings with elected officials, stakeholders in the area and citizens, CDPQ Infra is studying alternative locations for the Contrecoeur station. An alternative location will be proposed in the fall

We have taken note of the borough's requests for additional stations in Tétreaultville. At this stage of the project, our analyses show that the stations identified in the reference project will meet the needs of the local population.

138. Why not have the REM de l'Est go through Vieux-Montréal instead of on René-Lévesque?

This is one of the scenarios that was studied. At that point on the route, we would need to run beneath the yellow line, which is very deep in this sector. The bedrock, which is necessary to use a tunnel boring machine, is also very deep in the sector.

We would end up with a route that is more than 40-50 metres deep, which studies have shown has an effect on ridership, since it takes so long to reach the stations from ground level. Ultimately, running through the Vieux-Port does not facilitate construction from a technical point of view, and in fact adds more limitations in terms of traffic; for that reason, this option was not retained.

139. Would it be possible to add stations in Montréal East between Contrecoeur and Saint-Jean-Baptiste?

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

All land required for the project has been the subject of land banking, to avoid speculation. The process of acquiring these lots will be done by expropriation, at fair market value.

That said, we are listening to the needs expressed by the citizens of Montréal-Est and are studying the issue.

140. Why not build a tunnel between Labelle and Berri-UQAM stations to improve interconnection?

The distance between the future REM de l'Est Labelle station and Berri-UQAM station is approximately 200 metres, or a 3-minute walk.



141. Would the REM de l'Est technically be able to run above the lanes of the Highway 25 overpass? Would it be feasible and desirable to put a park-and-ride lot north of the Highway 25 overpass, if there were an REM station behind the senior housing towers on Léger and Gouin?

Our teams have not studied that scenario, since the guidelines the Government of Québec provided consisted of serving the northeastern portion of the Island of Montréal, up to Cégep Marie-Victorin.

142. The route between Saint-Clément and Assomption passes through the Assomption Sud – Longue-Pointe sector. There is a round table working on the framework for site development. Will you be participating in the meetings?

We are in contact with the Assomption-Sud – Longue-Pointe sector round table and are setting up a meeting with them.

CDPQ Infra has been consulting with partners and stakeholders since January 2021. We have met with more than 60 organizations and citizen groups since the REM de l'Est project was announced to the public.

More recently, within the framework of a major information and consultation process, the public was invited to participate in three virtual information sessions, two thematic webinars and six public consultation sessions, held from May 10 to June 16, 2021 in each project area. An online consultation platform is also available at all times for citizens and stakeholders. Furthermore, our team also continues to meet with stakeholders and citizen groups, including responding positively to invitations we receive.

A report on all the recommendations submitted by members of the public will be made available on the CDPQ Infra website at the end of summer 2021 and a review of the ideas retained will be presented by the end of 2021.

Following the directive issued by the *Ministère de l'Environnement et de la Lutte contre les changements climatiques* (MELCC), the REM de l'Est project will be submitted to the *Bureau d'audiences publiques sur l'environnement* (BAPE) in 2022. During this process, members of the public will be able to stay informed and share their opinion on the project.

143. What was CDPQ Infra's process for determining the best route?

We conducted an exhaustive analysis to identify the best mobility solution to meet the objectives that the government set, i.e. to connect downtown Montreal to the eastern tip of Montréal Island and CÉGEP Marie-Victorin with a structured transit network.

In concrete terms, to identify the reference project for the REM de l'Est based on the mobility needs of the territory, CDPQ Infra proceeded systematically by first diagnosing the territory and then analyzing the mobility of the territory, which takes into account the studies conducted by project partners, most specifically the Autorité régionale de transport métropolitain and the Ministère des Transports du Québec. Once they've identified the preliminary scenarios, our team conducts a multi-criteria analysis of the scenarios, taking into account attractiveness, social acceptability, environmental impact, network impact, financial balance and technical capacity. This analysis allows us to select the corridors with the most potential. We then analyze the challenge and identify the best mode and type of route. All of these steps result in a proposed reference project that fulfils all the criteria analyzed as much as



possible, and enables us to adequately respond to the study mandate entrusted to us by the Government of Québec.

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

144. Would it be possible to add a station in the industrial sector of Pointe-de-l'Île?

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

The REM de l'Est project is still in the planning phase. Since December 2020 and until 2022, we will continue detailed studies, ongoing discussions with the various stakeholders in the sector, as well as public consultations that will allow us to optimize and improve the project.

We have begun our public information and consultation process which will also allow us to meet with the population.

The original REM is a good example: if you compare the details of the project that was announced in 2016 and the project now under construction, many adjustments were made to meet the demands of the communities (adding stations, moving equipment, extending a tunnel, adding accesses, etc.).

145. Why wasn't the option of going underground on Notre-Dame Street between St-Clement Street in the east and St-Timothée Street in the west (which would emerge just before Labelle Station and continue at ground level) studied?

The elevated route along Notre-Dame Street East will provide more easily accessible stations for users and will not affect the bike path or the greenway. This option also allows the City of Montréal to carry out its project to upgrade the street to an urban boulevard.

We did investigate the scenario of an underground route starting east of the Canadian Pacific railroad tracks. This option was set aside due to the increased technical risks associated with it and the resulting 500-metre transition zone necessary, which would prevent north-south traffic on Notre-Dame Street. Details of the risks associated with this scenario can be found on page 20 of this presentation available on our website.

146. Why run above Notre-Dame, when 50% of the station's drawing radius would be located "in the water"?

The Notre-Dame route west of Highway 25 is a strategic sector that has been targeted for redevelopment for many years. The elevated route along Notre-Dame Street East will provide more easily accessible stations for users and will not affect the bike path or the greenway. This option also allows the City of Montréal to carry out its project to upgrade the street to an urban boulevard.

Moreover, the Notre-Dame Street route connects the industrial-port zone, the strategic zone of Assomption-Sud – Longue-Pointe, as well as the high-priority sector of Des Faubourgs.



147. How will the Saint-Léonard Station impact the Centre Da Vinci?

It will not impact the Centre Da Vinci.

148. With regard to the northeast branch, how does CDPQ Infra justify the choice of the Lacordaire axis, rather than L'Assomption Boulevard or Langelier Boulevard, to serve the population of this territory in terms of ridership, residential density and institutional, commercial and industrial hubs?

Our goal is to increase public transit use by servicing new corridors and offering a solution that complements the existing network.

Our analyses have indicated significant ridership levels for a new network that would run on Papineau, but because of its proximity to the east branch of the orange line, more than half of the clientele would be from the orange line and would therefore not attract many new public transit users.

Furthermore, Papineau Street is not close to Highway 25; being in close proximity to that major highway was one of the government's guidelines when CDPQ Infra was awarded the mandate.

Lastly, this axis, though densely populated, services very few strategic hubs that generate travel.

Therefore, the reference project plans to use L'Assomption Boulevard to the south to connect to Lacordaire Boulevard just past the Maisonneuve-Rosemont Hospital. Our studies have shown that this route has high levels of potential ridership – higher than the Langelier Boulevard route – and services more major travel-generating hubs. It will also provide a new structuring transit option to neighbourhoods that are currently under-serviced by public transit.

149. Why is the Cartier station located directly in front of our residential property, rather than in front of a vacant parking lot?

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

The REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

150. Will there be a REM de l'Est station in Montréal-Est?

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

There are no stations planned for the City of Montréal-Est at this time. The Contrecoeur and Saint-Jean-Baptiste stations are located on either side of Montréal-Est.

However, an elevated network like REM de l'Est allows for stations to be added in the future, as needs develop.



151. What inputs from the City of Montréal and the Government of Québec were considered in the reference project?

In May 2019, the Government of Québec mandated us to develop a structuring public transit solution for eastern and northeastern Montréal. As soon as the mandate was granted, an operational committee was set up with the Autorité régionale de transport métropolitain, the Ministère des Transports and the Société québécoise des Infrastructures.

Several inputs from the City of Montréal were considered, including urban plans, plans for urban development in specific areas, the sustainable mobility plan and the economic development plan. With respect to inputs from the government, we received guidelines and collected all the data and analyses produced either by the Ministère des Transports du Québec or the Autorité régionale de transport métropolitain, in order to diagnose the territory (origin-destination surveys, traffic flow forecast data, OPUS card usage data for the territory in question, etc.). All data and solution options were analyzed and then studied together with our partners.

Once the work was completed, our teams met with the City of Montréal to share the results of the studies and analyses.

Since the public announcement of the project, mobility partners and local authorities have provided support to ensure integrated development of the project.

Since January, we have met with more than 60 businesses, organizations and citizens' groups, and all comments and opinions will be taken into account in optimizing and improving the project.

The information sessions were part of an information and consultation process intended to optimize and improve the project in light of citizens' recommendations.

152. I would like to know the "drawing radius" of pedestrians to the stations. Also, what is your estimated ratio of local users (pedestrians) to users who will use other means to get to the stations?

Our estimated station drawing radius is one kilometre around each station. This is the perimeter generally used for high-capacity, high-frequency structuring networks.

As for the ratio of pedestrians or active mode users to non-walkers, data varies significantly from station to station, depending on where the station is located on the route. An average ratio really wouldn't be representative of anything. There is a very high proportion of pedestrians in densely urban areas such as the Honoré Beaugrand Station or downtown stations. In the more remote areas, the ratios are reversed to be predominantly users who transfer from bus, train or car. In some cases, more than 80% of the traffic may be pedestrians, while in other cases more than 80% may be bus users.

Our ridership studies have not yet been finalized. They will be published in late 2021, along with the environmental impact studies.

We expect that by 2044, REM de l'Est will carry 133,000 users per day. With the significant time savings generated when using the REM de l'Est (between 25% and 70% depending on the sector), there will be a modal shift from solo driving to public transit. Our studies estimate that REM de l'Est will save 165 million vehicle-km (by 2044) and thus reduce congestion on roads like Sherbrooke and Notre-Dame streets.



153. What have you done practically to assess how citizens want to move?

Our studies use data from origin-destination surveys, forecasted traffic flow data from the Ministère des Transports du Québec, and OPUS map usage data for the area in question. On the other hand, good knowledge of trip generators (destinations) allows us to take into account desired travel in our analyses. This information allows us to establish the general outline of citizen demand and gives us a comprehensive portrait of transit needs in each area. By simulating new networks across the territory, we are able to assess which demand-based networks would best meet expectations since they would be more widely used.

154. Some believe that the REM de l'Est route has been primarily defined by financial considerations, at the expense of public interest. How do you respond to that?

We conducted an exhaustive analysis to identify the best mobility solution to meet the objectives that the government set, i.e. to connect downtown Montreal to the eastern tip of the Island of Montréal and CÉGEP Marie-Victorin with a structured public transit network.

The reference project was developed with the idea of proposing an attractive transit solution that responds to mobility needs and encourages a modal shift from solo driving to public transit. The following principles were taken into consideration to promote public transit usage:

- Connection to downtown to maximize ridership and service use
- Frequency and reliability: emphasize the dedicated corridor and agile technology
- Universal access: sufficient space for service accessible to everyone
- Fluidity and interconnectivity: enabling quick and easy access
- Direct access: limit overloading

We surveyed the east end of Montréal to determine the best corridors in terms of structuring impact on mobility, ridership, new users, interconnection with existing networks and travel generators (businesses, institutions, hospitals, etc.).

The proposed reference project fulfils the criteria analyzed to the highest extent possible, and enables us to adequately respond to the study mandate entrusted to us by the Government of Québec. In practical terms, the REM de l'Est will result in significant time savings for of Montréal's eastern and northeastern populations, in addition to serving strategic areas in the east, including many hospitals, knowledge and employment hubs.

155. What stations will be in Pointe-aux-Trembles?

There will be four stations in the Rivière-des-Prairies-Pointe-aux-Trembles borough: Saint-Jean-Baptiste, Tricentenaire, Rousselière and Pointe-aux-Trembles. You can view the details of these stations at this link.

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.



156. Was route development coordinated with the vision for territory development? Will the route still meet the needs in 20-30 years?

We conducted an exhaustive analysis to identify the best mobility solution to meet the objectives that the government set, i.e. to connect downtown Montreal to the eastern tip of the Island of Montréal and CÉGEP Marie-Victorin with a structured public transit network.

Several inputs from the City of Montréal were considered, including urban plans, specific urban plans for developing areas, the sustainable mobility plan and the economic development plan, to ensure that the project is consistent with the City of Montréal's vision for development.

Our studies also used use data from origin-destination surveys, forecasted traffic flow data from the Ministère des Transports du Québec, and OPUS map usage data for the area in question. This information allows us to establish the general outline of citizen demand and gives us a comprehensive portrait of transit needs in each area. To ensure we consider future needs, our studies evaluate and take into account:

- changes in traffic patterns;
- regional demographic evolution;
- employment rates in the greater Montréal area;
- growth in Québec's GDP;
- forecasts by the Institut de la Statistique du Québec and the Conference Board of Canada.

We also surveyed the east end of Montréal to determine the best corridors in terms of structuring impact on mobility, ridership, new users, interconnection with existing networks and travel generators (businesses, institutions, hospitals, etc.).

Our primary objective is to develop a new public transit network that will more than double the size of the metro system on the east end of Montréal and meet the mobility needs of citizens when the system opens in 2029, and for decades to come.

157. You talk about moving the planned Faubourg Contrecœur station closer to Honoré-Beaugrand, but there is currently no land vacant for such...so this proposal would inevitably require expropriations in an area that is densely populated. Would it be possible, in this case, to move the station to the edge of Montréal-Est?

Various alternative sites are being analyzed in conjunction with the City of Montréal. Our goal remains to have the least possible impact on neighbouring properties; alternative sites are analyzed with that in mind. Station locations are always determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

The REM de l'Est project is still in the detailed planning phase. Over the next two years, we will continue detailed studies, ongoing discussions with the various stakeholders in the sector and public consultations that will allow us to optimize and improve the project.

We have begun our public information and consultation process which will also allow us to meet with the population. A report on all the recommendations submitted by members of the public will be made available on the CDPQ Infra website at the end of summer 2021 and a review of the ideas retained will be presented by the end of 2021.



158. Where exactly on Sherbrooke Street will the REM station be located?

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land. The locations of the stations on Sherbrooke Street are detailed in these two sector sheets:

- Mercier-Hochelaga-Maisonneuve
- Rivière-des-Pairies-Pointe-aux-Trembles and Ville de Montréal-Est

159. Why not extend the green metro line to Honoré-Beaugrand?

The purpose of the REM de l'Est is to meet ridership demand in the coming decades. The green line cannot absorb any more users, since it is almost saturated right now. Furthermore, the Berri-UQAM transfer station is currently overloaded.

By creating new corridors in the east and northeast with a new connection to downtown, we are increasing overall public transit capacity. The REM de l'Est will also offer new destinations.

Furthermore, there will be a transfer station with the Honoré-Beaugrand metro station.

REM de l'Est will offer several connections to existing and planned networks. The <u>route map</u> and various <u>project fact sheets</u> outline which ones.

To be more specific, REM de l'Est will connect with all metropolitan public transit networks, thereby maximizing intermodality and the fluidity of travel. It will offer connections to:

- the metro green line (Honoré-Beaugrand and L'Assomption stations)
- the metro blue line (future Lacordaire station)
- the metro orange line (Bonaventure station, via Gare Centrale)
- the Mascouche commuter train line (Pointe-aux-Trembles station)
- Pie-IX BRT (future Pie-IX/Notre-Dame station)
- the REM (Gare Centrale)
- the STM, STL, RTL and exo bus networks.

This intermodality will also free up capacity on the Montréal metro, particularly the eastern branch of the orange line, thanks to new north-south service on the Island of Montréal.

The STM and ARTM are in the process of refining their analyses of how the REM de l'Est will impact the metro network and Mascouche commuter train line.

160. Would it be possible in the future to run trains between Marie-Victorin and Pointe-Aux-Trembles? If so, would it be necessary to build a triangle junction or would it be possible to turn the trains around at the potential Viauville Station during normal operation?

It is not possible to directly link Pointe-aux-Trembles to CÉGEP Marie-Victorin. It would, in fact, require a triangular junction. The junction currently planned is a fork junction with a grade separation to allow proper management of both branches. The simplest way to make the trip would be to exit at the first station on the main line and take the next train to the CEGEP. The time saved is very significant.



161. Why can't the REM run to Mercier-Est instead of the Souligny express lane south ramp, at a significantly lower level than the current roadway? Over the CN tracks?

In the Mercier–Hochelaga-Maisonneuve sector, the REM de l'Est will be elevated on the north side of Notre-Dame Street, near L'Assomption, on Souligny and in the centre of Sherbrooke Street.

The Sherbrooke Street route allows us to provide service for neighbourhoods and industrial sectors that have been targeted for redevelopment and requalification plans. In addition, the Sherbrooke Street route allows us to offer intermodal transfer at Honoré-Beaugrand Station; it also provides all the necessary conditions for light rail.

Following meetings with municipal officials and local stakeholders, we have indeed decided to study an alternative route through the CN-owned railroad right-of-way along Souligny Avenue. These analyses are still in progress.

162. Why is the Cartier station located directly in front of our residential property, rather than in front of a vacant parking lot?

Station locations were determined based on the areas to be serviced, possible connections to other public transit networks, the potential for urban redevelopment and available land.

The REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

163. Why not be even more ambitious and allow the REM de l'Est to have a regional impact...shouldn't we push the project all the way to Repentigny (along the 138 and/or the 40)?

In December 2020, we announced the REM de l'Est project, but it is still in the planning phase. It is a reference project that may be improved within the framework of the ongoing detailed studies, discussions with the various stakeholders in the sector and the public consultations.

However, we can already confirm that the benefits of the reference project extend beyond the territory of the City of Montréal and will significantly reduce travel time for users in the northern suburbs, particularly in the Repentigny and Mascouche sectors.

Regarding the northern suburbs in particular, we are also currently analyzing a project for Laval, according to the mandate from the Government of Québec. The conclusions of these analyses will be presented to the relevant authorities soon.

164. Why is service to the Galeries d'Anjou not included in the project?

We believe that the REM de l'Est project and the extension of the blue line of the Montréal metro are complementary and important projects that will increase the fluidity and efficiency of travel for Montréalers in the east, and will meet an important and expected need. We have had discussions with the relevant authorities and STM in order to properly align our two projects.



Environment

165. What environmental impact will the REM de l'Est have, especially in terms of its construction?

Once the REM de l'Est is commissioned, it will save 35,000 tons of GHG emissions each year.

Our studies estimate that the REM de l'Est will save 165 million vehicle-km (by 2044) and thus reduce congestion in areas such as Sherbrooke and Notre-Dame streets.

The construction phase of the REM de l'Est project will produce GHG emissions. A GHG offset plan will be implemented to ensure the project is carbon neutral.

166. Will you plant vegetation around REM de l'Est facilities?

At this stage of the project, it is too early to answer that question. The REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

167. How many cars will be taken off the road with this new network? What will the actual impact on traffic congestion be?

REM de l'Est will transport 133,000 users per day (by 2044).

With the significant time savings generated when using the REM de l'Est (between 25% and 70% depending on the sector), there will be a modal shift from solo driving to public transit.

Therefore our studies estimate that the REM de l'Est will save 165 million vehicle-km (by 2044) and thus reduce congestion in areas such as Sherbrooke and Notre-Dame streets.

That represents 35,000 tonnes of GHGs saved by the new REM de l'Est.

168. How many tons of GHGs will be saved once the network is commissioned?

Once the REM de l'Est is commissioned, it will save 35,000 tons of GHG emissions each year.

Therefore our studies estimate that the REM de l'Est will save 165 million vehicle-km (by 2044) and thus reduce congestion in areas such as Sherbrooke and Notre-Dame streets.

The construction phase of the REM de l'Est project will produce GHG emissions. A GHG offset plan will be implemented to ensure the project is carbon neutral.

169. Are CDPQ Infra's GHG reduction figures relative or absolute?

GHG emissions prevented through a modal shift represent relative GHG emissions, as they are calculated by finding the difference between the situation resulting from the project compared to a baseline scenario without the project in place. The figures presented to date are based on an evaluation of this basis for two time frames: 2034 and 2044. A detailed GHG analysis will be conducted as part of the Environmental Impact Study.



170. How many trees will be cut down to build the network?

All our actions are based on the principles of preventing, minimizing and compensating.

If vegetation such as shrubs or trees must be cut down to build the network, a significant compensation plan will be put in place, in conjunction with the municipalities.

171. What impact will the project have on LaDauversière Park in Saint-Léonard?

Our goal is to limit the impact on the park's green spaces and activities. Close coordination is underway with the borough to this effect. Currently, an emergency evacuation exit is planned in the park next to the school.

172. In recent years, the problem of heat islands in the downtown area has often been raised. Won't cutting down all the trees in the René-Lévesque median foster growth of these heat islands?

The REM de l'Est project design includes a significant landscaping component to reduce the impact of heat islands around the stations. As for the elevated structure, engineering is still in progress to determine the exact scenario. Once the route has been finalized, a compensation plan will be developed in collaboration with the City to offset the loss of trees in the medians.

173. Are there any environmental psychology experts on the committee to study the psychological impact that the REM will have on local residents, to better understand their fears and to ensure greater support?

A broad public consultation process was been initiated by CDPQ Infra in May 2021. Citizens in each of the project's geographic zones have been encouraged to express their concerns and make suggestions for improvement in order to enhance the REM de l'Est project. Publication of the impact study by late 2021, together with the BAPE (Bureau d'audiences publiques sur l'environnement) process in 2022, will also allow citizens to be informed and have their questions answered.



Financial model

174. What is the financing package for the REM de l'Est and will it be made public?

The reference financial framework for this project is currently estimated at approximately \$10 billion. This framework is based on preliminary studies that allowed CDPQ Infra to define the project and make recommendations.

REM de l'Est will be in the detailed planning phase through the end of 2022; during that time, detailed studies will be carried out in which the project's structuring elements will be defined in detail so that a discussion can then be initiated regarding the project's financial structure and costing framework.

It will include crucial steps for establishing a robust cost estimate:

- Project design progress
- Acquisition and analysis of information relating to the various sites (soil studies, public utilities, municipal services, etc.)
- Public consultations with the project's various strategic stakeholders, including the Government of Québec, the City of Montréal and ARTM
- Conducting the environmental impact study and public hearings within the context of the BAPE and launching the request for qualifications for suppliers to gauge market conditions
- 175. Certain elevated sections of the REM will be longer and more difficult to build due to multiple existing infrastructures that will need to be relocated and the proximity of homes or sensitive locations that must be disturbed as little as possible. Others will be easier to build and should cost less. What is the cost per km for the various sections of the elevated REM?

At this stage of the project, the \$10 billion price tag is a global estimate, and will be refined before the BAPE public hearings scheduled for 2022.

176. Are there any provisions to compensate citizens for lost value in their homes?

An analysis of how building the REM de l'Est will impact property values of neighbouring properties will be conducted. This analysis will allow us to estimate whether there will be any changes in property values along the route. With the REM currently under construction, studies have indicated that the properties along the route have actually increased in value.



177. What is the cost/kilometre and cost/passenger for the various possible REM de l'Est routes?

REM de l'Est will be in the detailed planning phase through the end of 2022; during that time, detailed studies will be carried out in which the project's structuring elements will be defined in detail so that a discussion can then be initiated regarding the project's financial structure and costing framework.

178. Why is CPDQ Infra, and not ARTM, responsible for analyzing and planning this major project?

The ARTM identified the need to implement a structuring mode of public transit linking the northeast suburbs, southeast Montréal and downtown in the Notre-Dame Street axis in its *Plan des initiatives de développement du transport collectif* (PIDTC) filed in May 2018.

In May 2019, the Government of Québec mandated us to develop a structuring public transit solution for eastern and northeastern Montréal. Since then, an operational committee was set up with representatives from the Ministère des Transports, the Société québécoise d'infrastructure (SQI) and the ARTM, and meets twice a month and to ensure that the parties involved work together.

Then, the REM de l'Est was announced last December, following 18 months of in-depth studies conducted by CDPQ Infra and based on data from the Autorité régionale de transport métropolitain (ARTM) and collaboration from the Ministère du Transport du Québec (MTQ).

Since then, CDPQ Infra has held more than fifty meetings with numerous stakeholders in the greater Montréal area.

179. CDPQ has a purely monetary function. It must make Québecers' money work for them. Doesn't that contradict the purpose of public transit? That of being an affordable and ecological alternative to travelling by car?

CDPQ Infra is a wholly owned subsidiary of the Caisse de dépôt et place du Québec. Its mandate is to act as principal contractor for major public infrastructure projects by assuming responsibility for all phases of the project: planning, financing, execution and operation.

CDPQ Infra's model is based on a virtuous cycle in which CDPQ's investments make it possible to build much-needed public transit infrastructure that meets Québecers' mobility needs. Every time a person takes the REM, they will be contributing to their retirement and reducing their carbon footprint.

The REM's costs per passenger-km are actually comparable to, or even less than, the cost of other public transit operators, such as exo or the STM.



180. Will you require local content and jobs in your request for proposals? Will you give priority to Canadian and Québec-based companies?

Our desire with the REM de l'Est project is to maximize local and economic benefits for Québec; we anticipate benefits of approximately \$6.3 billion for the GDP.

In terms of local content, the final results of both completed RFPs were conclusive:

- Local companies were able to differentiate themselves advantageously in a highly competitive process.
- In all, more than 65% local content from Québec will be required for both consortiums' activities.
- The cost of the rail cars and automation systems represents approximately 10% of the total value of the cost to complete the project and is equivalent to the present value of the operating and maintenance costs over 20 years.
- Automation and signalling systems represent approximately 5% of the value of the project's costs.
- Approximately 34,000 jobs are being created in Québec during the REM construction phase, and 1000 permanent jobs will be created thereafter.
- We must also consider all the local expertise that such projects entail; establishing two new REM maintenance centres will ultimately create 250 new permanent jobs here in Québec.
 - Furthermore, with the arrival of a new Alstom global centre of expertise on control systems for urban mobility here in Montréal, 100 new, high-level and long-term jobs will be created.

181. Will you allocate a budget for integrating the REM into the landscape or will this cost be borne by project partners?

The scope of the REM de l'Est project stipulates that CDPQ Infra will be responsible for station and structure construction, as well as development in the immediate vicinity of these infrastructures. Close collaboration is in place with the City of Montréal and the Government of Québec, most specifically within the framework of the multidisciplinary committee of experts on architecture and urban integration, in order to develop designs for urban planning around the network. Financing for these improvements is the subject of discussion between the City of Montréal and the Government of Québec.



182. What is your current budget overrun?

The reference financial framework for this project is currently estimated at approximately \$10 billion. This framework is based on preliminary studies that allowed CDPQ Infra to define the project and make recommendations.

REM de l'Est will be in the detailed planning phase through the end of 2022; during that time, detailed studies will be carried out so that a discussion can then be initiated regarding the project's financial structure and costing framework.

It will include crucial steps for establishing a robust cost estimate:

- Project design progress
- Acquisition and analysis of information relating to the various sites (soil studies, public utilities, municipal services, etc.)
- Public consultations with the project's various strategic stakeholders, including the Government of Québec, the City of Montréal and ARTM
- Conducting the environmental impact study and public hearings within the context of the BAPE and launching the request for qualifications for suppliers to gauge market conditions

183. In its last budget, the Government of Québec budgeted an additional \$2.2 billion for the original REM and REM de l'Est projects. Can you tell us for which section this money has been set aside?

Since that question pertains to the Government of Québec's budget, please direct it to them. These amounts are not dedicated to the REM or the REM de l'Est.

The reference financial framework for the REM de l'Est is currently estimated at approximately \$10 billion. This framework is based on preliminary studies that allowed CDPQ Infra to define the project and make recommendations.

REM de l'Est will be in the detailed planning phase through the end of 2022; during that time, detailed studies will be carried out so that a discussion can then be initiated regarding the project's financial structure and costing framework.

It will include crucial steps for establishing a robust cost estimate:

- Project design progress
- Acquisition and analysis of information relating to the various sites (soil studies, public utilities, municipal services, etc.)
- Public consultations with the project's various strategic stakeholders, including the Government of Québec, the City of Montréal and the ARTM
- Conducting the environmental impact study and public hearings within the context of the BAPE and launching the request for qualifications for suppliers to gauge market conditions



184. How will operating costs affect the ARTM budget?

At this stage of the project, it is too early to answer that question. The REM de l'Est is in the detailed project planning phase, which will continue through the end of 2022. This phase includes technical feasibility and design studies that will be used to determine such aspects.

The ARTM continues its studies and all of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

185. Could CDPQ eventually sell part of its interest – 10%, 20% or more – to another fund or investor?

CDPQ does not intend to sell the REM infrastructure, as this type of infrastructure generates stable, long-term returns, which is precisely CDPQ's objective. The whole appeal of such a transit investment is tied to this concept of a long-term commitment.

186. Will the project's technical choices be the subject of a lifecycle analysis?

At this time, there are no plans to conduct a lifecycle analysis. However, CDPQ Infra's objective is to retain ownership of this asset over the very long term, so it is in our best interest to optimize the overall cost of acquisition and take very long-term costs into account.



Technology

187. What material will the wheels on REM de l'Est train cars be made of?

As with the original REM, the wheels will be made of steel to allow the vehicles to operate in Montréal's winter conditions. While vehicles with pneumatic tires do have certain advantages, particularly in terms of noise and vibrations, they do not provide sufficient grip in snowy or icy conditions. Rubber-tired vehicles are used exclusively in underground infrastructures or in countries with a moderate or hot climate.

188. How will you connect the two lines at Robert Bourassa to transfer the rolling stock?

The REM de l'Est will be connected to the original REM via pedestrian tunnel linking the Robert-Bourassa terminal station to Gare Centrale.

Cars from the original REM line will not be able to transfer to the REM de l'Est line, since it is impossible to make such a connection in the Mont-Royal Tunnel where the two networks will meet.

189. Has consideration been given to using the same tracks in the downtown area as the current metro?

Steel continuous welded rail (CWR) is planned to be used throughout the REM de l'Est network, just like what is used with the original REM. These continuous welded rails optimize passenger comfort and minimize noise impact. Acoustic studies are underway to analyze whether or not additional noise mitigation solutions in sensitive areas such as downtown are needed. The current metro tracks are designed for rubber-tired subways. The REM de l'Est light rail system is an "iron-on-iron" metro. The two technologies are not compatible.

190. If metro technology already exists in the territory, why add a different technology with the REM light rail, rather than simply continuing the metro?

Metro-type technology like the STM's is intended for a heavy pneumatic metro with seven cars per trainset. Comparisons of the various modes of transit (heavy metro, light metro, tramway, tram-train) have shown that light metro is the most appropriate to meet ridership needs. Light rail is distinguished by shorter trainsets (four cars per trainset on the original REM and two cars per trainset on REM de l'Est), a steel rail-wheel interface allowing for elevated operation, as well as narrower cars that are easier to integrate into an urban environment.



191. Why was tramway technology not selected?

It's important to have the right mode in the right place. In the greater Montréal area, the light rail transit solution offers fast, frequent and reliable service. Our studies have shown that it is the only system that offers the capacity to meet current and future demand.

Since tramways do not operate in dedicated rights-of-way and have to share the right-of-way with cars, pedestrians and cyclists, this slows down their commercial speed and would not be able to handle the volume of ridership in the greater Montréal area.

In fact, in the central segment, the light rail system will be able to accommodate up to 12,000 passengers per hour, while the tramway and tram-train would only accommodate 5100. This capacity is divided by two on each branch that feeds the central segment.

Departure frequencies could be as high as one train every 90 seconds with light rail technology, without any risk of disruption from traffic. In contrast, at best, a tramway or tram-train can only depart every three-and-a-half minutes in the central segment, and therefore every seven minutes on the branches.

In the same way, the light rail system runs at high speed up to 45 km/h, whereas the tramway is limited to a speed between 17 and 25 km/h, and the tram-train speed varies according to type of route. This greatly affects travel times, with tramway taking 45 minutes to get from Pointe-aux-Trembles to downtown.

A comparison of the various modes studied is available on our website through this link.

192. Will you require your suppliers to use Québec green technologies to treat contaminated soil?

We will always require future consortiums to comply with environmental regulations and laws. This principle is non-negotiable.

Bill 66 was passed with specific provisions for dealing with contaminated soils, and we will follow the legislation.

193. Why not use a monorail?

Because of its specific running gear, there are few, if any, monorail systems currently in operation in areas were winter conditions are similar to those in Montréal. Furthermore, the complexity of the monorail switches would make connection between the common segment downtown and the two branches in the east and north of Montréal very complicated, and would imply very long switching times. These switching times would increase the time between vehicles, thereby reducing the level of service the REM de l'Est could provide.

Last but not least, with a monorail, passenger evacuation in the event of a breakdown, accident or fire, would be very difficult.



194. Why not use pneumatic wheels?

As with the original REM, the wheels will be made of steel to allow the vehicles to operate in Montréal's winter conditions. While vehicles with pneumatic tires do have certain advantages, particularly in terms of noise and vibrations, they do not provide sufficient grip in snowy or icy conditions. Furthermore, rubber-tired vehicles require a third rail for power return, which makes them very unreliable in snow and ice. For that reason, rubber-tired vehicles are used exclusively in underground infrastructures or in countries with a moderate or hot climate.

195. Will REM de l'Est cars differ from those of the REM under construction?

The REM de l'Est technology will be the same as the REM under construction, i.e. a light rail system. Rolling stock (train cars) specifications will therefore be similar to that of the REM. However, a rigorous and specific request for proposals will be launched for the REM de l'Est in order to select the best product in terms of quality-price ratio.

196. Does light rail allow for more cars to be added than the two already planned?Wouldn't it be smart to plan longer stations and trains for the future?

The size of the trainsets was studied according to the expected ridership volumes in the short-, medium- and long-term. According to our studies, two-car trains are sufficient to meet the demand, knowing also that we will have the option of adding a few trainsets by reducing departure intervals. Should demand increase significantly in the future, it would be possible to add stations in the elevated sections. That would be a new project.

197. REM de l'Est trains appear to contain only two cars. I am concerned about this capacity, since it seems very low to me. Will it be possible to ultimately run four-car trains on the REM de l'Est?

The size of the trainsets was studied according to the expected ridership volumes in the short-, medium- and long-term. According to our studies, two-car trains are sufficient to meet the demand, knowing also that we will have the option of adding a few trainsets by reducing departure intervals. Should demand increase significantly in the future, it would be possible to add stations in the elevated sections. That would be a new project.

198. What criteria did CDPQ use in selecting a light rail system?

It's important to have the right mode in the right place. In the greater Montréal area, the light rail solution offers fast, frequent and reliable service. Our studies have shown that this is the technology that will enable us to meet current and future demand.

We conducted an exhaustive analysis to identify the best mobility solution to meet the objectives that the government set, i.e. to connect downtown Montreal to the eastern tip of the Island of Montréal and CÉGEP Marie-Victorin with a structured transit network.

Our experts assessed the different modes of transit (tramway, tram-train, light rail) and analyzed the different methods to integrate that solution (surface, elevated, underground) for the entire project, most specifically in the downtown area.



Since tramways do not operate in dedicated rights-of-way and have to share the right-of-way with cars, pedestrians and cyclists, this slows down their commercial speed, making it impossible to handle the volume of ridership in the sectors to be serviced.

In fact, in the central segment, the light rail system will be able to accommodate up to 12,000 passengers per hour, while the tramway and tram-train would only accommodate 5100. This capacity is divided by two on each branch that feeds the central segment.

Departure frequencies could be as high as one train every 90 seconds with light rail technology, without any risk of disruption from traffic. In contrast, at best, a tramway or tram-train can only depart every three-and-a-half minutes in the central segment, and therefore every seven minutes on the branches.

In the same way, the light rail system runs at high speed up to 45 km/h, whereas the tramway is limited to a speed between 17 and 25 km/h, and the tram-train speed varies according to type of route. This greatly affects travel times, with tramway taking 45 minutes to get from Pointe-aux-Trembles to downtown.

A comparison of the various modes studied is available on our website through this link.

199. What were the motives in choosing to build two separate REMs that do not operate on the same system?

Both REMs are fully automated light rail systems based on the same technological solutions. However, the two networks will be autonomous in order to take into account the specific ridership needs of each line. To that end, the REM de l'Est line will have two cars per train, as opposed to four on the REM line. REM de l'Est will be connected to the original REM via pedestrian tunnel linking the Robert-Bourassa terminal station to Gare Centrale.

200. The needs of Pointe-aux-Trembles citizens are not at all the same as those of Hochelaga-Maisonneuve citizens. How do you justify offering them the same modal solution?

As with any structural transportation project, REM de l'Est runs through several neighbourhoods and boroughs with very different characteristics. CDPQ Infra has analyzed those varying needs, and the proposed REM de l'Est is the response that best meets the mobility needs of each sector through which it runs.

In order to meet the needs of the entire territory, CDPQ Infra conducts comprehensive studies. Our studies use data from origin-destination surveys, forecasted traffic flow data from the Ministère des Transports du Québec, and OPUS map usage data for the area in question. This information allows us to establish the general outline of citizen demand and gives us a comprehensive portrait of transit needs in that area. To ensure we consider future needs, our studies evaluate and take into account:

- changes in traffic patterns;
- regional demographic evolution;
- employment rates in the greater Montréal area;
- growth in Québec's GDP;
- forecasts by the Institut de la Statistique du Québec and the Conference Board of Canada.



These studies have allowed us to propose the REM de l'Est reference project, which takes into account the travel needs of users in the seven cities and boroughs crossed.

201. Isn't the future of public transit more about small electric shuttles?

It's important to have the right mode in the right place. The projected REM de l'Est ridership is 133,000 passengers per day by the year 2044, which justifies the use of a light rail mode to meet users' needs. Smaller electric shuttles could be used for the first and last few miles at some stations. Bus terminal facilities will also be provided at several REM de l'Est stations.

202. Why are the benches in the cars all facing the middle? How many seats will be available in each car?

For cars travelling in both directions, studies show that benches facing the middle are what is most comfortable for users, rather than riding backwards.

All of this information will be made public along with the project's impact study, before the BAPE public hearings scheduled for 2022.

203. Why not use existing Train de l'Est infrastructures?

REM de l'Est is a light rail system, which uses different technology than commuter trains. Furthermore, the Mascouche train line uses a CN-owned rail corridor that also carries freight trains, all on a single track. This operation is incompatible with a light rail system that runs at high frequency, high speed and requires track in both directions. REM de l'Est will allow residents of the Mascouche, Terrebonne and Repentigny sectors to save a significant amount of time with a connection to the Pointe-aux-Trembles station.

The ARTM is in the process of refining its analyses of how the REM de l'Est will impact the metro network and Mascouche commuter train line.



204. Why was monorail with pneumatic suspension not considered in the AECOM-SYSTRA comparative study? Have you analyzed a suspended train system to reduce the size of the structure?

Because of its specific running gear, there are few, if any, monorail systems currently in operation in areas were winter conditions are similar to those in Montréal. Furthermore, the complexity of the monorail switches would make connection between the common segment downtown and the two branches in the east and north of Montréal very complicated, and would imply very long switching times. These switching times would increase the time between vehicles, thereby reducing the level of service the REM de l'Est could provide.

Last but not least, with a monorail, passenger evacuation in the event of a breakdown, accident or fire, would be very difficult.

As with the original REM, the wheels will be made of steel to allow the vehicles to operate in Montréal's winter conditions. While vehicles with pneumatic tires do have certain advantages, particularly in terms of noise and vibrations, they do not provide sufficient grip in snowy or icy conditions. Rubber-tired vehicles are used exclusively in underground infrastructures or in countries with a moderate or hot climate.

205. Will the catenary technology also be used for the REM de l'Est?

Yes, catenary technology is planned to power the electric cars on the REM de l'Est.



Other

206. Why was the commercial agreement removed from the CDPQ Infra website?

The agreement outlines the general framework and principles governing the business model between the Government of Québec and Caisse de dépôt et placement du Québec for the planning, financing, implementation and operation of major public infrastructure projects. Notwithstanding this agreement, the government retains its responsibilities for managing the Québec Infrastructure Plan (QIP), which defines, over a ten-year period, the investment program, the orientations, the priorities as well as the method of executing public infrastructures. A <u>summary</u> is available on our website.

207. What is the expert committee's role?

The expert committee's mandate is to make recommendations to the project office, prior to the design stage, regarding the architectural quality of the network and its urban integration, and to participate in developing the architectural design guidelines that will be imposed on the consortiums within the framework of the request for proposal process. For more information:

https://cdpginfra.com/en/rem-est/committee

208. Will intermodal connections be pedestrian?

Some intermodal connections will be pedestrian and others will be directly integrated and harmonized, depending on what is possible in each location. Our desire is to propose an infrastructure that will be safe in and around all station structures. We will conduct traffic studies around the stations and implement measures to promote safety for all, both during the day and at night. We are also working with the boroughs to carefully consider pedestrian access to the stations, as we want to contribute to the City of Montréal's *Vision Zéro*.

The REM de l'Est will be connected to the city's transit networks, thereby maximizing intermodality and fluidity of travel. It will offer connections to:

- the metro green line (Honoré-Beaugrand and L'Assomption stations)
- the metro blue line (future Lacordaire station)
- the metro orange line (Bonaventure station, via Gare Centrale)
- the Mascouche commuter train line (Pointe-aux-Trembles station)
- the Pie-IX BRT (future Pie-IX/Notre-Dame station)
- the REM (Gare Centrale)
- the STM, STL, RTL and exo bus networks



209. Why wasn't a feeder network chosen for Pointe-Aux-Trembles as it was for Rivière-des-Prairies?

In the sector that links Rivière-des-Prairies – Pointe-aux-Trembles and Montréal-Est, the REM de l'Est route will be elevated down the centre of Sherbrooke Street, from Georges-V Avenue to the Pointe-aux-Trembles Station. Four stations are planned: Saint-Jean-Baptiste, Tricentenaire, Rousselière and Pointe-aux-Trembles. Each station will also be interconnected with local, regional and intercity bus lines, as well as with the Pointe-Aux-Trembles station and Mascouche commuter train line.

210. Which scenario checks the most boxes in terms of the multi-criteria analysis?

The scenario we presented during the information sessions and public consultations is the one that fulfils the criteria analyzed as much as possible, and best meets the expectations and, most importantly, the mobility needs of the citizens of the Montréal-Est.

211. Could we get a list of residential expropriations in the different sectors?

Expropriations have not yet begun. The acquisitions required for the project will be analyzed as soon as the route is set and finalized.

The route is largely on municipal road rights-of-way, and a large majority of the remaining required land is public land. We are working to optimize the route to minimize expropriations.

To avoid speculation, the lots in question have been the subject of land banking, since there is a high potential for overpricing. We are referring here, to private land parcels.

The process of acquiring these lots will be done by expropriation, at fair market value.

Some 60 lots are currently covered by the Order in Council, a number we wish to limit given the scope of this project, which will extend over 32 km and include the construction of 23 new light rail stations.

212. Will the REM de l'Est have an impact on rising housing prices and access to affordable housing?

Housing is a responsibility of the City of Montréal and the Government of Québec, with whom we are working closely to ensure that the project benefits as many people as possible.

Access to rapid and efficient public transportation contributes to improving socio-economic conditions for less affluent populations.

213. Will REM de l'Est have an impact on bicycle paths?

REM de l'Est is designed to complement existing metro, train and bus networks, and close collaboration is taking place with the STM to ensure adequate bus feeder services to the new REM de l'Est stations. All transit partners are working together to provide more transit services, not less.



214. Is it possible to have access to the companies that may build the REM, that will respond to the request for proposals – the bidders, etc.?

The request for proposal process for the REM de l'Est has not yet started. The procurement processes for CDPQ Infra projects follow best practices based on the principles of probity, openness, equity and transparency.

All information related to the request for proposal process will be communicated and distributed to as many people as possible. This process will be launched in 2022.