Chapter 1
Section
1.07

Metrolinx—LRT Construction and Infrastructure Planning

Follow-Up on VFM Section 3.07, *2018 Annual Report*

RECOMMENDATION STATUS OVERVIEW						
		Status of Actions Recommended				
	# of Actions Recommended	Fully Implemented	In the Process of Being Implemented	Little or No Progress	Will Not Be Implemented	No Longer Applicable
Recommendation 1	1		1			
Recommendation 2	2	2				
Recommendation 3	5	2			3	
Recommendation 4	1		1			
Recommendation 5	4		1	3		
Recommendation 6	1		1			
Recommendation 7	2			2		
Recommendation 8	1		1			
Recommendation 9	4		2	1	1	
Recommendation 10	3	2		1		
Recommendation 11	3	3				
Recommendation 12	2	2				
Recommendation 13	1	1				
Recommendation 14	1	1				
Recommendation 15	1	1				
Recommendation 16	2	1	1			
Total	**34**	**15**	**8**	**7**	**4**	**0**
%	**100**	**44**	**24**	**21**	**12**	**0**

Overall Conclusion

According to the information that Metrolinx and Infrastructure Ontario have provided to us, as of October 16, 2020, 44% of actions we recommended in our *2018 Annual Report* have been fully implemented, 24% are in the process of being implemented, 21% have little or no progress, and 12% will not be implemented.

Overall, Metrolinx has done the following:

- developed an action plan to identify and address the growing connectivity needs of the GTHA regional transportation network as a whole, given that previously envisioned connections in the network have been lost due to changes in its light rail transit (LRT) project plan, and updated its prioritization framework to guide the delivery of the projects identified in the *2041 Regional Transportation Plan*;
- introduced a gating process to evaluate evidence and ensure that progressively detailed business cases are prepared and approved for each project prior to it proceeding to the next stage of project development and receiving related investment;
- improved accountability for payments made to consultants, requiring greater detail in defining deliverables, including formal invoice approvals, and monitoring compliance with new policies;
- improved oversight of consultants through direct invoice review, new performance indicators and penalties for poor performance.

However, some significant areas that still require work include:

- During our follow-up, we discovered that Metrolinx and Infrastructure Ontario were again negotiating with the Eglinton Crosstown consortium for a multi-million-dollar settlement, with no substantial changes in Metrolinx's process to document the validity of allegations and evidence to demonstrate the value of the claims made by the consortium and to inform Metrolinx in its negotiations. The fact that this negotiation was occurring was not transparently disclosed to us during our follow-up work but instead came to our attention through other means.
- Metrolinx has been unable to resolve issues regarding the Eglinton Crosstown designs that do not meet project requirements or specifications, or minimize the number of partial design submissions received. Although Metrolinx could have issued non-conformance reports and insisted that the defects be rectified, we noted that Metrolinx had not done this and only issued one design-related non-conformance report since our 2018 audit.
- Metrolinx continued to spend over $51 million on subconsultants through its existing contract with its primary consultant and did not assess if a separate open procurement was warranted.

The status of actions taken on each of our recommendations is described in this report.

Background

Metrolinx is the agency responsible under the *Metrolinx Act, 2006* (Act) for planning an integrated regional transit system for the Greater Toronto and Hamilton Area (GTHA), overseeing transit capital projects, and operating GO Transit trains and buses, the Union Pearson Express and the PRESTO fare payment system.

In November 2008, Metrolinx formally adopted its first Regional Transportation Plan setting the priorities, policies and programs over the next 25 years for a GTHA regional transportation system. Its top transit priorities included five "rapid transit" projects to allow people to travel quickly in special transit vehicles that have "exclusive right of way" (other vehicles are not allowed on the lanes). The high capacity of these special vehicles and the exclusive right of way make them faster than traditional buses and streetcars, which are smaller and travel on lanes shared with other vehicles.

Our 2018 audit looked at Metrolinx's regional planning responsibilities and work, and its oversight of capital projects designated as "light rail transit" (LRT): Eglinton Crosstown, Finch West, Sheppard East, Scarborough Rapid Transit, Hamilton and Hurontario. We focused on the Eglinton Crosstown LRT, as this was the only project under construction.

Among our specific findings:

Eglinton Crosstown

- The consortium building the Eglinton Crosstown LRT fell significantly behind schedule in 2017. Under the alternative financing and procurement (AFP) contract for this project, Metrolinx had limited remedies to hold the consortium responsible for delays so long as the consortium certified it would still finish the project on time even though Metrolinx knew in 2017 that the consortium was experiencing problems and would likely not achieve the scheduled completion date. Then in February 2018, the consortium filed a claim against Metrolinx for compensation and a deadline extension. Metrolinx negotiated and settled with the consortium, to again hold it to the original contracted completion date of September 2021 by paying the consortium $237 million. Of the $237 million, $100 million was classified as incentive and acceleration compensation subject to clawback if the AFP consortium does not achieve substantial completion on or before September 29, 2021. This settlement was based on negotiations by the CEO of Metrolinx and the CEO of Infrastructure Ontario with the consortium. We found no detailed documentation to support the consortium's initial claims or settlement. Negotiations were based on theoretical risks.

2009–2018 Sunk and Additional Costs

- Metrolinx incurred about $436 million in sunk and additional costs between 2009 and 2018—$125 million for cancelling and delaying two projects, $286 million for costs over and above contract values, and $25 million to manage issues with the company contracted to supply vehicles for the Eglinton Crosstown.

Consulting Work by One Firm

- Metrolinx contracted with one consulting firm under three separate contracts totalling $272 million to provide project management services between 2010 and 2022 for all LRT projects and certain other projects. Before issuing the requests for proposal prior to the selection of this consulting firm, Metrolinx had not formally assessed the extent of work it would require or what would constitute reasonable costs for work.
- For two of those consulting contracts totalling $145 million, over 50% (about $97 million) had already been spent only two years into five-year contract periods. At the time of our audit, Metrolinx staff overseeing these contracts did not adequately check that the consulting firm had performed the work to support the hours charged on their invoices and did not address concerns with the consulting firm's poor performance in a timely manner.
- The one consulting firm used by Metrolinx to provide project management services for all LRT projects and certain other projects between 2010 and 2022 often used subconsultants to perform work under its contracts with Metrolinx. Metrolinx may have been able to obtain better value for money if it used competitive bidding for consulting services that were being provided by subconsultants.
- Metrolinx assigned approximately $1.5 million of additional work to the consulting firm that did not relate to the projects specified in the consulting contracts noted above without issuing an RFP for those services. For example, Metrolinx paid $1.2 million for unrelated program management services for the Union Pearson Express and about $367,000 for advice on reorganizing Metrolinx's capital projects group.

LRT Vehicle Purchase

- Metrolinx committed to purchase LRT vehicles for the Eglinton Crosstown, Sheppard East, Finch West and Scarborough Rapid Transit with specific delivery dates without construction contracts in place to build the

LRT projects. The LRT vehicle purchase contract did not contain provisions to address the risk that construction plans could change. The number of vehicles and when those vehicles were needed did change, costing Metrolinx an additional $49 million for contract changes (included in the $436 million noted above).

We made 16 recommendations, consisting of 34 action items, to address our audit findings.

We received commitments from Metrolinx and Infrastructure Ontario at the completion of the audit that they would take action to address these recommendations.

Status of Actions Taken on Recommendations

We conducted assurance follow-up work between April 2020 and September 2020, and obtained written representation from both Metrolinx and Infrastructure Ontario on October 16, 2020, that they have provided us with a complete update of the status of the recommendations we made in the original audit two years ago.

Metrolinx Was Not Effectively Fulfilling Its Mandate to Lead Transportation Planning

Recommendation 1

To effectively fulfill its mandate to implement the transportation plan for the GTHA, we recommend that Metrolinx consider securing provincial and municipal approval for the Regional Transportation Plan and work with the provincial government to agree on long-term funding for the projects in the Plan in order to minimize the risk of project delays and cancellations.

Status: In process to be implemented.

The Office of the Auditor General of Ontario continues to believe that obtaining both provincial and municipal approval for the Regional Transportation Plan, along with securing long-term funding for the projects, is key to minimizing the risk of project delays and cancellations.

Details

During our 2018 audit, we found that while Metrolinx's Regional Transportation Plan guides its decisions and actions, there was no legislative requirement for the provincial government and municipalities to follow the plan. As well, the transportation plan was not linked to long-term funding and only serves to identify projects that need to be funded to achieve the goals set out in the plan. The cancellation of the Scarborough Rapid Transit project and the delay of the Sheppard LRT project cost $125 million. These projects were cancelled and not finished.

Since our audit, in December 2018, the province tabled legislation, Bill 57 (*Restoring Trust, Transparency and Accountability Act, 2018*) that will require the Minister of Transportation to approve Metrolinx's Regional Transportation Plan. Based on this legislation, any future amendment, update or new version of the plan will now require provincial approval. Although municipal approval of the Regional Transportation Plan is not a legislated requirement, Metrolinx's updated business case guidance published in April 2019 enables it to work more closely with municipalities. For example, in the development of business cases for bus rapid transit across the province, municipalities have been involved as part of the project working group in developing and analyzing options and identifying preferred ones.

As a Crown corporation, Metrolinx continues to be governed by the provincial budget process through the Ministry of Transportation, which submits its budget request to the Treasury Board Secretariat on Metrolinx's behalf. As such, the process to secure long-term funding is not in Metrolinx's control. Metrolinx indicated that its transit projects are now being advanced and prioritized using a regional consultation framework. This involves triannual meetings of the Regional Roundtable of Chief Administrative Officers, city managers, and CEOs of municipalities and transit agencies to discuss projects. Metrolinx established and first convened the Regional Roundtable in July 2018 to discuss regional transit issues, confirm transit priorities, and seek buy-in. The Regional Roundtable is supported by a quarterly Municipal Planning Leaders Forum of municipal commissioners of planning and transportation, and a monthly staff level technical advisory committee. The Ministry of Transportation is represented on each of these forums, and Metrolinx confirmed that it holds monthly co-ordination meetings with the Ministry's Transportation Planning Branch.

Province and Municipal Governments, Not Metrolinx, Decided on Light Rail for Five Transit Projects

Recommendation 2

To ensure that future transit projects meet needs cost effectively and that maximum value is obtained from the money spent, we recommend that Metrolinx:

- *objectively evaluate evidence to recommend—and obtain provincial and municipal government support for—transit projects and options that most cost effectively address the identified transit needs of Ontarians (e.g., ridership demand);*
- *undertake these analyses in a timely manner to provide the best advice to decision-makers before significant investments are made on the projects.*

Status: Fully implemented.

Details

Our 2018 audit found that, in February 2010, the City of Toronto, the province and Metrolinx reached a consensus to proceed with LRTs in Toronto requiring provincial funding of $8.15 billion. Metrolinx proceeded with planning the projects from that point on as LRTs without analyzing whether LRT was the best option. In 2014, Metrolinx conducted further analyses to update the business cases for four of the LRT projects in the GTHA: Finch West, Sheppard East, Hurontario and Hamilton. We found that, despite the fact that the draft analyses clearly showed the need to further review whether it was appropriate to proceed with the LRT option for three of the four projects, Metrolinx took no action to address the results of its analysis. We also noted that Metrolinx staff recommended in late 2014 that an intermediate business case, considering the changing context and alternative options, should be completed before an investment decision was made. The results of these analyses were discussed internally with the then Metrolinx CEO in late 2014. However, Metrolinx did not do any further analysis before the province committed to funding the LRTs. In other words, Metrolinx did not act on its findings to then critically assess whether it was planning and building the transit projects that would best serve the region.

Since our 2018 audit, in April 2019, Metrolinx publicly released an updated business case guidance which is used to evaluate transit options. In addition to feedback from municipalities and provincial ministries, the new business case guidance was peer reviewed by a panel of external experts, consisting of professionals, academics and members of the public service in transportation, economics and public policy. However, as previously noted, municipal approval of the Regional Transportation Plan is not a legislated requirement. Metrolinx did implement a new capital approvals policy, effective April 2019, to have progressively detailed business cases prepared for each project and approved prior to the next stage of project development and related investment. The process has five decision stages to be performed by a newly formed Investment Panel. This panel is composed of senior ministry staff who review and provide approval at each stage. For example, the initial business case is required to articulate the options and recommendations for panel consideration. The panel is to challenge the assumptions made in the submission in order to approve or endorse the initial business case as being fit to go the next stage. In the design and procurement stage, the panel evaluates the project framework, designs and requirements used as the basis for procurement. In addition to the panel, the process also requires approval by senior management within the Capital Planning and Strategic Planning Department at Metrolinx, including the Chief Financial and Executive Officers and by the Assistant Deputy Minister (Agency Oversight and Partnerships Division) at the Ministry of Transportation.

Metrolinx's *2041 Regional Transportation Plan* Lacked Action Plans for Connecting Needs of GTHA, Prioritization and Project Funding

Recommendation 3

To have transit projects planned and built with the greatest benefit to the Greater Toronto and Hamilton Area (GTHA) as a whole, we recommend that Metrolinx:

- *develop an action plan to identify and address the growing connectivity needs of the GTHA regional transportation network as a whole, given that previously envisioned connections have been lost with changes in light rail transit project plans;*

  Status: Fully implemented.

Details

Our 2018 audit noted that the original vision for the LRT projects was to connect major hubs and employment centres. Two key connections were lost in February 2010, when provincial funding was fixed at $8.15 billion. The province, Metrolinx, the City of Toronto and the TTC reached a consensus to shorten two lines, Eglinton Crosstown and Finch/Sheppard LRT. These changes forced Metrolinx to implement its plan in a piecemeal manner. The *2041 Regional Transportation Plan* issued in 2018 did not have timelines to restore the connections, so it was not known when or even if these projects would reach their full potential in serving transit users.

Since our audit, Metrolinx indicated that it addressed issues with lost connections, including Eglinton Crosstown LRT's westward extension from Weston to Pearson Airport, an east-west rapid transit connection between the Finch West LRT and the Sheppard subway, and the Hurontario LRT's northward extension from Steeles to downtown Brampton. Capital funding for the Eglinton West LRT extension to Pearson Airport (Renforth terminal) has since been announced as part of the province's April 2019 Budget. In February 2020, Metrolinx developed and published a prioritization framework for the unfunded components of the frequent rapid transit network that was identified in the *2041 Regional Transportation Plan*. In the prioritization framework, two of eight measures address project connectivity to the existing and future rapid transit network. A new annual prioritization of transit plans is intended to ensure that regional connectivity is regularly evaluated and considered when selecting projects to examine in more detail through business cases. Metrolinx's first annual review of the prioritization work, including connectivity, is scheduled to take place in December 2020.

- *update its prioritization framework to guide the delivery of the projects identified in the* 2041 Regional Transportation Plan*;*

  Status: Fully implemented.

Details

Our 2018 audit identified that Metrolinx had not prioritized projects in the *2041 Regional Transportation Plan*. Metrolinx first developed a project prioritization framework in 2010 and later updated it in 2015. This framework was used to rank unfunded projects in the 2008 Plan—*The Big Move*—and then provide advice to the provincial government. However, it has not been used since 2015.

Since our audit, between November 2018 and September 2019, 10 workshops and multi-stakeholder meetings were held with municipal and provincial staff through the Municipal Planning Leaders Forum and Technical Advisory Committee to discuss the evaluation approach, collect and confirm technical inputs, present draft results, and discuss comments and concerns. Metrolinx worked with the Ministry of Transportation through these forums, holding monthly co-ordination meetings and producing a presentation for the Metrolinx Board. The evaluation groups projects into three categories: High Scoring, Medium Scoring, and Refine and Monitor. Each project was given an overall score to determine its level of priority. The final results of the 2019 evaluation identified nine projects in the High Scoring category, 33 in Medium Scoring, and 27 in Refine and Monitor. These were presented to Chief Executive Officers, including the TTC and regional Chief Administrative Officers at the Regional Roundtable on February 25 and August 14, 2019, and the Municipal Planning Leaders Forum on September 30, 2019. The evaluation, published in February 2020, resulted in a prioritization listing of all unfunded transit projects identified in the *2041 Regional Transportation Plan*, which will now be used to inform which projects Metrolinx should consider next for more detailed business case analysis. Metrolinx expects to conduct its first annual review of the updated prioritization in December 2020.

- *prepare and propose a funding strategy for approval by the Province and municipal governments;*
- *prepare an action plan with execution timelines correlated with the funding strategy; and*
- *publicly report on its status in meeting its action plan.*

Status: Will not be implemented.

The Office of the Auditor General of Ontario continues to believe that long-term planning would benefit from a long-term funding plan and with public progress reporting.

Details

During our 2018 audit, we noted that one of the reasons for the lack of prioritization was that dedicated funding for the transit that Metrolinx proposed in 2013 was never put into place. Metrolinx had proposed that the provincial government pass legislation to provide a steady stream of funding for transit (e.g., a share of the HST), but none of the proposed funding streams was enacted.

Since our audit, Metrolinx has completed prioritization work, listing all unfunded transit projects identified in the *2041 Regional Transportation Plan*, which will now be used to inform which projects Metrolinx should consider next for more detailed business case analysis. However, as noted previously, as a Crown corporation, Metrolinx continues to be governed by the provincial budget process under which the Ministry of Transportation submits Metrolinx's budget request to the Treasury Board Secretariat on Metrolinx's behalf. As such, the process to secure long-term funding is not in Metrolinx's control.

Metrolinx Needs to Better Manage Financial and Completion Timeline Risks for the Eglinton Crosstown LRT Project

Recommendation 4

To better control the risk that AFP projects are not completed on time and within budget, we recommend that Infrastructure Ontario develop tools and remedies for incorporation into AFP contracts to address early indications of project delays.

Status: In process to be implemented. The effectiveness of changes made is not yet clear.

Details

Our 2018 audit found that Metrolinx had limited remedies available to hold the AFP consortium constructing the Eglinton Crosstown LRT responsible for project delays as long as the consortium certified it would still finish the project on time. The AFP consortium began falling behind schedule in

2017. However, Metrolinx had the right under the AFP contract to ask for additional information from the AFP consortium in order to perform a detailed assessment of the work schedule if the AFP consortium indicated that project completion would be delayed. However, Metrolinx said that it did not do so because the AFP consortium represented that it could still finish on time. In December 2017, the AFP consortium was still certifying it would meet the contracted completion date of September 2021 and indicated that, in February 2018, it would provide solutions to mitigate schedule delays. The AFP consortium then itself filed a claim against Metrolinx in February 2018 for extension of the project completion date to October 2022.

Since our audit, Infrastructure Ontario introduced new provisions into AFP contracts that build on existing mechanisms in these contracts to allow for assessment of the progress of construction and, in certain circumstances, to require the contractor to accelerate construction in order to complete the project by the scheduled date. These provisions include the review of regular schedule submissions and any failures to maintain the schedule. Since our 2018 audit, Infrastructure Ontario and Metrolinx have included the new provisions and used these mechanisms on, for example, the Highway 427 Expansion, Highway 401 Tunnel, Groves Memorial Hospital and Etobicoke General Hospital.

In addition, in April 2020, Infrastructure Ontario reworked its dispute resolution process to be included on new projects. The new process is intended to provide a quicker resolution of disputes, including, for example, having smaller disputes be resolved through an early binding process rather than being subject to arbitration. Infrastructure Ontario also eliminated the requirement that a dispute resolution process be completed before Metrolinx could exercise its contractual right to terminate its relationship with a contractor and select a new one.

Infrastructure Ontario indicated that it set up a Commercial Resolutions Group (CRG) in June 2018 comprising a team of lawyers specializing in disputes who work closely with each project lawyer and delivery team to more proactively identify project delays and risks, and to respond to claims in a consistent manner. In addition to providing centralized advice and training project delivery teams implementing the projects, the CRG rolled out a protocol on all projects in October 2019 to provide direction related to claims across the portfolio. The CRG has provided guidance on delays and other claims across the Infrastructure Ontario portfolio, including several GO Expansion projects, Highway 427, Michael Garron Hospital, Eglinton Crosstown LRT, Finch West LRT and Hurontario LRT. Infrastructure Ontario has also hired additional specialized individuals to support the implementation of industry standards and more consistent cost and schedule controls on projects. Similarly, the joint Metrolinx and Infrastructure Ontario project delivery teams received additional training on claims and increased expertise in project management.

Although these steps have been taken, it is unclear whether they will be effective going forward.

Recommendation 5

To hold the AFP consortium to the requirements of the AFP contract that the Eglinton Crosstown Light Rail Transit project be completed on time and on budget, we recommend that Metrolinx:

- *take prompt action as soon as it becomes aware of delays and hold the AFP consortium accountable for the contract requirement to submit action plans to eliminate or reduce delays;*

  Status: In process of being implemented.

  The Office of the Auditor General of Ontario notes that while some reporting improvements were put in place, the consortium is still experiencing delays and will be unable to meet contract requirements.

Details

Our 2018 audit found that the AFP consortium began falling behind schedule in 2017. Metrolinx had the right under the AFP contract to ask for additional information from the AFP consortium in order to perform a detailed assessment of the work schedule if the AFP consortium indicated that project completion would be delayed or if, in Metrolinx's opinion, the consortium had fallen significantly behind the work schedule; however, Metrolinx did not do so because the AFP consortium represented that it could still finish on time. The AFP consortium continued to submit schedules with increasing delays throughout 2017, and Metrolinx staff communicated its concerns about the delays. However, the AFP consortium did not adequately address them. Our audit also noted that in August 2018, Metrolinx then paid $237 million to settle delay-related claims that were launched by the AFP consortium. Of the $237 million, $100 million was classified as incentive and acceleration compensation subject to clawback if the AFP consortium did not achieve substantial completion on or before September 29, 2021.

Since our audit, Metrolinx has relied on measures introduced as a result of the claim settlement agreement with the consortium. The settlement included new requirements for the consortium to submit a detailed schedule each month, measure deterioration of or improvement in the schedule, provide a critical path assessment, and hold monthly executive staff meetings with Metrolinx. However, from March to December 2019, Metrolinx staff "rejected" all monthly submissions on the basis that there were substantial deficiencies present. Metrolinx sent numerous letters to the consortium throughout 2019 indicating that performance was deteriorating. In November 2019, Metrolinx issued another letter noting that a recovery plan must be submitted as the target date of September 2021 no longer appeared achievable. In March 2020, Metrolinx told the consortium that it must submit a compliant work schedule. At the time of our follow-up, the consortium had not submitted either a compliant work schedule or a recovery plan. Metrolinx's CEO made a public statement in February 2020 indicating that the "Eglinton Crosstown LRT will not be operational in September 2021." No steps were taken to claw back the $100 million incentive and acceleration compensation because Metrolinx cannot access the clawback until September 2021.

- *properly validate all future claims and only pay for costs that have been found to be its responsibility;*
- *in future instances where a claim is filed against it:*
  - *document its analysis linking the allegations in the claim to what actually happened and obtain evidence to support the claim, before entering into negotiations with the claimant; and*
  - *document the analysis and support associated with all aspects of the settlement arrived at.*

Status: Little or no progress. Another settlement negotiation process was occurring at the CEO level at the time of our follow-up.

Details

During our 2018 audit, we noted that in the claim, the AFP consortium identified areas where delays had occurred, holding Metrolinx responsible for them. However, the claim did not include support for the AFP consortium's position that Metrolinx was responsible for the delays. For example, for delays relating to design submissions, the consortium did not provide evidence of how it had been ensuring that it was meeting TTC design standards. Our 2018 audit also found that Metrolinx noted that the AFP consortium had not followed appropriate procedures in case of delays, such as submitting information about each individual delay event as it occurred, to allow Metrolinx to investigate any problems associated with delays, monitor the AFP consortium's progress and take action where appropriate. Metrolinx agreed to pay the consortium a settlement amount of $237 million that it determined to be a portion of the estimated total risk exposure but did not ask the AFP consortium for documentation to support the claim amount. In addition, we also noted that, where Metrolinx had assessed that delays might have been of its own making, it did not have sufficient documentation to justify the amount of the settlement paid by Metrolinx.

Since our audit, Metrolinx has received 132 new claims from the consortium, and all were unresolved. Metrolinx noted the reason for this is that the consortium ought to have reasonably known that the issues in the claims existed prior to the 2018 settlement agreement or due to the fact that evidence in support of its claims had not been submitted in accordance with their contractual requirements or in the timely manner that is contractually required. Nevertheless, we discovered that Metrolinx was again engaged directly in negotiating a settlement agreement, with no substantial changes in its process to document the validity of allegations and evidence to demonstrate the credibility and the value of the claims made by the consortium and to inform Metrolinx in its negotiations. Although the settlement was not finalized, this situation was not disclosed to us by Metrolinx as of September 2020. We obtained information that this was occurring through our own means.

Recommendation 6

To provide for clarity and a shared mutual understanding of risk responsibility between public-sector and private-sector parties to AFP contracts, we recommend that Infrastructure Ontario ensure AFP contracts are drafted reflecting the maximum feasible transfer of risk to the private sector established in the initial value-for-money assessment justifying the use of AFP for the project.

Status: In process to be implemented. The effectiveness of changes made is not yet clear.

Details

Our 2018 audit noted that as part of the government's decision to use the AFP approach on the Eglinton Crosstown LRT project, Metrolinx, in conjunction with Infrastructure Ontario, completed a value-for-money assessment that detailed the many risks (such as contamination and permit delays) the project could encounter. In its agreement with the AFP consortium, it retained responsibility for some, but not all, of these risks. At the time that the assessment was performed (before the contract was signed), Metrolinx and Infrastructure Ontario estimated that Metrolinx was retaining about $563 million of risks. When we reviewed this assessment in light of the claim, we similarly estimated, with input from Infrastructure Ontario, that approximately $66 million worth of those risks could relate to factors identified in the claim prior to the awarding of the contract. We confirmed the $66 million with Infrastructure Ontario. However, the August 2018 settlement of $237 million significantly exceeded this amount.

Since our audit, the province has introduced Bill 171 (the *Building Transit Faster Act, 2020*), which received royal assent in July 2020. Some of the measures in the Bill seek to reduce risks to Metrolinx raised by development adjacent to transit corridors by the private sector. For example, prior to the Bill, a third party could receive development permits from a municipality for development work on property adjacent to a Metrolinx project. If the work impacted Metrolinx's construction, Metrolinx would have to go through a municipal process to change or stop the permit, which could lead to months of delay. However, Metrolinx indicated that it is now in control of issuing permits that fall within the transit corridor.

During November and December 2019, Infrastructure Ontario and Metrolinx jointly conducted a series of consultations regarding risk transfer under previous project agreements. It also consulted with the project team of the Montreal LRT project, the Edmonton LRT program and the Sydney, Australia Metro program. Metrolinx heard from Infrastructure Ontario that there is a decreasing willingness by contractors to assume responsibility for risks that could not be accurately priced or controlled, such as site conditions, geotechnical risks and utilities. The result of Infrastructure Ontario's review were draft terms and conditions published in March 2020 to change the risk transfer framework. These changes had been included in all of the more recent subway projects, such as Eglinton West Tunnel, Scarborough Subway Extension, and the Ontario Line. For example, Infrastructure Ontario and Metrolinx indicated that they decided to retain more risk in AFP projects than before. It explained that it now needs to retain certain risks, such as those related to geotechnical and site conditions, utilities, permits and licences due to the unpredictable nature of these elements. However, Infrastructure Ontario and Metrolinx indicated that they introduced enhanced due diligence with respect to site conditions in order to better manage the risk. For example, it introduced a more detailed geotechnical report with a set of assumptions or baselines for interpreting the geotechnical data that a contractor can assess and price accordingly. This report has parameters for geotechnical conditions. If geotechnical conditions are outside those parameters, the risk is supposed to be the province's; otherwise the risk is supposed to be with the contractors, with the intention to limit opportunities for disputes. Infrastructure Ontario has indicated that it implemented these contract changes for RFPs starting in August 2020. The impact of the above-noted change is still unclear and unproven.

Recommendation 7

To rectify the design submission and content problems being experienced so that there are no undue delays in the future and to ensure that the Eglinton Crosstown Light Rail project is built according to agreed-upon requirements, we recommend that Metrolinx work with the AFP consortium to:

- *promptly resolve issues identified by Metrolinx's technical advisors and the TTC regarding designs that do not meet project requirements and specifications;*

  Status: Little or no progress.

Details

Our 2018 audit found that the majority of the designs being submitted for review by the consortium were incomplete or missing technical details. For example, we found that by September 2018, of the 2,655 designs submitted, 1,663 (63%) had issues requiring the AFP consortium to either resubmit (for 254, or 10%, of the designs) or provide more information showing how it is addressing a noted problem (for the remaining 1,409, or 53%, of the designs).

Since our audit, Metrolinx technical advisors noted that the consortium was continuing to experience design issues. In October 2018, Metrolinx wrote to the AFP consortium to restate the need going forward to ensure that project designs meet project requirements and specifications, and requested that a working group meeting be convened with them related to improving their design submissions process. The consortium responded saying that Metrolinx's requests were above and beyond existing obligations and that it would meet the substantial completion date of September 2021. Metrolinx continued to note issues with the quality of designs, sending eight letters between January and November 2019. In October 2019, Metrolinx's letter to the consortium included a summary of potential delays that were identified in the consortium's work schedule, pushing substantial completion to October 2021. At the end of November 2019, Metrolinx received a work schedule that pushed substantial completion to May 6, 2022. In March 2020, Metrolinx wrote to the consortium noting that it had failed to submit detailed narratives to support the work schedule as required by the contract since November 2019. It said that the consortium would be at risk if it was assessed that it had built the infrastructure in a manner that was not in compliance with the design or the requirements of the project agreement. For example, site instructions are expected to be submitted once the final design has been approved; however, these were being submitted prior to reaching full design approval or "reviewed" status. This was occurring due to the consortium proceeding to "build at risk" in the absence of finalized designs. At the time of our follow-up, there were 380 rejected design submissions, with the consortium continuing construction at risk of non-conformance. Although Metrolinx can also issue a non-conformance report and insist that the matter at fault be rectified, we noted that Metrolinx has not acted on this and has only issued one design-related non-conformance notice since the time of our last audit.

- *minimize the number of partial designs submitted to facilitate design review and approval by Metrolinx's technical advisors and the TTC.*

  Status: Little or no progress.

Details

During our 2018 audit, we found that in order to expedite construction on the project, the AFP consortium decided to and routinely submitted partial designs to Metrolinx for review. The technical advisors noted that the submissions were sometimes provided in an illogical sequence or were too fragmented. This necessitated inefficient extra reviews by Metrolinx staff, which were undertaken without all the required information having been provided. For example, the AFP consortium submitted some station designs before submitting designs for excavation and shoring work (work to temporarily support or prop up structures in danger of collapse during construction), which precedes station construction. The AFP consortium had also submitted station designs before providing a complete hazard log, so the Metrolinx technical advisors could not evaluate if the station designs were safe and controlled the risk of hazards.

Since our audit, no improvements have occurred as Metrolinx's project agreement with the AFP consortium was not renegotiated to include provisions that would allow Metrolinx to restrict partial submissions. Metrolinx can encourage the AFP consortium to submit its designs in a size and sequence that optimizes the design process and conserves the resources of all parties. However, as noted earlier, under the project agreement, the consortium can and did choose to proceed "at risk," that is, proceeding knowing that it was assuming responsibility should it later be assessed that it has built the infrastructure in a manner not in compliance with the design or with the requirements of the project agreement. This has not changed since our 2018 audit.

Recommendation 8

To support accurate and transparent budgeting of costs on all transit projects, we recommend that Metrolinx continually consult with relevant stakeholders on cost estimates as part of the budget-setting and cost-monitoring processes.

Status: In the process of being implemented by September 2022.

Details

Our 2018 audit found that Metrolinx agreed to pay the TTC additional operating costs incurred because of disruptions, requiring the TTC to run buses on alternative routes. However, we found that Metrolinx did not consult the TTC when it initially budgeted these costs at $19 million in December 2014. By the time of our audit, this initial budget had been fully used up. In August 2016, Metrolinx asked the TTC to provide an estimate for the remainder of the project. The TTC projected costs of $72.5 million.

Since our audit, Metrolinx has continued to work with the TTC on the question of cost reimbursement related to bus services. In March 2020, Metrolinx indicated that it implemented an enhanced process and oversight mechanism to ensure collaboration with relevant stakeholders. The new framework, which was developed in collaboration with the City of Toronto, TTC and Ministry of Transportation, relates to a number of regional transit programs in delivery, such as GO Expansion and LRT and subways programs. For example, the framework was used to determine an appropriate fare collection solution for the Eglinton Crosstown LRT, with particular focus on where and whether to make use of fare gates. This matter was managed within the governance framework through a newly formed Rapid Transit Steering Committee. Based on deliberations there, a working group was assembled involving relevant staff from Metrolinx and the TTC that allowed Metrolinx to propose an option with an associated budget estimate intended to address the TTC's operational preferences. This approach intends to provide budget certainty to both parties; timely resolution of a critical scope question prior to a point when resolution might have entailed significant impact on the project's cost or schedule; and alignment between the TTC, as future operating partner, and Metrolinx, the asset owner and electronic fare system provider. However, on the question of cost reimbursement related to bus services, Metrolinx noted that arbitration was initiated by the TTC in November 2019 regarding the issue and is due to start in late 2020 or early 2021. Metrolinx also noted that cost negotiations related to the arbitration started in March 2020 and are ongoing.

Metrolinx Continues to Use the Same Primary Consultant and Sub-consultants for Consulting Services without Issuing Public Requests for Proposal

Recommendation 9

To ensure that value for money is obtained from contracted services, we recommend that Metrolinx:

- *evaluate if its current use of consultants in their current capacities is justified and adjust where appropriate to reduce the dependency on one consulting firm;*
  Status: In progress of being implemented. Metrolinx still has a dependency on one consulting firm since 2010.

- *conduct a request-for-proposal process to procure defined program management services;*
  Status: Will not be implemented. The Office of the Auditor General continues to believe that this would be a reasonable process to undertake given that the same primary consultant has benefited from Metrolinx's business since 2010 without conducting an open Request for Proposal.

- *before extending contracts, evaluate and document whether it would be more appropriate to retender;*
  Status: Little to no progress. Metrolinx only justified the continued use of its current contractors versus conducting an open-market RFP given the large value of the contract.

Details

Our 2018 audit noted that Metrolinx procured a consulting firm in 2010 to provide program management services for the LRT projects without adequately detailed documentation to demonstrate that it had assessed the extent of the required services against the level and type of resources required to deliver the projects.

Since our audit, in October 2018, Metrolinx undertook an internal evaluation exercise to justify its extensive use of the same contractor staff it has been using for many years prior to extending the consultant's contract. Metrolinx conducted an examination of overall spending on consulting in its capital program as compared with international comparators and assessed the consultant's hourly rates in hindsight against similar recently procured contracts. Management reached the conclusion that Metrolinx would get the best value by continuing with its present consultant, and should extend its contract to December 31, 2022, at a cost of $293 million. This analysis, including other alternatives, was presented to the Metrolinx Investment Panel on January 22, 2019, and to the Metrolinx Board of Directors, which endorsed management's recommendation in February 2019. As part of the assessment, Metrolinx also plans to reduce its reliance on consultants over the contract period, ending on December 31, 2022. The strategy also determined that there should be a planned gradual transition as certain duties are transferred to Metrolinx, Infrastructure Ontario or other suppliers.

- *establish the scope of work and budget before procuring consultants and use this to assess proposals from bidders.*
  Status: In process of being implemented. Metrolinx continues to use the same consultant and has had the consultant commence work prior to formal work approval.

Details

During our 2018 audit, we noted that by June 2014, Metrolinx was on track to spend all of the $44 million it had budgeted for a consultant providing program management services on five rapid transit projects. Metrolinx explained that it had spent the originally contracted amount faster than anticipated because of extra costs incurred when the TTC withdrew from the day-to-day management of the LRT projects in mid-2012. When we tried to confirm the nature and reasonableness of those extra costs, Metrolinx could not provide us with detailed evidence to show us what had been done to justify paying for them. We also noted that Metrolinx extended the original $44-million value of the consultant contract by $75 million in 2014. Metrolinx did not re-tender for these extensions competitively as it wanted vendor continuity and believed that, at that point, introducing a potentially new consulting firm would cause delays. Metrolinx indicated to us that it had assessed workforce planning to determine the configuration of in-house and consultant resources, but it was unable to clearly show us how this work led to an amount of $75 million for the extension.

Since our audit, as noted above, Metrolinx determined that it will continue its dependence on this sole management consultant. Metrolinx introduced an amendment to the contract in April 2019, which states that the consultant shall not proceed with work unless authorized by Metrolinx in the form of a “Work Plan Release.” The plan must include information on services or work to be performed; an itemized quote for the performance of the task, including the estimated hours for each position to perform the required services or work; a schedule identifying key milestones and deliverables; any requirement for specialized services or subconsultants, and any other information Metrolinx may require. Metrolinx senior management approved the work plan on July 22, 2019. However, Metrolinx notes that work commenced on projects outlined in the plan on April 1, 2019, before it was finalized. In order to meet the contractual requirement of having an approved work plan before the start of the fiscal year, and to continue critical support from the consultant for the capital program, Metrolinx formally requested the consultant to continue its services for a period of three months (April through June 2020) with the condition that no changes would be made to existing resource levels from the previous year without Metrolinx approval. This was conveyed through a formal letter issued on March 30, 2020. In addition to the primary consultant contract, Metrolinx updated its procurement policy for all other consultant contracts in September 2019 to include requirements for detailed submissions of work deliverables and estimates of costs represented in statements of work and related budgets.

Recommendation 10

To ensure cost-effective planning for, and acquisition and management of, consulting services, we recommend that Metrolinx:

- *thoroughly assess the nature of the work requirements under these contracts to determine whether a separate procurement, as per its policy, is warranted;*
  Status: Little or no progress.

Details

During our 2018 audit, we noted that, in some cases, Metrolinx requested its primary consultant to engage subconsultants and had used a number of them regularly for several years. In one example, the consultant paid $7.4 million over five years to a subconsultant for engineering-related advice. In these cases, Metrolinx could not provide documentation showing why competitive procurement was not considered. We also found that the primary consultant also charged Metrolinx a mark-up of 2.5% of the subconsultants' charges for it to administer subconsultant agreements, which represented $1.4 million in charges by June 2018,

Since our audit, in April 2019, Metrolinx amended the contract with the program management consultant, removing the 2.5% mark-up and implementing a new process called "Subconsultants Approval Process for Project Management Services Contracts." The new process contains three key controls: a requirement that there be a detailed review to determine whether in-house expertise is already available among current consultant staff for the proposed subconsultant work; senior management approval; and a validation of charge rates and time. Metrolinx notes that no new subconsultants were procured since our audit and therefore no thorough assessments were conducted. However, over the period of December 2018 to June 2020, Metrolinx still spent an additional $51 million on subconsultants through its existing contract with its primary consultant. Metrolinx did not assess the nature of the work requirements for these subconsultants under these contracts and did not assess whether a separate procurement was warranted as per its new policy.

- *review the rates of subconsultants to ensure they are reasonable;*
- *document its review and approval that payments are only being made for work completed within the scope of the contract.*

Status: Fully implemented.

Details

Metrolinx implemented a process for assigning remuneration rates to consultants and subconsultants at the time of their hiring as part of the April 2019 contract amendment with the primary consultant. At the time of adding a contractor, its remuneration rate is established based on internal benchmarking to the same or similar positions already established under the main contract, and the new staff's qualification and experience. This process establishes the required qualifications and experience, as well as maximum remuneration rates, for all contractor and subcontractor roles. Furthermore, in August 2019, Metrolinx implemented an invoice approval process to ensure that consultants are only paid for work that they were hired to complete. Metrolinx notes specific tasks to assigned work, undertakes bi-weekly timesheet review and approval, and analyzes the reasonableness of the costs. The analysis includes checking overtime hours to ensure that they are reasonable and that a contractor has not erroneously entered time spent on an unrelated project, and also conducting a payroll-over-payroll hourly analysis to identify any anomalies.

Recommendation 11

To improve accountability for payments made and work requested under the contracts, we recommend that Metrolinx establish rigorous and disciplined processes that:

- *explicitly detail all deliverables for work requests before the requests are formally approved;*
- *require formal approval of work requests be documented before any work begins;*

Status: Fully implemented.

Details

Our 2018 audit found that Metrolinx did not always specify the scope of and rationale for work in its work requests. The work done ranged from attending meetings to providing input on different topics as requested by Metrolinx. In cases where Metrolinx brings a subconsultant on board to advise, there are no physical deliverables. Tracking the work done can occur only by tracking the time the subconsultant spends on key deliverables and assessing the subconsultant's performance. However, our 2018 audit found that Metrolinx had not done this adequately. Our 2018 audit also found that work was not approved before it began. In a number of instances, we noted that Metrolinx issued requests for subconsultants to do work they had already started or even completed. For example, Metrolinx revised a work request on September 14, 2017, for work the subconsultant did between April 1, 2017, and September 30, 2017. In another example, Metrolinx issued a work request on December 17, 2015, for work the subconsultant did between August 2015 and October 2015.

Since our audit, Metrolinx has introduced an amendment to the primary consultant contract in April 2019, which states that the consultant shall not proceed with the work unless authorized by Metrolinx in the form of a "Work Plan Release." The plan must include information on services or work to be performed; itemized quote for the performance of the task, including the estimated hours for each position to perform the required services or work; a schedule identifying key milestones and deliverables; any requirement for specialized services or subconsultant; and any other information Metrolinx may require. Metrolinx senior management approved the work plan on July 22, 2019.

- *monitor compliance with the new policy on approval limits for spending.*
  Status: Fully implemented.

Details

During our 2018 audit, we noted that although Metrolinx had a policy that defines the approval limits for signing new contracts, it did not have a policy on the limits for authorizing spending under contracts once they were approved. As such, we found no approval limits for spending on subconsultant contracts. Under Metrolinx's policy for new contracts, a director, for example, could approve a new contract only if it was worth less than $250,000, but the same director could authorize spending for work requests under an existing approved contract for any amount. In December 2017, changes were made to the approval policy for new contracts whereby individuals less senior than the Chief Capital Officer are held to the same maximum-dollar limits in approving work under existing contracts as they must follow in signing new contracts.

Since our audit, Metrolinx confirmed that all commitments above $250,000 must now be approved by the Vice President. Metrolinx also provided certificates of payment for invoices between June 2018 and June 2020 which confirmed that the approval policy was followed accordingly.

Recommendation 12

To provide for effective oversight of the work done by consultants, we recommend that:

- *Metrolinx enforce the requirement that annual work plans contain complete details on time estimates, key milestones and deliverables;*
  Status: Fully implemented.

Details

Our 2018 audit noted that under three consulting contracts for program management services, Metrolinx listed tasks for the consultant to perform, and the consultant was to use that list to provide Metrolinx with a detailed annual work plan. However, our audit found that only the first annual work plan for the original contract, from August 10, 2010, to March 31, 2011, had these details. The subsequent annual work plans did not. Rather, they described tasks to be completed with no breakdown of the budgeted hours and costs per person, and no start and end dates.

Since our audit and as described in **Recommendation 11**, Metrolinx introduced an amendment to the contact in April 2019, which states that the consultant shall not proceed with the work unless authorized by Metrolinx in the form of a "Work Plan Release" that contains time estimates, key milestones and deliverables. In addition, work plans external to the annual work plan are to be reviewed and approved according to the "Task Approval Process," which requires that all work completed by the consultant is detailed (including a scope of work, budget, personnel and rate details) and formally approved before work begins.

- *Metrolinx staff directly overseeing the work of consultants verify invoices against the specific requirements of the detailed annual work plans and assess the reasonableness of the hours charged before payments are approved.*
  Status: Fully implemented.

Details

During our 2018 audit, we noted that contracts required consultants to submit invoices and a progress report on the annual work plan every month. However, we found that the contract administrators reviewing the monthly invoices for payment were not directly responsible for overseeing the consultant's work. The person consultants directly report to did not review whether the consultant had done the work satisfactorily and that the hours charged for the work were reasonable. Contract administrators' review of invoices was limited and mainly checked for compliance with contract terms and that the amounts were within the approved budgets. We did note that, during our audit, Metrolinx improved its review of invoices. Starting with the June 2018 invoices, Metrolinx personnel directly oversaw the consultants' work review and approved invoices for payment.

Since our audit, Metrolinx introduced several revisions into contracts to help oversee and verify hours charged. Starting in June 2018, the consultant was required to submit invoices with a detailed report of staff hours and work performed. Through the implementation of the task approval process and the timesheet approval process in April 2019, Metrolinx is able to monitor consultants to ensure that all work completed is directly tied to an approved work plan. At the start of every contract year, work releases (similar to a work order) are created based on budgets in the Annual Work Plan. These work plans provide details on key milestones, an estimated budget and timelines. Consultants and subconsultants must book their hours to a work release that has been approved according to the Metrolinx approval limits. As such, when Metrolinx reviews the hours charged to a specific work release, it is able to verify that the work completed directly ties to requirements outlined in either the Annual Work Plan or to an approved external task.

Recommendation 13

To help Metrolinx hold its consulting firms accountable for high-quality services delivered in a timely manner, we recommend that Metrolinx develop and include in all its contracts provisions to address and mitigate, in a timely manner, issues arising from poor performance of contractors.

Status: Fully implemented.

Details

Our 2018 audit found that Metrolinx did not formally assess the quality of services provided by a consulting firm with contracts valued at $44 million before it allocated another $83 million to the consultant. We also found that in fall 2017, a member of Metrolinx senior management observed that the consulting firm was underperforming. We noted that it could not be demonstrated that the consultant had done the work to fully meet Metrolinx's needs, and no formal evaluations of the consulting firm were being conducted by Metrolinx.

Since our audit, following direction from its Board of Directors made in April 2019, Metrolinx incorporated enhanced contract terms to ensure vendor performance. To comply with the Board's direction, Metrolinx renegotiated terms with the primary consultant and obtained a formal agreement that allows Metrolinx to measure the consultant's performance and impose financial penalties at the end of year, if applicable. The new mechanism for imposing penalties, with which the primary consultant agreed, took effect on April 1, 2020. In addition, in March 2020, the primary consultant agreed to a set of key performance indicators to monitor performance, including the timely drafting of invoices, submission of task plans and completion of deliverables. Metrolinx will be able to hold back payment of the primary consultant's invoices if its performance is not satisfactory.

Metrolinx Procured Vehicles Early, without Fully Addressing the Risk that Plans Could Change

Recommendation 14

To help ensure that future transit projects are delivered as smoothly and cost-effectively as possible, we recommend that for each project Metrolinx produce a detailed, integrated plan that identifies the project's infrastructure and vehicle needs, and adequately addresses uncertainties around the project, before fixing the timelines and starting procurement.

Status: Fully implemented.

Details

Our 2018 audit found that a Metrolinx study completed in October 2009 noted significant uncertainties related to the purchasing of vehicles for its LRT projects. These uncertainties included the type of vehicle required, the diameter size of tunnels, and the engineering challenges of an LRT intersecting with GO trains, TTC subway lines and buses. We noted that, although uncertainties related to vehicle specifications (such as the low-floor requirement, the size of the vehicles, and the technology to be used) were resolved before the vehicle contract was signed, procurement for the main AFP contracts to design and build the LRT lines had not yet begun when the vehicle contract was signed. Despite not having the main AFP contracts in place to design and build the LRT projects, Metrolinx contracted with Bombardier for the vehicles in June 2010 without adequate provisions in the contract to address the risk of changes to plans. Due to provincial and municipal government decisions, including the cancellation of the Scarborough LRT, the lack of adequate provisions led to about $49 million in additional costs for vehicles.

Since our audit, Metrolinx has incorporated vehicle needs assessment as part of its Investment Panel process, in which senior ministry staff review and provide approval at several stages. (See **Recommendation 2**.) For vehicle procurement, documentation presented to the panel must pass through three stages, with each stage requiring several different assessments. For example, the Investment Panel declined a vehicle purchase due to incomplete information on lifecycle maintenance, the option of refurbishing existing vehicles, and costs of leasing versus buying. The process now requires all transit investments to include a component where infrastructure and vehicle needs for a project must be reviewed and approved before fixing timelines and going to procurement.

Recommendation 15

To encourage suppliers to meet their contract commitments, we recommend that Metrolinx include additional provisions in contracts to protect it from incurring additional costs because of delays.

Status: Fully implemented.

Details

Our 2018 audit found that in October 2014, Metrolinx's then CEO wrote Bombardier that "we are losing confidence in Bombardier's ability to deliver service-ready vehicles without a substantial change in approach." In 2015, Bombardier missed its deadline to provide a functional pilot LRT vehicle for testing because of quality and manufacturing issues. With problems and delays continuing, Metrolinx tried to cancel the Bombardier contract in 2016. However, Bombardier chose to dispute the proposed termination. It was only by the end of 2017, two years after the initial deadline, that pilot vehicles were ready for testing. We noted that, as of June 2018, Metrolinx had incurred about $25 million in external costs (for consultants and lawyers) in dealing with Bombardier's delays.

Since our audit, Metrolinx has amended contracts or introduced provisions in contracts intended to protect it from additional costs because of delays. For example, Metrolinx introduced a new provision for the Hurontario LRT project that is supposed to transfer the risk and responsibility for design, manufacturing, delivery, testing and commissioning of vehicles to the selected contractor. Metrolinx negotiated the terms of this agreement with the vehicle provider, Alstom, between August 2017 and April 2019, finalizing the agreement in October 2019. This agreement intends to protect Metrolinx from the risk of additional costs that might arise from possible communications problems between systems on the LRT line (the responsibility of Mobilinx, the winning AFP consortium) and systems on the trains (the responsibility of Alstom, the vehicle supplier) since the risk is transferred in the procurement process. Metrolinx confirmed that penalties for delays were also included in the Finch LRT Alstom contract. Metrolinx also indicated that it had transferred the risk of and responsibility for design, manufacturing, delivery, testing and commissioning of vehicles the GO Expansion and Ontario Line projects to the winning contractors.

Recommendation 16

To effectively manage the increased risks and costs from Metrolinx's procurement of vehicles from the second supplier Alstom, we recommend that Metrolinx:

- *assess the benefits and costs of transferring the responsibility of managing the delivery of Hurontario's light rail vehicles to the winning bidder for the Hurontario AFP contract;*

  Status: Fully implemented.

Details

Our 2018 audit found that when the Ontario Superior Court of Justice ordered Metrolinx into dispute resolution with Bombardier in April 2017, Metrolinx was not convinced that Bombardier could meet the deadline for the Eglinton Crosstown LRT. We noted that, in May 2017, a month after the court order, Metrolinx made a single-source procurement of 60 vehicles from a second supplier, Alstom, for $530 million; 43 vehicles were intended for the Eglinton Crosstown and 17 for Finch West. If Bombardier met the Eglinton Crosstown deadline, the 43 Alstom vehicles would be used for the Hurontario LRT.

Since our audit, Metrolinx is now using a risk-transfer agreement, also known as “drop-down,” which is incorporated into the request-for-proposal (RFP) notice issued to potential bidders. Per Metrolinx, this drop-down agreement transfers to the winning bidder for the Hurontario AFP contract as much responsibility for delivering light rail vehicles as is commercially feasible. In such an agreement, bidders agree to assume the relationship with the vehicle supplier and commit to providing the owner (in this case, Metrolinx) with a finished system with the vehicles fully integrated by the completion date. The RFP was formally amended in March 2018, incorporating the assumption that a drop-down process would be used. Two proponents submitted pricing for delivery, operations and maintenance of a line with working Alstom vehicles, including assumption of any risk involved in integrating these vehicles. The Project Agreement with the winning bidder, Mobilinx, was executed in October 2019.

- *work with the Toronto Transit Commission to manage the cost of operating two types of vehicles on its light rail transit lines.*

  Status: In the process of being implemented by December 2020.

Details

During our 2018 audit, we noted that the Alstom vehicle procurement meant that the TTC would have to operate two types of vehicles on its LRTs—Bombardier on the Eglinton Crosstown and Alstom on Finch West. The TTC had not yet determined what additional costs would result from this. Its operational costs could increase as a result of having to run two different training programs and maintaining two different pools of operators.

Since our audit, Metrolinx has worked with the TTC as the Eglinton Crosstown LRT has moved closer to its commissioning phase. At the time of our follow-up, discussions and drafting were ongoing between Metrolinx and the City of Toronto/TTC on a draft operating agreement, which includes the two types of vehicles for the Eglinton Crosstown and Finch West lines, building on existing agreements on cost-sharing between the City and the province. Metrolinx expects to complete the work on the operating agreement in December 2020.