CIB BIC

# Zero-Emission Buses Initiative

May 2022

# Zero-Emission Buses: Challenge and Opportunity

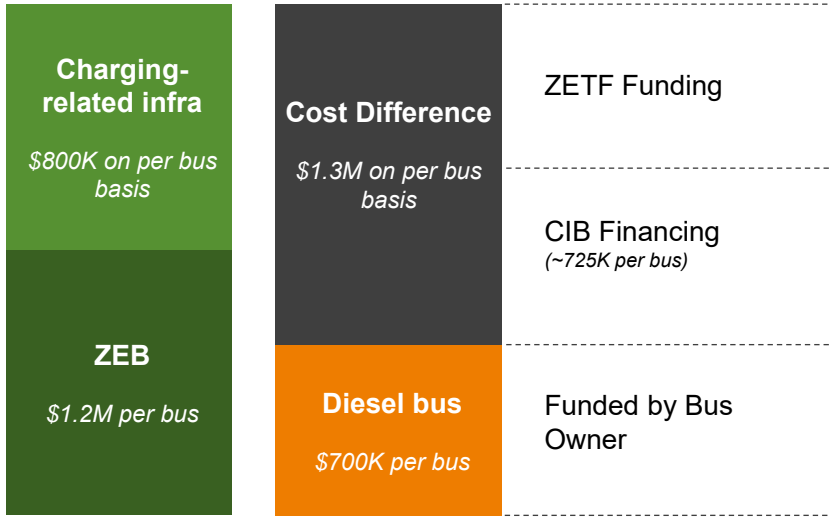
- Diesel buses are significant greenhouse gas contributors across Canada, and zero-emission buses (ZEBs) are an alternative to both improve transit and make a transition to low-carbon infrastructure
- CIB's initiative to accelerate the adoption of at least 5,000 ZEBs, comprising of a mix a transit and school buses
- Bus Owners, including transit and school bus operators, can take advantage of CIB's financing to modernize their bus fleets on an accelerated basis
- CIB's financing, in the form of direct loans, can cover the higher upfront capital costs of ZEBs and charging infrastructure versus diesel buses
- Repayment of CIB's loans under the initiative are sourced solely from actual savings generated by the lower cost of operating ZEBs compared to the higher cost of operating diesel buses
- CIB's initiative is offered in coordination with Infrastructure Canada's Zero Emission Transit Fund grant program

# CIB's Financing

- The upfront cost of a ZEB is higher than the cost of a diesel bus
  - ZEBs themselves are more expensive, largely due to the battery
  - ZEBs require charging infrastructure, whereas diesel buses do not
- Bus Owners typically do not have existing funding sufficient to cover these higher upfront costs, making it difficult to adopt ZEBs on a large scale
- However, ZEBs are expected to generate significant operational savings versus diesel buses from lower fuel and maintenance costs
- The CIB's initiative provides financing based on that expected level of savings
  - If a ZEB is expected to cost $100 less to operate over its life as compared to a diesel bus, the CIB can provide upfront financing of $75 based on those expected savings, with the Bus Owner benefiting from the remaining $25

# Sizing CIB's Financing

- CIB's support may not be sufficient for larger implementations with significant additional charging-related infrastructure requirements, so INFC's ZETF can also support those programs with grant funding
- While the CIB and INFC each maintain separate authorities, they work closely together to administer their complimentary programs
- Collectively, the CIB and INFC can help Bus Owners bridge their funding gap and accelerate the deployment of ZEBs

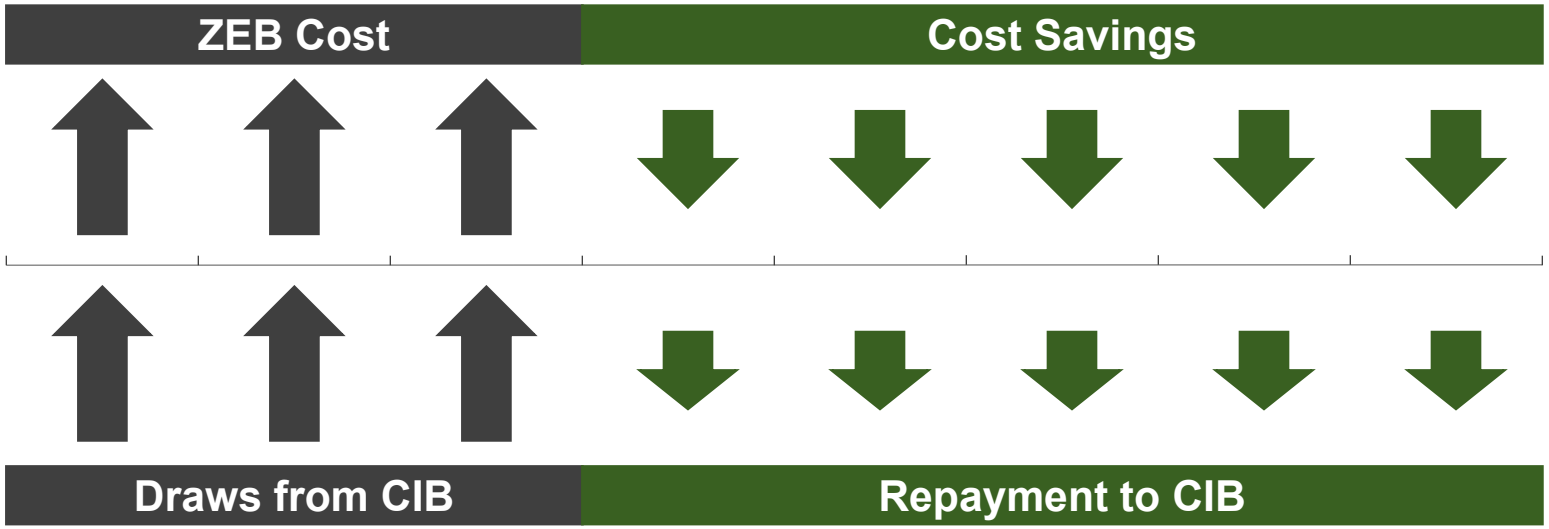



***Indicative Example – 200 Transit ZEB Fleet***

| CIB Financing | Bus Owner | ZETF Funding |
|---|---|---|
| **$145 million** | **$140 million** | **$115 million** |

# Availability and Term

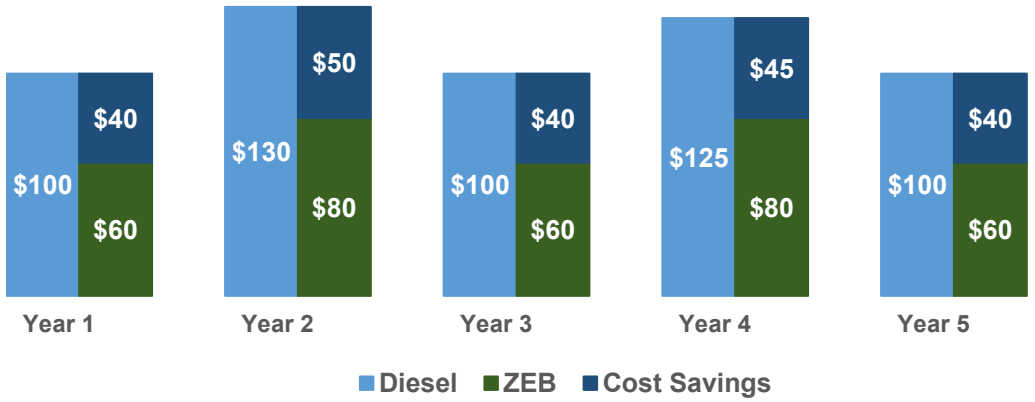
- The CIB will work with the Bus Owner to agree on a multi-year ZEBs and charging infrastructure implementation schedule
- The CIB financing would be available for multiple draws over the implementation period
  - Once committed, further approval for draws would not be needed (provided conditions are met)
- The CIB financing is repayable only from cost savings of ZEBs vs diesel buses over the term of the financing, which will be agreed considering the expected lifespan of the ZEBs



# Cost Savings and Repayment

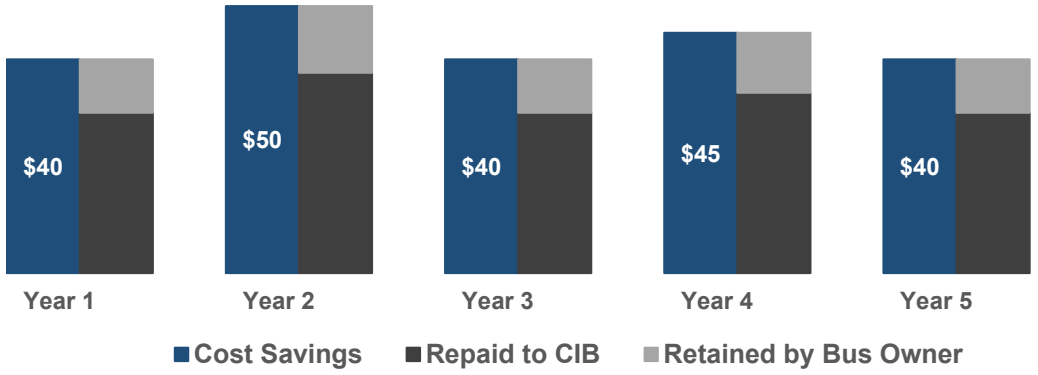
## Cost Savings Generated by ZEBs

- ZEBs are expected to have lower operating costs (i.e., fuel and maintenance) than diesel buses
- The resulting cost savings are the sole source of funds that Bus Owners will be required to use to repay the CIB



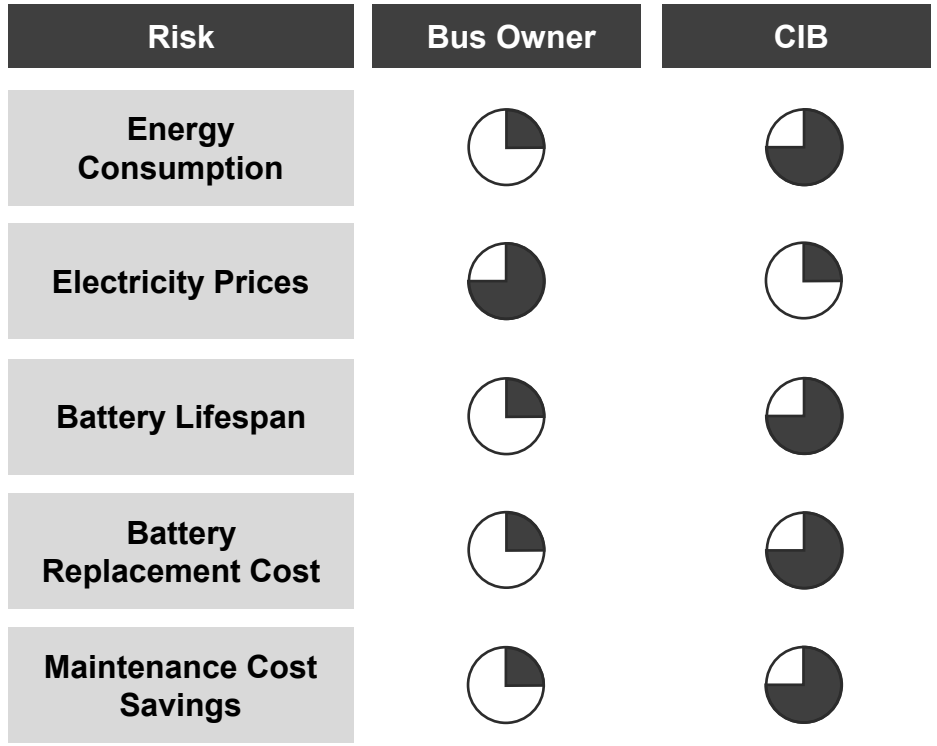

## Repayment

- Cost savings will be shared by the CIB and Bus Owners on a fixed proportion
- The CIB and Bus Owners will share in the risk that actual cost savings are less than forecast, with the CIB ultimately taking the repayment risk



# Indicative Risk Allocation

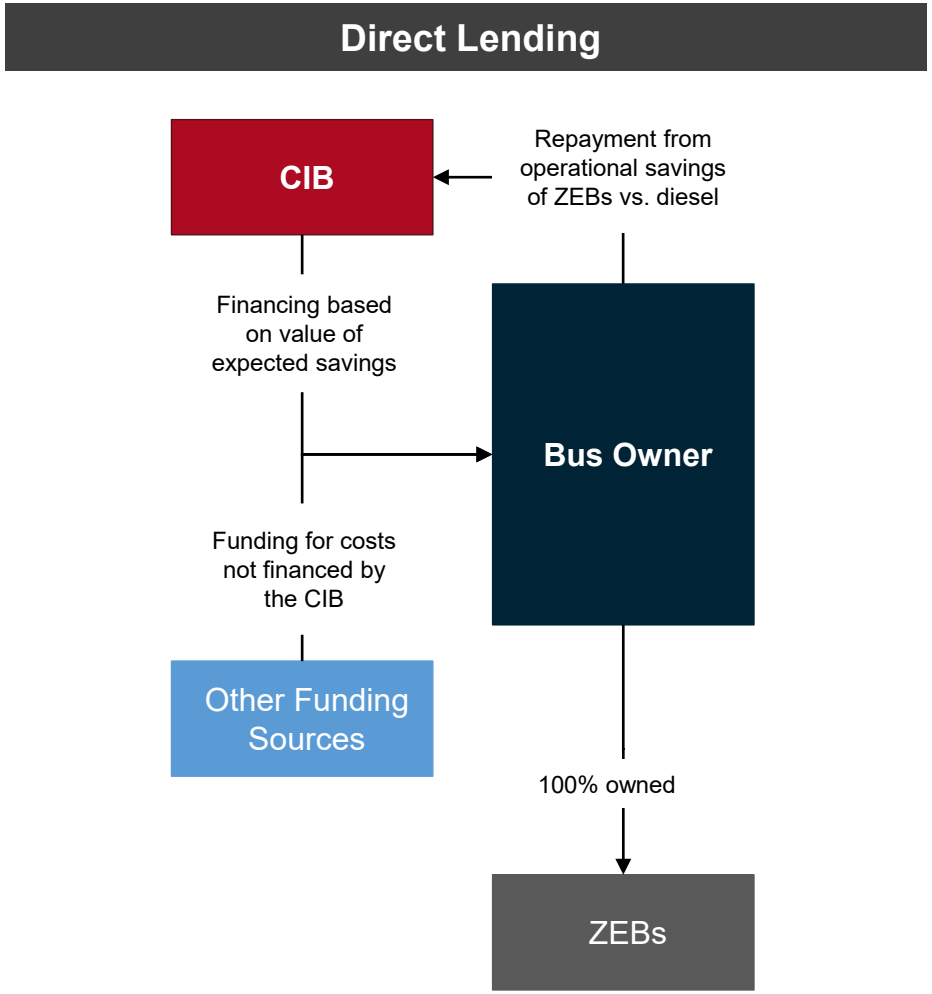
- The Bus Owner's repayment obligation is the **lower** of:
  a) An agreed percentage (%) of forecasted savings, and
  b) Actual savings
- The Bus Owner takes the risk of **retaining savings** greater than the agreed % of the forecasted amount
- The CIB takes the risk of **getting repaid** by the ZEBs achieving the base agreed % of the forecasted amount
- The CIB and the Bus Owner can work to implement energy price fluctuation mitigation strategies, but actual savings will be calculated as actual electricity used times a set electricity price



# Key Terms for Financing ZEBs and Related Infrastructure

| Key Term | Description |
|---|---|
| **Term of CIB Financing** | Up to ~19 years, which includes an availability period of up to 4 years plus the useful life of the ZEBs (typically up to 15 years) |
| **Interest Rate of CIB Financing** | Below market interest rate |
| **Source of Repayment for CIB Financing** | Operational savings generated by ZEBs vs. diesel; lower of a percentage of forecasted savings and actual savings |
| **Other non-CIB Funding** | Bus Owner to secure funding for all costs required for implementation of the proposed ZEB fleet that are not financed via the CIB |
| **Ownership of ZEBs** | ZEBs and charging infrastructure to be wholly owned by Bus Owner / Bus Operator |
| **Procurement and Implementation** | Bus Owner is responsible for the procurement and implementation of the proposed ZEB fleet and required charging infrastructure |

# Potential Structures



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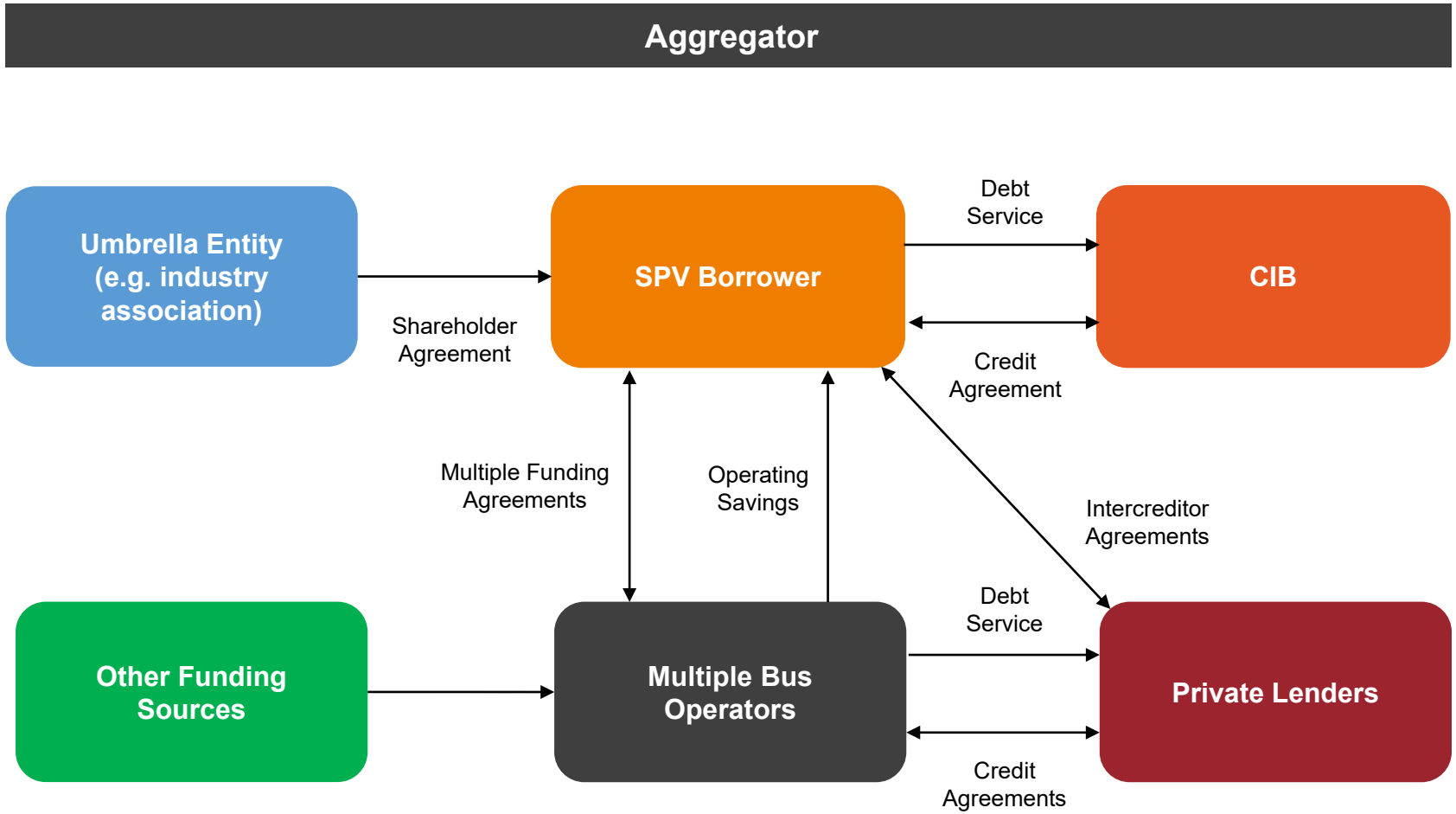

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# Thank you

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