Ontario Teachers' Finance Trust
External Review of 2021 Green Bond Reporting

November 1, 2021

CICERO Green has reviewed Ontario Teachers' Finance Trust's (OTFT) 2021 Green Bond Report. Ontario Teachers' Pension Plan (OTPP) is OTFT's guarantor, and OTFT has adopted OTPP's Green Bond Framework. We review asset allocation against green bond framework criteria and impact metrics for relevance and transparency.

CICERO Green considers OTFT's Green Bond Report to align with OTPP'S Green Bond Framework, but notes a minor inconsistency with a statement made by OTPP during the preparation of our Second Opinion in respect of its Green Bond Framework. Then, OTPP noted that any investments in energy storage would be for renewables only, however we understand from OTFT that the energy storage companies to which it has allocated proceeds may, in instances where they do not store 100% renewables, store electricity from the grid which is partly generated through fossil fuel. We note, however, that energy storage has an important role to play in the increased integration of renewable energy into the energy mix (even though it does not in itself guarantee cleaner grids). OTFT has also informed us that in considering these investments, it was guided by the EU Taxonomy where storage of electricity likely qualifies despite some of the electricity being generated through fossil fuels.

CICERO Green considers OTFT's Green Bond Report to align with the ICMA Handbook, Harmonized Framework for Impact Reporting. In particular, OTFT's use of actual ex-post results increases transparency, especially given its use of commonly used indicators.

Asset allocation

In 2020, OTFT issued the inaugural green bond under OTPP's Green Bond Framework. This bond has a value of €750,000,000 (CAD 1,162,125,000).[1] Use of proceeds are reported as of December 31, 2020 and June 30, 2021 and OTFT states that Eligible Green Assets have been fully allocated to cover an amount equal to the net proceeds of the green bond. OTFT notes that in the future it expects to align reporting with its and OTPP's fiscal year ending December 31.

In its Green Bond Framework, OTPP committed to disclosing on the portfolio of Eligible Green Assets financed under the framework, including (1) assets by ICMA Green Bond Principles category, (2) assets by geography where feasible, (3) case studies on assets that are being financed. OTFT's Green Bond Report satisfies these commitments.

We assigned an overall shading of Dark Green to OTPP's Green Bond Framework in our Second Opinion dated November 6, 2020.[2] Investments financed under OTPP's Green Bond Framework could encompass all Shades of Green (please see the full Second Opinion for a detailed review). In the Second Opinion it was noted that OTPP expected the majority of investments to be in the categories of renewable energy, natural resources and land use, and energy efficiency, with a small share in sustainable water and wastewater management.

[1] Calculated at the foreign exchange rate at the trade date (25 November 2020).
[2] https://pub.cicero.oslo.no/cicero-xmlui/bitstream/handle/11250/2720329/OTPP2020.pdf

OTFT has allocated green bond proceeds to four Eligible Green Assets in the Dark Green renewable energy category (namely allocation of proceeds to (i) an electricity distribution company, (ii) a renewable energy producer and operator, and (iii) two energy storage companies). Proceeds have also been allocated to 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). The Green Bond Report does not, however, include information on the precise proportion or amount of the green bond that has been allocated to each category.

CICERO Green finds no discrepancies in our review of OTFT's Green Bond Report against OTPP's Green Bond Framework, but notes a minor inconsistency with a statement made by OTPP during the preparation of our Second Opinion in respect of its Green Bond Framework. Then, OTPP noted that any investments in energy storage would be for renewables only, however we understand from OTFT that the energy storage companies to which it has allocated proceeds may, in instances where they do not store 100% renewables, store electricity from the grid which is partly generated through fossil fuel. We note, however, that energy storage has an important role to play in the increased integration of renewable energy into the energy mix (even though it does not in itself guarantee cleaner grids). Furthermore, the value of these investments is less than 3% of OTPP's portfolio of Eligible Green Assets and less than 7% of the value of the green bond. OTFT has also informed us that in considering these investments, it was guided by the EU Taxonomy where storage of electricity likely qualifies despite some of the electricity being generated through fossil fuels.

Under OTPP's Green Bond Framework, Eligible Green Assets were defined as investments in businesses that align with OTPP's Green Investment Principles and derive all, or substantially all of their revenue from eligible activities. OTPP informed us during the preparation of our Second Opinion that investments would focus on pure play companies or companies where all or significantly all of the business is in Eligible Green Assets. According to OTFT, it undertook extensive financial due diligence prior to the allocation of proceeds to ensure compliance with this criterion, centered around a detailed review of the portfolio company's financial statements. Only one investment was considered by OTFT to have less than 100% of revenues from Eligible Green Assets (where around 6% of revenues derive from activities that are not eligible under - but do not contravene - the Green Bond Framework).

OTFT has confirmed that the selection process for allocations of proceeds from the green bond was undertaken as described in its Green Bond Framework.

Impact metrics

OTFT's Green Bond Report reports impacts calculated for the year 2020 on an asset category level. The report shows impacts reflecting OTPP's ownership at two different dates: as of December 31, 2020 and as of June 30, 2021. As such, the impact figures as of June 30, 2021 contain the impacts for the year 2020 of allocations made after December 31, 2020. OTFT also pro-rates impact figures for June 30, 2021 according to the proportion of investments derived from the green bond issuance, thereby giving the impacts attributable to green bond investors.

Impact reporting for all asset categories includes at least one relevant and commonly used indicator. OTFT notes in its Green Bond Report that not all companies within an asset category report on all indicators included for that asset category. Each company, however, reports on at least one indicator. Core indicators in the ICMA Handbook, Harmonized Framework for Impact Reporting are included.[3] The inclusion of metrics commonly used for green bond reporting allows investors to better compare across issuances in the same sectors. Investors should, however,

[3] https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Handbook-Harmonised-Framework-for-Impact-Reporting-June-2021-100621.pdf

use caution when making these comparisons as methodologies, assumptions and baselines are typically not uniform.

OTFT includes certain relevant information on the methodologies and metrics applied. Investors should note, however, that each portfolio company undertakes its own calculations and uniformity of measurement or methodology cannot therefore be guaranteed. OTFT states that avoided greenhouse gas emissions are calculated using country-specific emission factors obtained from the International Energy Agency (IEA) and the International Institute for Sustainability Analysis and Strategy (IINAS).

OTFT has confirmed that no investments have been removed from the portfolio.

Principles for impact reporting

CICERO Green reviews the impact report against the ICMA Handbook, Harmonized Framework for Impact Reporting (the Handbook). In our opinion, the Handbook's recommendations are not all easily applied to a portfolio of equity investments such as those made under OTPP's Green Bond Framework. To the extent the Handbook can be applied, we find OTFT's Green Bond Report to follow its recommendations. By way of examples, OTFT reports impacts using a limited number of indicators contained in the Handbook. Given all companies were operational during 2020, OTFT reports actual results, which increases transparency. OTFT has confirmed that the selection process was undertaken as described in OTPP's Green Bond Framework and also discloses that all Eligible Green Assets have been fully allocated to cover an amount equal to the net proceeds of the green bond.

Terms

CICERO Shades of Green 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. CICERO 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 the 2020 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. CICERO 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.

Detailed Review

Category	Description	Review against framework criteria	Impact Metrics	Relevance of metrics	Transparency considerations
Renewable Energy	1) Investment in electricity distribution company 2) Investment in owner and operator of wind, concentrated solar, photovoltaic solar and transmission projects 3) Investment in two energy storage companies	**No discrepancies identified** <u>1) Electricity distribution company</u> • OTFT considers 100% of revenues to derive from eligible activities. • The company supports the integration of renewable energy into the grid e.g. connecting small-scale renewable energy producers to the grid and its online marketplace where consumers can buy solar panels. This aligns with the criteria in OTPP's framework that proceeds in this category are allocated to 'equipment to enable the generation, development, and integration of renewables'. • A well-functioning grid network is a prerequisite for increased electrification. According to OTFT, in 2020 the company carried 12% of renewable electricity in its country of operation. • OTFT assessed the company's approach to climate resilience (e.g. burying of cabling to increase protection from extreme weather), its	• GWh of renewable energy generated and/or transmitted per annum. • tCO_2e avoided annually. • MWh total battery usable energy generation capacity (OTFT has confirmed this is installed capacity at 31 December 2020).	✓ Metrics provide a good indication of investment impact. ✓ GWh of renewable energy generated and/or transmitted per annum and tCO_2e avoided annually are commonly used in green bond reporting and are in line with core indicators in the ICMA Handbook.	✓ Impacts of the electricity distribution company are only attributed to OTFT in its calculation of impacts as of June 30, 2020, given this investment occurred in 2021. ✓ Country-specific emission factors used to calculate tCO_2e avoided provided by the International Energy Agency (IEA). ✓ Ex post impacts. ✓ Each portfolio company undertakes its own calculations.

approach to recycling and re-use of materials, and its activities to promote renewable energies (e.g. commissioning the largest battery connected to the distribution network).

2) Renewable energy owner and operator

- OTFT considers 100% of revenues to derive from eligible activities.
- The company's concentrated solar power plants use natural gas for start-up and back-up power. OTFT notes that it considers 0.3% of the total energy produced by the company to have been generated as a result of this use of natural gas.
- OTFT considered the approach of the company to environmental matters e.g. its use of Global ESG Benchmark for Real Assets (GRESB) assessments and use as environmental and social impact assessments.

3) Energy storage companies

- We do find a minor inconsistency with a clarification given by OTPP during the preparation of our Second Opinion in respect of its Green Bond Framework. Then, OTPP noted that any investments in energy storage would be for renewables only. We

		understand from OTFT, however, that the energy storage companies to which it has allocated proceeds may, in instances where they do not store 100% renewables, store electricity from the grid which is partly generated through fossil fuels. OTFT has informed us that in considering these investments, it was guided by the EU Taxonomy. In considering the EU Taxonomy, OTFT confirmed it also considered the Do-No-Significant-Harm criteria, for example consideration of reuse and recycling at end of life. • OTFT considers 100% of revenues to derive from eligible activities. • Energy storage has an important role to play in the increased integration of renewable energy into the energy mix but does not in itself guarantee cleaner grids.			
Energy Efficiency	Investment in a smart metering and environmental efficiency consulting company	**No discrepancies identified** • OTFT considers this to be an eligible investment per its Green Bond Framework as 'substantially all' revenues derive from eligible activities (around 94%, with the remaining around 6% of revenues from activities that are not eligible under - but do not	• Annual energy savings (GWh). • tCO_2e avoided annually.	✓ Metrics provide a good indication of asset impact. ✓ All metrics are commonly used in green bond reporting. ✓ Indicators in line with core indicators in the ICMA Handbook.	✓ Ex post impacts. ✓ Country-specific emission factors used to calculate tCO_2e avoided provided by the International Institute for Sustainability Analysis and Strategy. ✓ Each portfolio company undertakes its own calculations.

		contravene - the Green Bond Framework). • As smart metering is directed at end-users, it can lead to efficiency in fossil fuel-based equipment. This can lead to lock-in and rebound effects.			
Climate Change Adaptation	Investment in a desalination plant	**No discrepancies found** • OTFT considers 100% of revenues to derive from eligible activities. • The plant is in a region where high levels of water stress are expected in the near future. Under its license, the plant only operates when storage in the region's major dams falls below 60% and until they recover to 70%. • The plant runs on 100% renewable energy. This is welcome given the energy intensive nature of desalination. • In its selection process, OTFT noted the company has one of the most stringent marine environment monitoring programs in place and around one-third of land at the plant is kept as a conservation area.	• Annual water produced and treated (m^3)	✓ Metric provides a good indication of asset impact. ✓ The ICMA Handbook includes water availability as a climate-adaptation indicator.	✓ Ex post impacts. ✓ Each portfolio company undertakes its own calculations.

°CICERO Shades of Green

Appendix 1:
About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University, the International Institute for Sustainable Development (IISD) and the School for Environment and Sustainability (SEAS) at the University of Michigan.