

**Date:** 2022-02-28

**Subject:** **Brampton Transit – Canada Infrastructure Bank**

**Secondary Title:** Requesting Brampton City Council authority to proceed, subject to the conditions outlined in this report having successfully been met, with execution of the required agreements with the Canada Infrastructure Bank (CIB) and the Region of Peel to facilitate the financing arrangement of the up to \$400 Million credit facility with CIB.

**Contact:** **Alex Milojevic, General Manager, Transit**  
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**Report Number:** Brampton Transit-2022-241

**Recommendations:**

1. That the report from Alex Milojevic, General Manager, Transit, dated February 28, 2022, to the Committee of Council Meeting of March 9, 2022, re: **Brampton Transit – Canada Infrastructure Bank** (Report Number: Brampton Transit-2022-241, IB.c), be received; and,
2. That Council approves the credit facility arrangement with the Canada Infrastructure Bank (CIB) for financing of Zero Emission Buses (ZEBs) in the amount of up to \$400 Million between January 1, 2022 and December 31, 2027; and,
3. That operating savings realized as a result of fleet conversion to ZEBs are utilized to fund the City repayments of borrowing through the credit facility arrangement up until 2044; and,
4. That such approval is subject to a number of prerequisite conditions described in this report being met prior to execution of the required agreements including, but not limited to, the endorsement and approval of Regional Council; and,
5. That the General Manager, Transit, or designate, be delegated the authority on behalf of the City to execute all required agreements, addendums, documents, reports, and any other correspondence that may be required in connection therewith on terms and conditions satisfactory to the General Manager, Transit, or designate and Treasurer in a form acceptable to the City Solicitor that are deemed

necessary to reach financial close and administer the ongoing credit facility with the Canada Infrastructure Bank (CIB) and Region of Peel, established between CIB, Brampton, and Peel; and,

6. That the General Manager, Transit, and Treasurer be directed to report back to Council annually during the budget process (or more frequently as may be required), beginning with the 2023 budget, with the requested CIB financing amounts and corresponding funding requirements; and,
7. That the Treasurer be authorized to establish a Reserve as per the requirements of this agreement to facilitate borrowing requirements; and,
8. That staff be authorized to begin procurement for 10 battery electric ZEBs, as per the approved 2022 Operating Budget, project #224690-004 – Battery Electric Bus Purchases.

**Overview:**

- **The Canada Infrastructure Bank (CIB) is a federal Crown corporation with a mandate that includes catalyzing and accelerating the adoption of ZEBs across Canada.**
- **The CIB is working collaboratively with the Government of Canada, through Infrastructure Canada’s Zero Emission Transit Fund (ZETF), to provide co-financing of eligible ZETF funded projects.**
- **Capital funding Expressions of Interest and Applications administered through the ZETF, for example the purchase of ZEBs, are being conditionally prioritized to ensure CIB financing is considered for viable projects.**
- **Further to Council’s approval on February 17, 2021, staff executed a Memorandum of Understanding (MOU) on July 6, 2021, which provides for certain non-binding terms to frame negotiations related to transit electrification financing opportunities pertaining to the acquisition of ZEBs.**
- **This CIB financing opportunity is desirable for the City given the low interest rate (of 1%) and extended repayment term (15-years) for each round of financing discharged by CIB to the City.**
- **Also further to Council’s approval, on December 8, 2021, staff executed an Addendum to the aforementioned MOU under the CIB’s “Project Acceleration Initiative”, whereby the CIB has agreed to advance the City of Brampton up to \$2 Million in eligible expenditures required to reach financial close of a Credit Agreement with the CIB. This includes development costs to the City of Brampton and Region of Peel associated with external legal advice and report preparation.**

- Under the terms of the Project Acceleration Initiative, the CIB will add these external development costs to the City's credit facility to be repaid over the term of the loan.
- In December, 2021, the Government of Ontario enacted legislative revisions to the Municipal Act, which has enabled Ontario upper-tier municipalities to enter into conditional credit facility agreements for long-term borrowing for capital purposes with the CIB in support of lower-tier municipalities' pursuit of transitioning to ZEBs.
- As a result, and upon concurrence of legal counsels, there will be three (3) agreements required to reach financial close with the CIB. These agreements are described in greater detail in this report but are as follows:
  - Credit Agreement (CIB:Region of Peel)
  - ZEB Performance Agreement (CIB:City of Brampton)
  - Funding Agreement (Region of Peel:City of Brampton)
- Through a rigorous due diligence process managed by the CIB and their technical advisors (Wood) in partnership with Brampton and our technical advisors (CUTRIC), both parties have substantially agreed on the key technical variables and assumptions that feed into the cost savings regime established by CIB's program.
- Staff require and are seeking City Council's resolution of delegated authority for the General Manager, Transit, or designate, to execute the required agreements, addendums, documents, reports, along with any other correspondence that may be required between CIB, Brampton, and Peel in the course of this financial arrangement with CIB/Peel.
- Execution of financial close with CIB is subject to a number of prerequisite conditions that must first be met, which include:
  - Full completion of the technical due diligence process to the satisfaction of the CIB and Brampton signaled by the inclusion of these variables into the appropriate agreement(s) with CIB; and,
  - Legal Counsel concurrence by all parties signaled by the ratification of the required agreements (CIB, Region of Peel, and City of Brampton); and,
  - Agreement to proceed from the Treasurer and City Solicitor as signaled by their approvals to content and form, respectively, within the required agreements between the CIB, Brampton, Peel, as may be applicable; and,
  - Approval by Peel Regional Council to execute the required agreements in support of the City of Brampton's financing arrangement with CIB; and,
  - Final debt sizing with CIB, which shall not exceed the previously announced \$400 Million of financing, but may be less than that amount if the technical variables agreed upon by CIB and

**Brampton result in lower forecasted savings and in turn lesser financing.**

- **As it is desirable for the CIB to reach financial close on this transaction by their 2021 fiscal year end on March 31, 2022. All parties continue to work collaboratively and in good faith to complete this undertaking in that timeframe, if practically possible.**
- **Region of Peel intends to seek the necessary approvals from Peel Regional Council on March 24, 2022, required to support the execution of Agreements 1 and 3 noted above.**

**Financial Implications:**

- **The CIB credit facility of up to \$400 million is determined through an agreed upon financial model, which forecasts savings through the operation of a ZEB versus a conventional GHG emitting diesel bus. These operating budget savings are the funding source for loan repayments, thus ensuring no net financial impact to the City.**
- **The CIB is charging the City an interest rate of 1% on funding accessed through the credit facility, which is favorable to available market rates for comparable borrowing arrangements.**
- **As the City accesses funds through this credit facility over the 6-year period, the forecasted savings per bus are monitored and compared to the deemed (actual) savings per bus throughout the useful life of the asset. The deemed savings per bus are utilized to make loan payments.**
- **The City will be required to continue budgeting for the operating costs of conventional diesel buses throughout the period of this agreement up until 2044, for each bus that is converted to electric.**
- **Subsequent to the completion of any loans after the 15-year period, the operating budget savings is recommended to be converted to a capital funding source to replace the assets purchased through this agreement.**
- **The 2022 Approved Budget includes \$15 million to purchase ten 12m (40ft) electric buses, with an incremental cost of \$6.8 million versus diesel buses.**
- **This report recommends that staff be authorized to execute the CIB credit facility agreement and access \$6.8 million, as per the 2022 approved budget.**
- **In order to access additional funds through the CIB credit facility over the 6-year period, staff will request funding through the annual budget process or budget amendment reports, as required.**

## **Background:**

The purpose of this report is as follows:

1. Provide an updated status regarding progression of the CIB Credit Agreement related to transit electrification, specifically around the procurement of up to 450 ZEBs (battery electric) between now and the end of 2027; and,
2. Request Council approval for a delegation of authority to the General Manager, Transit, or designate, to execute the required agreements with CIB and Peel Region as deemed required in order to reach financial close and maintain the ongoing multi-year financing arrangement with the CIB and Peel; and,
3. Highlight the key operating and capital budget impacts associated with this financial transaction.

### *CIB Financial Vehicle Legal Arrangement - Key Highlights:*

#### **The fundamental premise of this legal arrangement is as follows:**

- ZEBs (battery electric) are anticipated to be less costly to maintain and operate with lower fuel costs on an on-going basis over the life of the buses when compared to conventional GHG-emitting diesel (GHG) buses.
- Under this financing vehicle, The City of Brampton will take those savings and use them as the source of repayment for the credit facility with the CIB providing funds through the Region of Peel to the City to cover the higher upfront purchase price of a ZEB compared to a GHG bus.
- CIB has offered the City a very competitive and attractive interest rate (1%) to finance the increased costs difference between the GHG and ZEB (battery electric) over an extended term of 15-years for each financing draw. This credit facility acts as a non-revolving line of credit that is only used as amounts are drawn over time. The Region of Peel will act as a silent partner in these transactions providing the legislative conduit for the funds transfer.

## **Current Situation:**

### *Transit Electrification in Canada*

To support the federal government's emission reduction targets and electrification of public transit and school bus mandates the CIB and Infrastructure Canada (INFC) Zero Emission Transit Fund (ZETF<sup>1</sup>) are working collaboratively to finance and fund, respectively, the electrification requirements for public transit in Canada.

### *Financial Arrangement with CIB*

As previously reported to Council, and noting the points above, the CIB deal is centered on:

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<sup>1</sup> <https://www.infrastructure.gc.ca/zero-emissions-trans-zero-emissions/index-eng.html>

- CIB financing the purchase price differential (incremental cost) between a GHG bus and ZEBs through a non-revolving credit facility (repayable credit facility), at a market-competitive, preferential interest rate of 1%.
- Brampton will repay the principal and interest of the credit facility with the forecasted annual fuel and maintenance savings associated with operating the ZEBs, making this arrangement as close to financially neutral for the City as possible.
- The CIB and Transit staff have jointly identified an opportunity to procure as many as 450 ZEBs by the end of 2027, through 4 key undertakings:
  1. Memorandum of Understanding and Term Sheet (CIB:Brampton), executed in July 2021.
  2. Credit Agreement (CIB:Peel)
  3. Zero Emission Buses (ZEB) Performance Agreement (CIB:Brampton)
  4. Funding Agreement (Peel:Brampton),
- The Agreements would commence subject to City and Regional Council approvals of the respective staff recommendations, as early as by March 31, 2022, and would continue for a 6-year period, concluding with buses ordered by December 31, 2027 (to be in service in 2028/29).

*Unique Benefits:*

In addition to the use of anticipated future operating expenditures savings being used to repay the credit facility, the arrangement has unique fundamental advantages to the City, including:

1. **The interest rate of 1%:** The interest rate on the credit facility CIB will provide to the City of Brampton is 1%. This compares favourably to available market rates for comparable borrowing arrangements.
2. **Risk Sharing:** External experts have analyzed Brampton Transit historical data and have made estimates of forecasted savings which are incorporated in the deal and have been assumed as the funding mechanism for repayment. A team of City staff from Finance/Legal/Transit have reviewed the inputs and consider them to be reasonable based on information available today. Since these estimates will cover the 15-year useful life of the buses and covers buses ordered between now and December 31, 2027, the overall term of the credit facility is about 21 years. If the deemed (actual) savings are not sufficient to fully repay the credit facility with interest, and Brampton Transit has done what is practical to minimize costs/maximize vehicle reliability, then the City is only required to pay back what has actually been saved. The shortfall will be absorbed by the CIB. If Brampton Transit saves more over the term of the credit facility and fully repays the principal plus the 1% interest, any excess savings will remain with the City. This risk sharing between CIB and the City is a unique risk mitigation feature that would not be available under a traditional loan arrangement.

3. **Up to \$400 Million:** CIB Board of Directors has approved the financing arrangement with the City for up to \$400 million which will be available to the City to cover the higher purchase price of up to 450 ZEBs (battery electric). Without this financing arrangement, the City has no other obvious comparably priced source of financing at this time other than higher cost debt financing or potential federal/provincial infrastructure programs (e.g. ZETF, ICIP). Should any new federal and/or provincial funding programs become available targeting ZEBs the CIB arrangement does not preclude or restrict the City from pursuing and obtaining such ZEB funding. The CIB's financing program has been purpose built to coexist with other government funding programs.
4. **Commit as you go:** While the City will have up to \$400 million available to utilize under the terms of this credit facility arrangement with CIB, credit facility amounts will be committed on an annual basis (or more frequently as may be required by the City) as Brampton Transit purchases ZEBs between now and the end of 2027. To utilize the full \$400 million would require the purchase of up to 450 ZEBs and that is the goal. For example, if Brampton Transit for whatever reason is only able to purchase 350 ZEBs, then the credit facility amounts associated with those purchases would set the total credit facility amount.

*Risks:*

This deal will essentially replace the City's existing diesel fuel risk with a new electricity supply risk. The unique partnership with CIB allows the City to share in this risk with a federal crown corporation.

While this financing vehicle has many advantages, staff and external counsel have worked through the details to mitigate risk as much as possible through this deal. Given the 15-year term, it is difficult to predict over that long time horizon with any level of certainty but external experts and staff have completed an in-depth sensitivity analysis for the diesel and electricity pricing baselines. CIB and staff are in agreement that our decisions are based on the best information we have at hand today. However, there are still items City Council needs to be aware of. The key risks associated are:

1. **The Price of Electricity:** The deal incorporates electricity pricing estimates over the term of the credit facility. The estimates have two components: (i) the quantity of electricity needed to run service and (ii) the actual price per kWh. As previously mentioned, the estimates incorporated are based on the best information known and as forecasted by the external experts. They are reasonably conservative estimates. If Brampton Transit ends up using a higher quantity of electricity than forecasted, that would result in lower savings to be available to repay the credit facility and the CIB bears that risk. Should the actual price of electricity exceed those estimates, the City would have to cover those incremental costs (those owed to the CIB as per the financial model versus the City's actual invoiced hydro costs). This is a similar situation that the City is currently with the 17-million litres of diesel fuel that Brampton Transit currently uses annually. All price fluctuations up or down in the price of diesel fuel are covered by the City.

2. **The cost of the base bus:** Future ZEBs still need the base bus funding in addition to this incremental financing. For example, if a ZEB bus costs \$1.4 million and a GHG bus costs \$700,000, this CIB loan would cover \$700,000 and the City would still need to cover the other \$700,000 in order to be able to place a ZEB bus order. Traditionally, federal/provincial/municipal infrastructure agreements such as the Investing in Canada Infrastructure Program (ICIP) have been the source of funding for transit buses in Canada. Those traditional infrastructure programs are still needed over and above the CIB financing vehicle. In August 2021, INFC announced details regarding the new ZETF, which has been designed to provide up to 50% of the capital costs associated with ZEBs, associated electrical infrastructure, and up to 80% of related planning efforts.
3. **In-Depot vs. On-Street Chargers:** Brampton Transit staff are working with external experts on how best to charge battery electric ZEBs. There are basically two ways:

- a) In-depot or within the transit maintenance facility. In-depot charging provides more time to charge, can be done at a lower and at a less costly rate, mostly out of the peak period (e.g. overnight). A typical in-depot battery electric ZEB takes about 3-4 hours, at a lower power rating (between 150-300kWh) and overall charge time will depend on the power level, battery capacity, and state of charge when beginning.
- b) Opportunity or on-street electric chargers such as those located at Mount Pleasant Village Terminal or Queen Street and Highway 50. These stations charge the battery electric ZEBs while in service. On-street charging uses a higher rate of charge (450kWh) and is more costly as it is also usually done during peak periods when time of use electricity rates are higher. A typical charge takes about 7-10 minutes, again depending on the power level, battery capacity, and state of charge when beginning.

For these reasons, in-depot charging is preferred and will be employed as much as is practical. However, fully charged battery electric ZEBs can run in the order of 300 kilometers before they need to be re-charged. Brampton Transit runs much of its service with buses exceeding this 300 km charged distance.

Possible solutions for this issue are: (i) charging battery electric ZEBs between peak periods when they return to the depot and that will be done as much as possible, and/or (ii) using opportunity (on-street) chargers where required or (iii) using hydrogen fuel cell electric ZEBs.

All of these are being closely examined for incorporation into the Third Transit Maintenance Facility and for retrofitting the existing Sandalwood and Clark facilities to handle the ZEBs. This detailed level of analysis is included as part of the City's Zero Emission Bus Implementation Strategy and Rollout Plan study being undertaken this year.

4. **Power to the Facility:** Precisely how to have power at the maintenance facilities is a very complex issue covering things such as how much power supply is required and when, on-site energy storage, redundant back-up power in case of



blackouts, on-site power co-generation, micro-grids, how quickly and how much buses are charged (fully or partially), etc. Each of these will have significant capital and operating cost implications and are currently under study.

### *Current Status of Negotiations – Agreement in Principle*

- CIB, Brampton, Peel staff have reached agreement in principle regarding the structure, legal agreements, roles and responsibilities.
- Subject to Council approval of the recommendations contained within this report, staff will proceed with the execution of the required agreements, provided the following prerequisite conditions have been met to the satisfaction of the General Manager, Transit, or designate:
  - Full completion of the technical due diligence process to the satisfaction of the CIB and Brampton signaled by the inclusion of these variables into the appropriate agreement(s) with CIB; and,
  - Legal Counsel concurrence by all parties signaled by the ratification of the required agreements (CIB, Region of Peel, and City of Brampton); and,
  - Agreement to proceed from the Treasurer and City Solicitor as signaled by their approvals to content and form, respectively, within the required agreements between the CIB, Brampton, Peel, as may be applicable; and,
  - Approval by Peel Regional Council to execute the required agreements in support of the City of Brampton’s financing arrangement with CIB; and,
  - Final debt sizing with CIB, which shall not exceed the previously announced \$400 Million of financing, but may be less than that amount if the technical variables agreed upon by CIB and Brampton result in lower forecasted savings and in turn a lesser financing limit.

### Other Considerations

#### *Resourcing requirements*

Given the overall magnitude of the conversion of the transit fleet from existing conventional diesel and diesel-electric hybrid buses to a full ZEB fleet, along with all of the required new electrical infrastructure and retrofits to our existing Clark and Sandalwood Facilities, there is a need to build a team that will focus on Transit’s overall electrification program. This CIB deal is a strong indicator of progression, and this staffing requirement will be brought back to Council as a budget amendment.

#### *Future Potential Opportunities for Energy Services*

- Future potential opportunities exist for the City in pursuing a partnership with a third party energy services provider.
- Potential opportunities to lock in rates in step with our forecast.
- Provisioning for design, build, finance, operate, maintain (DBFOM model) of on-street and facility related electrification infrastructure.
- Guaranteed service uptime and redundancies.
- Smart charging, energy storage provisions to further reduce costs.

- Staff are currently exploring these options.

## **Corporate Implications:**

### *Collaboration with Region of Peel*

The Province of Ontario requires for upper-tier municipalities to secure long term financing on behalf of lower-tier municipalities, which are not permitted to raise long term financing pursuant to the terms of the Municipal Act, 2001 (Ontario).

On December 10, 2021, Reg. 653/05 (Debt-Related Financial Instruments and Financial Agreements) under the Municipal Act, 2001 (Ontario) was amended to enable Ontario upper-tier municipalities to enter into conditional credit facility agreements for long-term borrowing for capital purposes with the Canada Infrastructure Bank (“CIB”), a federal Crown corporation with a mandate that includes catalyzing and accelerating the adoption of ZEBs across Canada.

Region of Peel staff have agreed in principle, subject to Regional Council approval, to support Brampton in its transition to ZEBs and facilitate the borrowing requirement with CIB for this deal.

### *Agreements*

In order to facilitate this unique and complex financing arrangement it has been mutually determined by CIB, Brampton, and Peel that there will be three separate agreements required to support the CIB:Brampton ZEB credit facility:

#### 1. Credit Agreement (Executors: CIB and Peel)

- Peel staff have agreed in principle, subject to Regional Council approval, to obtain financing from the CIB pursuant to the terms of a Credit Agreement between CIB and Peel.
- Peel will act as a conduit within this transaction to facilitate the credit facility. Brampton remains fully responsible for all the obligations to pay CIB.
- This agreement sets forth terms by which all of the proceeds will flow from CIB to Peel to provide to Brampton in accordance with the terms of the Credit Agreement.
- Brampton has agreed to use such proceeds solely for the purposes specified in, and in accordance with, the ZEB Performance Agreement.

#### 2. ZEB Performance Agreement (Executors: CIB and Brampton)

- This agreement sets forth the technical variables, assumptions, and overall risk allocation as agreed to by CIB and Brampton and our respective technical experts and advisors.
- Binds the requirements of the Credit Agreement and Funding Agreement to the City.
- Stipulates the repayment obligations, reporting requirements, and expected operating parameters for the City in operation of the BEBs.

- The ZEB Performance Agreement and the Credit Agreement together form a traditional credit arrangement but were separated to reflect the two-tier municipal structure for Brampton and the Region.

3. Funding Agreement (Executors: Peel and Brampton)

- Peel and Brampton staff have agreed in principle, subject to Council and Regional Council approvals, to enter into a Funding Agreement to outline the process through which Advances will be requested under the Credit Agreement and provided by the Region to Brampton.
- The Funding Agreement will also define the process through which Brampton will provide the Region with the funding required to allow the Region to satisfy its payment obligations back to CIB in respect of each tranche under the Credit Agreement.
- It is envisioned CIB funds would be coordinated to flow quarterly, semi-annually, or annually as required by Brampton's procurement schedules.

Financial Implications:

The CIB credit facility of up to \$400 million is determined through an agreed upon financial model, which projects savings through the operation of battery electric ZEBs compared to conventional diesel buses. These operating budget savings are the funding source for loan repayments, thus ensuring no net financial impact to the City.

The CIB is charging the City an interest rate of 1% on funding accessed through the credit facility, which is favorable to available market rates for comparable borrowing arrangements.

As the City accesses funds through this credit facility over the 6-year period, the forecasted savings per bus are monitored and compared to the deemed (actual) savings per bus throughout the useful life of the asset. The deemed (actual) savings per bus savings are utilized to make loan payments.

The City will be required to continue budgeting for the operating costs of diesel buses throughout the period of this agreement up until 2044, for each converted ZEB.

Subsequent to the completion of any loans after the 15-year period, the operating budget savings is recommended to be converted to a capital funding source to replace the assets purchased through this agreement.

The 2022 Approved Budget includes \$15 million to purchase ten 12m (40ft) battery electric ZEBs, with an incremental cost of \$6.8 million vs conventional diesel buses.

This report recommends that staff be authorized to execute the required agreements with the CIB and Region of Peel and access \$6.8 million from CIB, as per the 2022 approved budget. In addition, the Treasurer will be required to establish a Reserve as per the requirements of this agreement to facilitate borrowing repayments.

In order to access additional funds through the CIB credit facility over the 6-year period, staff will request funding through the annual budget process or budget amendment reports, as required, subject to Council approval.

#### Legal Implications:

Internal Legal Services have engaged Torys as external counsel for this transaction. Through their advice, the agreement structure has been recommended and reviewed to ensure compliance with all existing laws, notably a legislative structure which prevents lower tier municipalities from directly obtaining loans.

Legal Services will review and approve as to form the required Agreements and any other documents for which delegated authority is given by Council.

#### Purchasing Implications:

A public Procurement Process will be conducted and the Bid submissions shall be evaluated in accordance with the published evaluation process within the bid document. Purchase approval shall be obtained in accordance with the Purchasing By-law.

All communication with Bidders involved in the procurement must occur formally, through the contact person identified in the Bid Document.

#### **Term of Council Priorities:**

Pursuing opportunities, like the CIB financing program, moves Brampton one-step closer to a green and sustainable transit fleet. This work supports the Brampton 2040 Vision and the 2019-2022 Term of Council Priorities, which established commitments to improve transit, implement a green framework for sustainable growth, and lead in environmental innovation. It also builds on Council's Climate Emergency declaration in support of building a Green City, and helps to achieve the goals established by the Government of Canada including the ultimate goal of becoming net zero emissions by 2050. Additionally, the federal government has recently reinforced their 2019 mandate to committing to help municipalities and school boards purchase 5,000 zero-emission buses in the next five years and, that beginning in 2023 any new federal investments in public transit are used to support zero-emission buses.

#### **Conclusion:**

In conclusion, this report seeks delegation of authority approval from Council to execute the required Agreements and any other related documents with the CIB and Region of Peel as may be required for the purposes of reaching financial close with the CIB in the coming weeks as outlined in this report and subject to certain prerequisite conditions being met as described herein.

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