Charging and Hydrogen Refuelling Infrastructure Initiative

September 2022
The federal government is seeking to accelerate the adoption of zero-emission vehicles ("ZEVs") to help reduce greenhouse gas emissions from Canada’s transportation sector.

The lack of public charging and refuelling infrastructure is a key barrier to ZEV adoption. To address this, the federal government committed to adding **50,000 new ZEV chargers and hydrogen stations across Canada** in the short term.

As of August 2022 there were ~22,000 public chargers and 6 hydrogen refuelling stations installed in Canada. The graph outlines the estimated public charging ports needed for Canada from 2025 to 2050.

![Forecasted Public Charging Infrastructure Needs](chart.png)

The CIB’s Charging and Hydrogen Refuelling Infrastructure (“CHRI”) initiative was created to invest **$500 million** in large-scale ZEV charging and hydrogen refuelling infrastructure across Canada.
## CHRI Initiative Objectives

| Reduce greenhouse gas emissions | ▪ Accelerate adoption of ZEVs and reduce greenhouse gas emissions by helping to address the current lack of charging and refuelling infrastructure across Canada |
| Transform the market            | ▪ The $500 million investment alongside private capital will help establish charging and refuelling infrastructure as an investable asset class and catalyze more private investment |
| Support economic and social co-benefits | ▪ Contribute to the broader federal goal of implementing 50,000 new ZEV chargers and hydrogen refuelling stations across Canada  
▪ Support large-scale implementations by private sector players and allow other government financing to be used for projects with the greatest need  
▪ NRCan and the CIB will coordinate funding and financing approaches to increase the availability of public charging infrastructure in underserved areas |
CHRI Initiative Approach

- The private sector is hesitant to make significant investments in charging and refuelling infrastructure due to uncertainty in ZEV adoption rates, which translates to uncertainty in infrastructure utilization. Under CHRI, the **CIB will share in utilization risk by aligning principal repayments with utilization levels**. If utilization does not reach certain agreed levels, then required principal repayments will be proportionally lower.

- In consideration for sharing utilization risk, the CIB will benefit from **upside participation** in the form of increased interest rates in circumstances where utilization levels exceed expectations. As utilization increases, the CIB’s return will increase proportionally with interest rate step-ups at predetermined target utilization levels.

- The CIB is seeking to deploy $500 million as soon as practicable and financing will include several features to **incentivize earlier** and **wider implementation** of charging and refuelling infrastructure.
The CIB can offer attractive terms to private sector borrowers to incentivize early investment in charging and refuelling infrastructure, including:

- **Credit facility structure** – After financial close, borrowers will have access to CIB financing to support their implementations as needed in real time, with no commitment fees on undrawn amounts.

- **More financing for earlier implementation** – Borrowers will be able to access more CIB financing for infrastructure that is operational earlier, e.g. chargers installed in the first 2 years can receive CIB financing for 80% of capital costs, 65% for 3rd year and 50% for 4th year.

- **Repayment grace period** – Repayment will not commence until the full portfolio is implemented and operational for an agreed grace period, allowing reasonable ramp-up without cashflow pressure.

- **Concessionary pricing** – The CIB financing will be priced at concessionary interest rates similar to the government’s cost of borrowing as the baseline, subject to actual utilization.

- **Payments track actual utilization** – Once principal repayments commence, the payment amounts will track actual utilization, so borrowers will only repay to the extent the infrastructure is generating sufficient revenues; as utilization increases, the CIB interest rate will step up.

- **Charger performance incentives** – Borrowers will be required to maintain minimum uptimes for chargers and any shortfalls will result in deemed utilization and therefore impact repayment obligations.
Federal Integration

- NRCan has been providing contribution funding through the Zero-Emission Vehicle Infrastructure Program ("ZEVIP") since 2019 and was allocated an additional $400 million in Budget 2022.

- NRCan and the CIB will coordinate federal funding and financing approaches under ZEVIP and CHRI to maximize the effectiveness of the federal government's contribution.

- ZEVIP and CHRI (along with other related federal programs) will be accessed through a single federal window. Implementation proposals that satisfy the following criteria will be directed to the CIB for consideration:
  - large-scale implementations (e.g. multiple locations with total capital costs >$10 million)
  - delivered by private sector proponents
  - with directly associated revenue generation

- Implementations supported by the CIB will remain eligible for NRCan funding to the extent required for the project to remain commercially viable. The CIB's collaboration with NRCan will also ensure that contribution funding is directed to projects with the greatest need.
# Appendix A: Key Investment Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CIB Product</strong></td>
<td>▪ Credit facility with equity-like features (the “Facility”) to be used to cover a portion of eligible capital costs for the implementation of large-scale charging/refuelling infrastructure portfolios</td>
</tr>
<tr>
<td><strong>Borrower</strong></td>
<td>▪ Private sector charging network developers, owners, operators and investors and hydrogen refuelling developers, or project finance special purpose vehicles owned by those parties</td>
</tr>
</tbody>
</table>
| **Sizing**        | ▪ Minimum $[10M] Facility size  
▪ Facility sizing is based on:  
  ▪ the year of implementation (earlier receives higher CIB contribution)  
  ▪ location (underserved locations receive higher CIB contribution)  
▪ Up to a maximum CIB contribution of **80%** of total eligible project costs net of grant funding, as follows:                                                                                              |
|                   | ![Table](https://example.com/table.png)                                                                                                        |
|                   | ▪ Facility sizing will be further limited by:  
  ▪ applying a target equity return to confirm (a) that the CIB is not over-funding, and (b) any need for grant funding support from NRCan, and  
  ▪ minimum annual Debt Service Coverage Ratio of [1.25x] based on forecasted utilization to ensure that there is adequate baseline revenue for repayment                                                                                                                                 |

<table>
<thead>
<tr>
<th>Implementation Year/Location</th>
<th>Years 1-2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Underserved Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum % of Eligible Costs financed by the CIB</td>
<td>80%</td>
<td>65%</td>
<td>50%</td>
<td>80%</td>
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## Key Investment Terms (continued)

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| **Availability & Drawdowns** | ▪ Facility will be available to be drawn at Financial Close until the earlier of:  
▪ full delivery of the implementation plan; and  
▪ an outside date to be agreed, but not exceeding [4] years following Financial Close (the "Availability Period")  
▪ Drawdowns will be based on the applicable percentage of CIB contribution applied to incurred and/or forecasted eligible costs for each period, which will be verified by the CIB’s technical advisor and reconciled the following period based on actual costs |
| **Pricing**                | ▪ Base interest rate set at [20]-year Government of Canada bond yield at Financial Close, with step-ups based on achieving target portfolio utilization levels (e.g. 200 bps increase at [●]% utilization, plus an additional 200 bps at [●]% utilization) |
| **Term**                  | ▪ Maximum [18] years, including the Availability Period, depending on the projected useful life of the chargers and subject to extension at the CIB’s election if the Facility is not fully repaid by the end of the term |
| **Repayment**             | ▪ All variables other than actual capital costs and actual utilization will be set in the financial model at Financial Close; actual capital costs will determine draws and actual utilization will determine required repayment amounts  
▪ Interest will be paid in kind (PIK) until [1] year after the end of the Availability Period, at which time a sculpted repayment schedule will be set to the end of the term based on the actual Facility amount outstanding and forecasted utilization  
▪ Principal repayments will be based on actual utilization, so repayment amounts will decrease to the extent actual utilization is below the forecasted baseline  
▪ Unpaid amounts will accumulate as arrears and be repaid to the extent utilization increases above the baseline in subsequent periods  
▪ If overall portfolio utilization does not support repayment over the term, the Borrower will not be required to fully repay the Facility (subject to the CIB’s ability to extend the term, typical lender protections and repayment for any real property assets)  
▪ Early repayment by the Borrower will be permitted |
## Key Investment Terms (continued)

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<tr>
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</table>
| **Security** | ▪ Corporate loan: unsecured except for reserve accounts and any land purchased using loan proceeds  
▪ Project finance: typical security (e.g. all assets, contracts and equity interests in the Borrower) plus security for equity contributions |
| **Reserves** | ▪ Borrowers will be required to fund: (i) a 6-month Debt Service Reserve Account, and (ii) a Lifecycle Reserve Account to support renewal of all charging stations, on a forward-looking basis as set out in the financial model |
| **Other**    | ▪ The Facility will include an agreed minimum level of uptime for all chargers; any deficiencies in uptime will result in deemed utilization to the extent of the shortfall  
▪ Conditions precedent, reporting requirements, representations and warranties, sources and uses of funds, change of control and default provisions typical of hybrid project finance and corporate facilities offered by the CIB. Relief events for the implementation phase (e.g. extending Availability Period for each tranche) and operations phase (e.g. relief from certain outages) will be considered  
▪ Negative covenant limiting the Borrower’s ability to increase charging rates [%] above actual electricity prices without CIB consent, to avoid circumstances where Borrowers are making significant returns with low utilization and yet avoid CIB repayment |
Appendix B: CHRI Initiative Process

Single Federal Window Intake
- The CIB and NRCan evaluate eligibility of proposed project for CIB financing and/or NRCan funding
  - If project meets CIB criteria:
    - Non-disclosure agreement
    - Investment due diligence checklist provided outlining next steps

Appraisal & Advisory
- Review of comprehensive business plan based on the investment due diligence checklist
- Assessment of key risk factors of the transaction
- Agreement on provisional suitability of CIB financing

Investment Structuring & Procurement
- Phase 1 due diligence process and red flag review with support from technical and legal advisors
- Negotiation of memorandum of understanding including investment term sheet

Final Diligence & Closing
- Phase 2 due diligence based on detailed review of business plan and supporting data
- Negotiation and documentation of agreements
- Parties gain requisite approvals to proceed
- Execution of required agreements

Funding, Monitoring & Exit
- Monthly/quarterly draws
- Borrower reports on capital costs incurred, project status, charger utilization and availability
- Repayment following implementation
Appendix C: Sizing Metrics

CIB Facility sizing will be based on:

1. **When chargers are implemented after Financial Close**
   - For example, the CIB will finance up to 80% of eligible capital costs for chargers implemented within 2 years after Financial Close, 65% in year 3 and 50% in year 4

2. **Where chargers are implemented**
   - The CIB will finance up to 80% of eligible capital costs for chargers that are implemented in “underserved” areas for all years of the Availability Period

3. **Target equity IRR** based on benchmarked market returns and forecasted utilization

4. **Minimum annual DSCR** of [1.25x] modelled at Financial Close to ensure that there is adequate baseline revenues to support repayment

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<td>80%</td>
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</tbody>
</table>

### Financing Example

- **Capex ($M)**
  - Year 1: $5
  - Year 2: $6
  - Year 3: $13
  - Year 4: $22

- **Availability Period**
  - Year 1: $20
  - Year 2: $25
  - Year 3: $24
  - Year 4: $22

- **New chargers installed**
  - Year 1: 200
  - Year 2: 250
  - Year 3: 300
  - Year 4: 350

- **CIB financing**
- **Equity funding**
- **New chargers installed**
Appendix D: Facility Structure

- The Facility structure includes a mix of project finance and corporate debt features, with variable payments based on actual utilization.
- The financial model will be locked in at Financial Close, similar to project financings, and will include forecasts for capital costs, utilization rates, pricing, revenue, operations, maintenance and land access costs, and target equity IRR. The Borrower and the CIB will agree to a forecast utilization curve that generates sufficient revenue to cover Facility repayments, fund reserve accounts, sustain interest rate step-ups and ultimately provide reasonable equity returns.
- During implementation, the Borrower will only be able to use the Facility to cover a portion of actual eligible capital costs, like in project financings. At the end of the Availability Period, the amount drawn plus PIK’ed interest will be locked in as the Facility size.
- During operations, the Borrower will report on actual utilization (subject to charger availability). All other factors (pricing, revenue, operations, maintenance and land access costs, equity IRR) will be fixed at the rates and amounts agreed at Financial Close. Actual cashflows will be “deemed” based on actual utilization, which will determine CIB repayment amounts, funding of reserve accounts and interest rate step-ups.
- Any actual monetization of carbon credits will also impact repayment.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Fixed at Financial Close</th>
<th>Actuals for CIB repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital costs</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Operating costs</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Pricing</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Major maintenance</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Utilization rates</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Carbon Pricing</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Appendix E: Sharing Utilization Risk

- During the repayment period (following the PIK End Date), the Borrower will pay interest and principal based on a sculpted repayment schedule to the end of the term. The repayment schedule will be sculpted based on cash flows using a forecasted utilization curve.

- If actual utilization is below the forecasted baseline utilization in a given period, the principal repayment amount will decrease proportionally, with shortfalls accumulating for potential repayment in future periods if utilization exceeds the baseline.

- Revenues from any carbon monetization will be factored in as additional revenue available for repayment.

- To the extent overall actual portfolio utilization does not support repayment over the term, the Borrower will not be required to fully repay the Facility (subject to the CIB’s ability to extend the term, typical lender protections and repayment for any real property assets).
Thank you

Contact us at investments@cib-bic.ca
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