



Ontario Teachers' Finance Trust

External Review of Green Bond Report 2023

12 July 2023

Shades of Green has reviewed Ontario Teachers' Finance Trust's ("OTFT") Green Bond Report 2023 ("Report"). We review assets in OTFT's portfolio of eligible green assets within its green bond register ("Portfolio") against Ontario Teachers' Pension Plan's Green Bond Framework (dated November 2020, the "Framework")¹ criteria, and impact metrics for relevance and transparency.

We consider that the assets in the Portfolio align with the Framework and that the Report utilizes relevant and sufficiently transparent impact metrics. The assets added to the Portfolio since last year's Green Bond Report correspond to Dark Green project categories. Moreover, we consider the Report aligns with the core principles and recommendations contained in ICMA's Handbook – Harmonized Framework for Impact Reporting (June 2023).²

Asset allocation

OTFT has issued three green bonds under the Framework. The first, issued in November 2020, has a value of EUR 750 million (circa CAD 1.16 billion); the second, issued in November 2021, has a value of EUR 500 million (circa CAD 710 million); and the third, issued in November 2022, has a value of CAD 1 billion. Use of proceeds are reported as of 31 December 2022 (though excluding the asset that was removed from the Portfolio between this date and the publication of the Report), with the Portfolio consisting of eligible green assets totaling circa CAD 7 billion.

The eligible green assets added to the Portfolio since last year's Green Bond Report are one electricity transmission company and four renewable energy producers/developers/assets. Two assets have been removed from the Portfolio. We find no discrepancies between these investments and the Framework. For a detailed review of these eligible green assets, see Table 1.³

The Framework was assigned an overall Dark Green in our Second Party Opinion, though proceeds could be used to finance expenditures of all Shades of Green.⁴ Overall, OTFT has allocated green bond proceeds to:

- Ten eligible green assets in the Dark Green renewable energy category (investments in (i) three electricity transmission and/or distribution companies, (ii) six renewable energy producers/developers/assets, and (iii) one energy storage company),
- One eligible green asset in the Medium Green energy efficiency category (investment in a smart metering and environmental efficiency consulting company), and
- One eligible green asset in the Dark Green climate change adaptation category (investment in a desalination plant).

¹ Ontario Teachers' Pension Plan ("OTPP") guarantees OTFT's issuances, and OTFT has adopted OTPP's Green Bond Framework.

² [ICMA Handbook](#)

³ For a detailed review of eligible green assets included in the Portfolio at the time of the last Green Bond Report (2021), see our previous Reporting Reviews: [OTFT - Reporting Review \(2021\)](#), [OTFT - Reporting Review \(2022\)](#)

⁴ [OTPP – Second Party Opinion \(SPO\)](#)



Impact metrics

OTFT reports impacts for 2022 on an asset category level and reflecting OTPP's ownership as of 31 December 2022 (though excluding the asset that was removed from the Portfolio between this date and the publication of the Report). It pro-rates impact according to the proportion of the Portfolio financed via proceeds under the Framework.

In respect of impacts, Shades of Green considers that, on the whole, the Report utilizes relevant and transparent metrics. The Report includes at least one relevant indicator for each asset category and each company reports on at least one indicator. Note that the transmission company included in the Portfolio since the last Green Bond Report reports on total energy transmitted, rather than renewable energy transmitted. In respect of transparency, OTFT includes certain relevant information on the methodologies and metrics applied, and provides transparency on the use of ex post and ex ante calculations. Each company undertakes its own calculations and there is not therefore uniformity of measurement or methodology.

Terms

Shades of Green, now a part of S&P Global and formerly part of CICERO, provides a review of OTFT's annual reporting based on documentation provided by OTFT and OTPP and information gathered during teleconferences and e-mail correspondence with OTFT and OTPP. OTFT and OTPP are solely responsible for providing accurate information. All financial aspects of the sustainable finance reporting - including the financial performance of the bond and the value of any investments in the bond - are outside of our scope, as are general governance issues such as corruption and misuse of funds. Shades of Green does not validate nor certify the existence of investments and does not validate nor certify the climate effects of investments. Our objective has been to provide an assessment of the extent to which the bond has met the allocation and reporting criteria established in OTPP's Green Bond framework. The review is intended to inform OTFT and OTPP management, investors and other interested stakeholders in the OTFT green bond and has been made based on the information provided to us. Shades of Green cannot be held liable if estimates, findings, opinions or conclusions are incorrect. Our review does not follow verification or assurance standards and we can therefore not provide assurance that the information presented does not contain material discrepancies.



Appendix 1 - Detailed review of eligible green assets included in the Portfolio since OTFT's last Green Bond Report

Category	Description	Review against framework criteria	Impact Metrics	Relevance of metrics	Transparency considerations
Renewable Energy	<p>1) Investment in electricity transmission company</p> <p>2) Investments in renewable energy developers/producers/assets</p>	<p>No discrepancies identified</p> <p><u>1) Electricity transmission company</u></p> <ul style="list-style-type: none"> A well-functioning grid network is a prerequisite for increased electrification. OTFT demonstrated consideration of grid emissions factor (average <100gCO₂/kWh over a five-year period) in selection process. OTFT demonstrated consideration of issues such as physical climate resilience and biodiversity impacts in the selection process. <p><u>2) Investments in renewable energy producers/developers/assets</u></p> <ul style="list-style-type: none"> Three of the investments relate to solar and/or wind power while the fourth is an investment in a platform designed to invest in construction of green hydrogen projects. In each case, OTFT demonstrated consideration of material risks and impacts in the selection process. 	<ul style="list-style-type: none"> GWh of renewable energy generated and/or transmitted per annum. MWh total battery usable energy generation capacity. Avoided GHG emissions (tCO₂eq) 	<ul style="list-style-type: none"> Metrics are relevant provide a good indication of impacts. Generation and avoided emissions are listed as core indicators in the ICMA Handbook – Harmonized Framework for Impact Reporting. 	<ul style="list-style-type: none"> Impacts can be ex ante or ex post. The transmission company included in the Portfolio since the last Green Bond Report reports on total energy transmitted, rather than renewable energy transmitted. Going forward, OTFT could consider reporting on the capacity of renewable energy plants served by transmission networks.



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- The first green hydrogen project will exclusively supply a third-party owned power plant facility, which will blend up to 30% of green hydrogen with natural gas. This gives rise to lock-in risks, which OTFT considered in the project selection process, with the power plants aiming to use 100% green hydrogen by 2045.
 - The green hydrogen is produced using electricity linked to renewable power sources.
 - While green hydrogen is seen as an important energy source in a 2050 future, uncertainty remains around the climatic and environmental impacts of hydrogen leakage.⁵
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⁵ E.g. [Hauglustaine et al \(2022\)](#).