

Second-Party Opinion

Royal Bank of Canada Sustainable Bond Framework



Evaluation Summary

Sustainalytics is of the opinion that the RBC Sustainable Bond Framework is credible and impactful, and aligns with the Sustainability Bond Guidelines 2018. This assessment is based on the following:



USE OF PROCEEDS The thirteen eligible green and social categories for the use of proceeds – (i) renewable energy, (ii) energy efficiency, (iii) pollution prevention and control, (iv) sustainable land use, (v) clean transportation, (vi) sustainable water and wastewater management, (vii) green buildings, (viii) climate adaptation and resilience, (ix) access to essential services, (x) affordable housing, (xi) indigenous communities and businesses, (xii) women-owned businesses and (xiii) leadership in diversity & inclusion – are aligned with those recognized by the Green Bond Principles 2018, the Social Bond Principles 2020, and the Sustainability Bond Guidelines 2018. Overall, the use of proceeds, will, in Sustainalytics’ opinion, have positive environmental or social impacts and advance a number of UN Sustainable Development Goals.



PROJECT EVALUATION / SELECTION RBC has established a Sustainable Bond Working Group to oversee the sustainable bond programme, which will be comprised of senior representatives from various departments, including Corporate Treasury, Capital Markets, Personal & Commercial Banking, and Sustainability. The Group will review the Sustainable Bond Asset Portfolios on a quarterly basis. In addition, RBC is a signatory to the Equator Principles. This is in line with market best practice.



MANAGEMENT OF PROCEEDS RBC will tag Eligible Assets in its existing information management systems. The Sustainable Bond Working Group will ensure that the portfolio balance meets or exceeds the amount of outstanding green, social and/or sustainability bonds. Unallocated proceeds will be held in money market instruments, as part of the Bank’s liquidity portfolio. This is in line with market practice.



REPORTING RBC will report annually, on any outstanding green, social and/or sustainability bonds, information regarding allocation and impacts. Allocation information will include amounts aggregated at the category level, while impact reporting will include key performance indicators at the category level. In Sustainalytics’ view, reporting on these metrics is in line with market practice.

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Issuer Location	Toronto, Canada

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For inquiries, contact the Sustainable Finance Solutions project team:

Zach Margolis (Toronto)

Project Manager
 zach.margolis@sustainalytics.com
 (+1) 647 695 4341

Tina Ghaemmaghami (Toronto)

Project Support
 tina.ghaemmaghami@sustainalytics.com
 (+1) 647 264 6680

Melissa Menzies (Toronto)

Client Relations
 susfinance.americas@sustainalytics.com
 (+1) 647 317 3678

Introduction

Royal Bank of Canada (“Royal Bank”, “RBC”, the “Issuer”, or the “Bank”) is a diversified financial services company, and the largest bank in Canada by market capitalization. Founded in 1864, Royal Bank serves 17 million clients in 36 countries, providing personal and commercial banking, insurance, wealth management, and investment products and services.

RBC has developed the RBC Sustainable Bond Framework (the “Framework”) under which it is planning to issue green, social and/or sustainability bonds and use the proceeds to finance or refinance, in whole or in part, loans to eligible companies or projects that provide environmental and social benefits.

The Framework defines eligible green categories in the following areas:

1. Renewable energy
2. Energy efficiency
3. Pollution prevention and control
4. Sustainable land use
5. Clean transportation
6. Sustainable water and wastewater management
7. Green buildings
8. Climate adaptation and resilience

The Framework defines eligible social categories in the following areas:

1. Access to essential services
2. Affordable housing
3. Indigenous communities & businesses
4. Women-owned businesses
5. Leadership in diversity & inclusion

This Framework builds upon the Bank’s 2019 Green Bond Framework; eligible green categories three through six are unchanged from this previous document, while categories one, two and seven have been modified, and category eight, along with the social categories, are new entries.

RBC engaged Sustainalytics to review the RBC Sustainable Bond Framework, dated June 2020, and provide a second-party opinion on the Framework’s environmental and social credentials and its alignment with the Sustainability Bond Guidelines 2018 (SBG).¹ This Framework will be published in a separate document.²

As part of this engagement, Sustainalytics held conversations with various members of RBC’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Bank’s Sustainable Bond Framework. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the RBC Sustainable Bond Framework and should be read in conjunction with that Framework.

¹ The Sustainability Bond Guidelines are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/sustainability-bond-guidelines-sbg/>

² The RBC Sustainable Bond Framework is available on RBC’s website at: rbc.com

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Royal Bank of Canada Sustainable Bond Framework

Sustainalytics is of the opinion that the Royal Bank of Canada Sustainable Bond Framework is credible and impactful, and aligns with the four core components of the Green Bond Principles 2018 and Social Bond Principles 2020. Sustainalytics highlights the following elements of RBC's Sustainable Bond Framework:

- Use of Proceeds:
 - The eight green and five social use of proceeds categories are aligned with those recognized by the GBP and the SBP.
 - In March 2019, RBC published the Royal Bank of Canada Green Bond Framework; Sustainalytics reviewed this document and opined positively on the use of proceeds which it contained. As five of these eight categories, Pollution Prevention and Control; Sustainable Land Use; Clean Transportation; and Sustainable Water and Wastewater Management remain unchanged in the Framework, Sustainalytics has not reassessed these categories. Please refer to the March 2019 Second-Party Opinion for Sustainalytics' opinion of the aforementioned eligible green categories.³
 - The Framework includes one new green category and three revised green categories.
 - The 'Renewable Energy' category includes the connection, transmission and distribution of eligible renewable energy generation sources that were previously assessed by Sustainalytics. The additional activities are in line with market practice.
 - 'Energy Efficiency' has been expanded to include smart grid investments. Sustainalytics notes that the Framework specifies that such investments must provide energy efficiency benefits in order to be eligible, and views this to be in line with market practice.
 - Regarding projects in the 'Green Buildings' category, Sustainalytics notes positively the additional requirement of energy savings of at least 20% over baseline energy consumption from retrofits.
 - Sustainalytics views positively the ambition of the Framework's Climate Adaption and Resiliency category, while noting that best practice will involve the selection of specific projects which have been identified by a robust assessment to be required for climate adaption and encouraging detailed reporting on the specific initiatives financed.
 - The Framework identifies five social categories: access to essential services; affordable housing; Indigenous communities & business; women-owned businesses and leadership in diversity & inclusion.
 - RBC's Access to Essential Services category allows for investments in infrastructure for i) public universities, schools, training centres; ii) public hospitals, medical equipment, homes or health facilities for aged or people with disabilities; iii) childcare centres, community centres, eldercare centres; and iv) rehabilitation of parks and other public spaces. Sustainalytics considers the four service areas to provide important social benefit, and views positively that the services in this category will be publicly available, free or subsidized, and thus accessible to the general public, including disadvantaged individuals.
 - Within the Affordable Housing category RBC may allocate proceeds to the development or refurbishment of housing that contributes to access for low-income residents, or that otherwise meets regulatory definitions of affordable housing for the local jurisdiction.⁴ Based on the reliance on official definitions, Sustainalytics views this category positively.
 - RBC's Indigenous Communities & Businesses category includes:
 - Lending to Indigenous Peoples' bands, councils, governments and/or business that are at least 51% owned and operated by such an organization or individual.
 - Financing the development or purchase of housing for indigenous communities, including on a First Nation reserve.

³ <https://www.sustainalytics.com/sustainable-finance/wp-content/uploads/2019/06/RBC-Green-Bond-Second-Party-Opinion.pdf>

⁴ For example, for projects in Canada, RBC may refer to the Canadian Mortgage and Housing Corporation's (CMHC) Investment in Affordable Housing programme, or its regional equivalents.

- Sustainalytics believes that the projects financed in this category will have a positive social impact by enhancing Indigenous Peoples' access to financing options that improve their economic and housing conditions.
 - RBC intends to provide loans to businesses where at least 51% is owned and operated by women through the Women-owned Businesses category. Sustainalytics believes that RBC's lending to women-owned businesses promotes gender equality in business leadership and female entrepreneurship in general.
 - RBC's Leadership in Diversity & Inclusion category considers lending to businesses that demonstrate meaningful advancements in the areas of diversity and inclusion. Sustainalytics views positively that businesses will be selected based on third party assessments and/or certifications and is of the opinion that these investments will have a net positive social impact, while noting the importance of ongoing reporting to provide reassurance on the benefits of this category
- Sustainalytics recognizes that the GBP and SBP require project-based lending and financing, and that there is, in general, less transparency with non-project-based lending. While RBC's framework includes project-based lending, it also provides for general corporate financing. By placing a quantitative threshold of 90% of revenue that a company must derive from eligible areas, Sustainalytics believes that RBC has ensured that proceeds from the green, social and/or sustainability bonds issued will be directed to environmental and/or social activities that generate positive impact.
- Sustainalytics views positively that the Framework specifically excludes financing for businesses whose principal industry relates to weapons, tobacco, gambling, adult entertainment, or predatory lending. Sustainalytics notes that there are no environmentally-focused exclusions, and that therefore eligible social assets could include lending to businesses whose activities are not aligned with broad sustainability goals such as the transition to a low-carbon economy, while recognizing that this does not necessarily detract from the positive social impacts achieved. Sustainalytics further notes that market expectation is to avoid allocating green, social, and/or sustainability bond proceeds to activities with major negative environmental impacts. RBC has disclosed in the Framework that upon issuance of any green, social, or sustainability Bond under the Framework, additional details pertaining to the objective of the bond, including intended benefits and eligible asset categories, may be disclosed. These disclosures may specify to which categories proceeds are directed or may further refine the qualifications for lending in certain eligible categories, without allowing for the inclusion of assets beyond the scope of the Framework.
- Asset Evaluation and Selection:
 - RBC will maintain a register of Eligible Assets, the Sustainable Bond Asset Portfolio, which will include separate pool of assets – social, green and sustainability. A Sustainable Bond Working Group has been established to oversee the RBC sustainable bond programme. The Group will be comprised of representatives from Corporate Treasury, Capital Markets, Personal & Commercial Banking (P&CB), and Sustainability Group, and will receive support from Group Risk Management when required. RBC's Capital Markets, P&CB and Sustainability Group will be responsible for evaluating potential Eligible Assets against applicable Eligible Categories. RBC's Sustainability Group is responsible for completing the final evaluation of all Eligible Assets. This process will take into consideration the net environmental and/or social benefits of each potential Eligible Asset. The Sustainable Bond Working Group will convene on a quarterly basis to review the Sustainable Bond Asset Portfolio and remove assets which no longer comply with the criteria.
 - Sustainalytics therefore considers RBC's project selection process to be aligned with market best practice.
- Management of Proceeds:
 - RBC will tag all assets in the Sustainable Bond Asset Portfolio as Eligible Assets within its information management systems, which tracks the Bank's credit exposure on an ongoing basis. The Sustainable Bond Working Group will ensure, on a quarterly basis, that the aggregate value of Eligible Assets in the portfolio meets or exceeds the amount raised by each of the applicable bonds. If there is a remaining unallocated balance, this amount will be held in cash or liquid securities in accordance with RBC's liquidity management policy.
 - Based on the use of a formalized tracking system and the disclosure of the intended management of unallocated proceeds this process is aligned with market practice.
- Reporting:
 - RBC will report annually until full allocation, on its website, information regarding allocation and impacts. Sustainalytics considers these reporting commitments to be in line with market practice.

- Allocation information will include the net proceeds raised from each green, social and/or sustainability bond, the amount directed to each of the eligible categories, a description of the types of projects funded, and the balance of unallocated funds.
- Impact reporting will include key performance indicators at the portfolio level, as well as additional details where feasible, subject to confidentiality agreements.

Alignment with Sustainability Bond Guidelines 2018

Sustainalytics has determined that the RBC's Sustainable Bond Framework aligns to the four core components of the Green Bond Principles 2018 and Social Bond Principles 2020. For detailed information please refer to Appendix 3: Sustainability Bond/ Sustainability Bond Programme External Review Form.

Section 2: Sustainability Performance of the Issuer

Contribution of Framework to RBC's sustainability strategy

RBC has published a Climate Blueprint⁵ which lays out the Company's priority business goal: supporting investments in sustainable companies and projects that are recognized as contributing to the low-carbon, sustainable economy of the future. Specifically, the Bank has set the target of providing CAD 100 billion in sustainable financing by 2025. In line with this goal, the document provides five key pillars as follows, each with associated commitments:

- Support clients in the low-carbon transition with our products, services and advice;
- Advance our capabilities in climate risk management and publish annual TCFD disclosures;
- Achieve net-zero carbon emissions in our global operations annually;
- Speak up for smart climate solutions;
- Invest in technology to address complex environmental challenges.

RBC provides annual progress updates on these objectives and highlights initiatives undertaken in order to continuing meeting them.^{6,7} In 2019, the Bank met approximately one quarter of its 2025 goal and contributed CAD 25.9 billion to sustainable financing activities, including underwriting green, social and sustainability bonds, raising capital for eligible clients and projects and extending credit to eligible clients and projects.⁸ RBC strives to take a leadership role with regards to the assessment and disclosure of climate-related risks and opportunities and in 2018 became the first Canadian bank to publish a stand-alone Climate Change Position & Disclosure Statement (the "Statement").⁹ In the Statement, the Bank affirms its support for the principles of the Paris Agreement, and recognizes the role that financial institutions can play in addressing climate change, through both their internal operations and provision of products and services. RBC was also a member of the 2017 United Nations Environment Programme - Finance Initiative (UNEP FI) led pilot project on implementing the recommendations of the Financial Stability Board's (FSB) Task Force on Climate Related Financial Disclosures (TCFD). Regarding its own operational goals, the Bank successfully achieved net-zero carbon emission in its global operations in 2018 through the purchase of 159,915 carbon offsets,¹⁰ and has since set the goal to reduce its absolute GHG emissions by 15% by 2023 and increase its sourcing of electricity from renewable and non-emitting sources to 90% in the same timeframe.¹¹ 2018 marked the first year the Bank included emissions from its Caribbean, Luxembourg and Malaysian operations in its calculations, allowing the Bank's reporting in both 2018 and 2019 to account for 99% of its operational footprint. The Bank has achieved many of the quantitative goals it set against a 2012 baseline earlier than scheduled, including reducing greenhouse gas emissions intensity by 20%, reducing paper use by 20%, and doubling the amount of LEED-certified office space occupied. In alignment with its fifth pillar, RBC launched the RBC Tech for Nature initiative – a multi-year commitment by the RBC Foundation to provide up to CAD 10 million annually to aid

⁵ Royal Bank of Canada, Climate Blueprint: http://www.rbc.com/community-sustainability/_assets-custom/pdf/RBC-Environmental-Blueprint.pdf

⁶ Royal Bank of Canada, Environmental, Social and Governance (ESG), Performance Report & Public Accountability Statement 2018:

https://www.rbc.com/community-social-impact/_assets-custom/pdf/2018-ESG-Report.PDF

⁷ Royal Bank of Canada, Environmental, Social and Governance (ESG), Performance Report 2019

⁸ Royal Bank of Canada, Environmental, Social and Governance (ESG), Performance Report 2019

⁹ RBC, FY2017 Climate Change, Position & Disclosure Statement: http://www.rbc.com/community-sustainability/_assets-custom/pdf/RBC_ClimateChangePosition_Disclosure_Statement_2017.pdf

¹⁰ Royal Bank of Canada, Environmental, Social and Governance (ESG), Performance Report & Public Accountability Statement 2018:

https://www.rbc.com/community-social-impact/_assets-custom/pdf/2018-ESG-Report.PDF

¹¹ Royal Bank of Canada, Environmental, Social and Governance (ESG), Performance Report 2019

universities and charities that are leveraging technological solutions to address complex climate change and related environmental issues.

In addition to its environmental commitments, the Bank has taken explicit steps to embed diversity and inclusion considerations within its sustainability strategy. In 2019, the Bank scored 87% on the Diversity and Inclusion Index,¹² representing a year-over-year increase since 2017. In the same year, the Bank expanded its supplier diversity program outside of Canada in order to promote inclusive supply chain opportunities for Indigenous Peoples, women, visible minority, LGBT+, disabled and veteran-owned businesses in both the U.S. and the U.K. The Bank also supports the provision of financial services for marginalized communities, such as Indigenous People, by offering access to services such as on-reserve branch and agency locations, as well as exposure to Indigenous commercial banking specialists and dedicated Indigenous trust and investment professionals. An example of the Bank's financing initiatives includes the RBC First Nations Capital Line, which helps build critical infrastructure that drives economic development, preparing future generations for viable living and working conditions.¹³

Sustainalytics is of the opinion that the issuance of green, social and sustainability bonds and the subsequent provision of loans to Eligible Assets and companies supports Royal Bank's Climate Blueprint and its overall sustainability strategy.

Well positioned to address common environmental and social risks associated with the projects

Sustainalytics recognizes that proceeds from RBC's Framework will be directed towards Eligible Assets that generally provide environmental and social benefits. However, by offering lending and financial services, banks are exposed to risks associated with controversial companies and/or projects they may finance, and as such, may inadvertently finance activities that have negative social or environmental impacts. These risks include, but are not limited to, pollution and impacts on biodiversity from construction, worker health and safety and impacts on local communities. To mitigate these risks, RBC has procedures in place to assess and address various risks, including:

- An Environmental and Social Risk Management (ESRM) process, which ensures that an appropriate level of due diligence is carried out.¹⁴ This process includes several policies that help identify, assess and mitigate potential environmental and social risks (E&S) associated with financing activities. While business segments and corporate functions are responsible for incorporating E&S risk management requirements in their own operations, the Bank's Group Risk Management department also has a dedicated E&S risk management team who are responsible for developing pathways to assessing and reporting on E&S risks.
- According to RBC, the due diligence requirements are informed by international best practices from organizations such as the IFC, Canadian Standards Association, and ASTM. In addition, enhanced due diligence is mandatory for clients operating in sectors that are considered medium or high environmental risk.¹⁵ This process involves an Environmental and Social Risk Review (ESRR), which is an assessment tool that aims to identify whether E&S issues are being managed and/or mitigated effectively.
- Commitment to the Equator Principles (EP), an international framework to identify and manage environmental and social risks.¹⁶ RBC reports annually on all project finance deals that meet the EP; the most recent report was completed in 2018.¹⁷ The Bank has been a signatory to this agreement since 2003, and was the first Canadian bank to do so. In line with its commitment to the EP, the level of E&S due diligence required depends on both the type and size of transaction as well as the potential environmental and social impacts of the projects. When a project is identified as high risk (Category A), the Bank engages multiple independent consultants who take into consideration legal due diligence, environmental and social due, as well as engineering/construction due diligence.

¹² RBC's Diversity and Inclusion Index score is a measure of fairness, openness, diversity support and flexibility as evidenced in employee responses to select items in the annual EOS, completed by >92% of the Bank's global workforce and administered by Willis Towers Watson.

¹³ RBC, A Chosen Journey, RBC Indigenous Partnership Report 2019: https://www.rbc.com/indigenous/_assets-custom/pdfs/Indigenous-Report-2019_E.pdf

¹⁴ RBC, Environmental and Social Risk Management: <http://www.rbc.com/community-sustainability/environment/responsible-financing.html>

¹⁵ Category II (medium environmental risk) sectors are generally light industrial sectors handling hazardous materials and some commercial operations that have significant environmental risk potential. Examples include dry cleaning, metal fabricating and gas stations. Category III (high environmental risk) is made up of most of the resource-based industries as well as some of the industrial sectors that handle highly toxic materials. The magnitude of the environmental risks involved in this sector is typically great, and assessing risk can be complex. Some examples include pulp and paper, chemicals, and petroleum refining.

¹⁶ RBC, RBC's Equator Principles Reporting: <http://www.rbc.com/community-sustainability/environment/equator-principles-projects-FY-2017.pdf>

¹⁷ Equator Principles, Reporting – Royal Bank of Canada (2017-2018): <https://equator-principles.com/reporting-royal-bank-of-canada-2017-2018/>

- An ongoing commitment to reviewing and updating risk management policies approximately every three years and reporting on this information. In fiscal year 2017, three policies were updated.¹⁸
- An ongoing commitment to review credit risk assessments from an E&S risk perspective. In 2018, 2,523 assessments were carried out in this manner.⁶
- RBC also obtains assurance from an independent auditor on an annual basis to ensure that select performance indicators reflected in its Environmental, Social and Governance (ESG) Performance Report & Public Accountability Statement are accurate and transparent. The most recent assurance engagement was conducted in February 2020.

Sustainalytics is of the opinion that RBC's internal processes and mechanisms to mitigate risks associated with its financing activities are in line with market practice, ensuring that the Bank is well-positioned to address common environmental and social risks.

Section 3: Impact of Use of Proceeds

All thirteen use of proceeds categories are recognized by the GBP 2018 and the SBP 2020. Sustainalytics has focused below on use of proceeds categories where the impact is specifically relevant in the local context.

The role of financial institutions in supporting a transition to a low-carbon economy

The financial sector is both particularly susceptible to climate change risk, and uniquely positioned to take actions which will have a positive impact.¹⁹ According to a report from the International Energy Agency, in order to achieve the 2°C trajectory envisioned by the Paris Agreement, the amount of annual investment in clean energy and energy efficiency must double from 2014 levels by 2020, reaching USD 790 billion, and increase almost six times by 2035.²⁰ The United Nations Environment Programme Finance Initiative (UNEP FI) states that "bank loans are the most important source of external finance for companies and will play a crucial role in steering businesses towards lower emission activities".²¹ RBC's own Climate Change Position Statement echoes these perspectives, affirming that the Bank "[w]ill have an important role to play in supporting an orderly and socially inclusive transition to a low carbon economy" and "seek to accelerate the flow of capital to clients engaged in efforts to mitigate and adapt to climate change, and to those providing products and services that enable others to do so".²²

The proceeds of the bonds issued under the Framework will be directed towards financing for companies and projects in a number of thematic areas, including renewable energy projects, energy efficiency improvements, clean transportation, green buildings, climate adaptation, and sustainable forestry. Sustainalytics is of the opinion that the use of proceeds will enable companies to develop projects that support the ongoing decarbonization of the economy.

Contribution to the achievement of national greenhouse gas reduction targets

Canada is a signatory to the Paris Agreement, and has committed to reducing its greenhouse gas emissions by 30% below 2005 levels by 2030, as well as decreasing the emission of black carbon, a particulate pollutant which, while short-lived, causes disproportionate climate impacts in the arctic.²³ The Pan-Canadian Framework on Clean Growth and Climate Change lays out four main pillars which will enable Canada to achieve the targets which have been set; one pillar is to accelerate investment in clean technology, innovation, and jobs.²⁴ Sustainalytics is of the opinion that the eligible projects enumerated by the Framework will support

¹⁸ Royal Bank of Canada, Corporate Citizenship, Environmental, Social and Governance (ESG) Investor Report 2017: <http://www.rbc.com/community-sustainability/assets-custom/pdf/RBC-CCR-Report-2017-e.pdf>

¹⁹ Global Risk Institution, Climate Change: Why Financial Institutions Should Take Note: <https://globalriskinstitute.org/publications/climate-change-why-financial-institutions-should-take-note/>

²⁰ International Energy Agency and International Renewable Energy Agency, Perspectives for the Energy Transition: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2017/Mar/Perspectives_for_the_Energy_Transition_2017.pdf

²¹ UNEP-FI, Financial Institutions Taking on Climate Change: <https://www.unepfi.org/fileadmin/documents/FinancialInstitutionsTakingActionOnClimateChange.pdf>

²² RBC, Climate Change Position & Disclosure Statement: http://www.rbc.com/community-sustainability/assets-custom/pdf/RBC_ClimateChangePosition_Disclosure_Statement_2017.pdf

²³ Government of Canada, Canada's Mid-Century Long-Term Low-Greenhouse Gas Development Strategy: https://unfccc.int/files/focus/long-term_strategies/application/pdf/can_low_ghg_strategy_red.pdf

²⁴ Government of Canada, Pan-Canadian Framework on Clean Growth and Climate Change: <https://www.canada.ca/en/services/environment/weather/climatechange/pan-canadian-framework/introduction.html>

the achievement of Canada's international greenhouse gas reduction commitments, and are in line with the Pan-Canadian Framework on Clean Growth and Climate Change.

Green buildings in Canada

In 2016, buildings in Canada emitted 81.4 megatonnes of CO₂ equivalent (Mt CO_{2e}), the third largest emitting sector, trailing only oil & gas and transportation.²⁵ The American Council for an Energy Efficient Economy ranked Canada 14th amongst the world's 25 largest energy consuming countries in 2018 for its level of energy efficiency in buildings.²⁶ In this context, investment in green buildings technology, as well as building energy efficiency, can provide substantial environmental benefits.

RBC's green buildings criteria encompasses both commercial and residential buildings that either have demonstrated GHG emissions performance in the top 15% of their city, or that have achieved a green building certification from a reputable third party. The "top 15%" criterion is in line with that provided by the Climate Bond Initiative for residential buildings.²⁷ While there is, at this time, limited data on the Canadian residential buildings market that would support certification under this criterion, its inclusion in the framework allows for future inclusion of assets in this category, notably residential mortgages, as has been done in other jurisdictions, such as Australia²⁸ and Norway²⁹. The certified green buildings criterion allows the inclusion of buildings which have attained LEED Gold or Platinum; Sustainalytics considers the inclusion of only these top two levels as representative of best practice in the green bonds market. The Framework also considers the use of "equivalent certification schemes", and specifically lists BOMA BEST, BREEAM, and Energy Star. Sustainalytics views BOMA and BREEAM as reputable certification agencies, with BOMA Gold and Platinum and BREEAM Excellent and Outstanding or higher as equivalent to LEED's top two levels. Energy Star ratings assess only energy, instead of viewing buildings from a holistic perspective; Sustainalytics encourages RBC to consider other sustainability factors where possible, such as water usage or construction materials, and considers Energy Star rated buildings with a score of 85 or higher as representative the highest levels of performance. For more information on varying green building standards, please see Appendix 1.

Contribution of affordable housing towards Canada's accommodation needs

According to the Canada Mortgage and Housing Corporation (CMHC), those who spend 30% or more of total household income on shelter expenses are defined as having a "housing affordability" problem.³⁰ Statistics Canada revealed that one in four Canadian households spend at least 30% of their household income on shelter costs.³¹ With high shelter costs, those who experience housing affordability often suffer from inadequate funds for other necessities such as food, clothing and access to education, consequently exacerbating the inequality gap between Canadians and leading to an increase in crime, educational underachievement and poor health. Since 2011, the Canadian government has been working with CMHC to address this phenomenon by providing new federal funding for affordable housing through the Investment in Affordable Housing³² (IAH) program. Within this program, federal funds are cost-matched by provinces and territories to a) increase the supply of affordable housing across Canada; b) improve and preserve the quality of affordable housing; c) improve housing affordability for vulnerable Canadians; and d) foster safe, independent living. While this program has addressed many of the challenges in the housing market, rising prices in recent years and a limited supply have made it difficult for many Canadians to benefit from such programs, and housing affordability remains a key challenge for many communities.

Considering the above, and highlighting RBC's intention to align to housing programs such as the CMHC IAH program, or other regional equivalent, Sustainalytics is of the opinion that the affordable housing use of proceeds category will create positive social impact by increasing the availability and accessibility of affordable housing in Canada, including for low-income residents.

²⁵ Government of Canada, Greenhouse gas emissions: <https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions.html>

²⁶ American Council for an Energy-Efficient Economy, The 2018 International Energy Efficiency Scorecard: <http://aceee.org/sites/default/files/publications/researchreports/i1801.pdf>

²⁷ Climate Bonds Initiative, Residential Buildings Criteria Overview: <https://www.climatebonds.net/standard/buildings/residential/>

²⁸ National RMBS Trust 2018-1 https://capital.nab.com.au/docs/NAB_-2018_1_Green-Tranche_Pre-Issuance-Verification.pdf

²⁹ SpareBank, Green Bond Framework: [https://spabol.sparebank1.no/uploads/20180112_Spabol_Green_Bond_Framework_\(final\).pdf](https://spabol.sparebank1.no/uploads/20180112_Spabol_Green_Bond_Framework_(final).pdf)

³⁰ Canada Mortgage and Housing Corporation, About Affordable Housing in Canada: <https://www.cmhc-schl.gc.ca/en/developing-and-renovating/develop-new-affordable-housing/programs-and-information/about-affordable-housing-in-canada>

³¹ Statistics Canada, Housing Affordability: <https://www150.statcan.gc.ca/n1/pub/82-229-x/2009001/envir/hax-eng.htm>

³² Canadian Mortgage and Housing Corporation: <https://www.cmhc-schl.gc.ca/en/developing-and-renovating/provincial-territorial-agreements/investment-in-affordable-housing>

The importance of supporting Indigenous communities and businesses

RBC intends to use a portion of net proceeds from its bonds to support Indigenous Peoples' bands, councils, governments and or businesses as well as the development or purchase of housing on a First Nation reserve. Sustainalytics notes that Indigenous Peoples represent a significant segment of the labour market and local economy in Canada, with over 1.6 million people accounting for approximately 4.9% of the total population.³³ The population is rapidly growing, with the self-identified Indigenous population increasing 42.5% between 2006 and 2016,³⁴ while First Nations have been recognized as the youngest and fastest growing segment of the Canadian population,³⁵ highlighting the need for new solutions to meet this growing segment of the Canadian population.

Indigenous communities and individuals face a number of challenges in the economy; when comparing the percentage of the population not in the labour force, the OECD highlighted significant gaps between the Indigenous and non-Indigenous population in Canadian cities in 2018, ranging between 13.9% in Edmonton and 22.1% in Thunder Bay.³⁶ Indigenous Peoples are also faced with inadequate housing, with over 23.4% of First Nation adults living in overcrowded housing, often resulting in social tensions and long-lasting health problems.³⁷ Ongoing challenges in First Nations communities also include a lack of safe drinking water, unsatisfactory heating systems, a lack of adequate sewage services as well as obstacles to accessing viable housing programs due to inadequate third-party management as well as rapidly increasing debt burden. As a key financial services provider for Indigenous communities across Canada, RBC is well positioned to support Indigenous Peoples Communities & Businesses in order to promote self-sufficiency amongst Indigenous Peoples and their communities, as aligned with the UNDRIP's mission.³⁸

Sustainalytics views positively these investments and believes that they will enhance Indigenous communities, providing overall positive social impacts for Canadian society at large.

The role of the financial sector in supporting women-owned businesses

According to Statistics Canada, women-owned enterprises experienced the fastest growth between 2005 and 2013, with the number of women-owned enterprises increasing from 232,800 in 2005 to 300,000 in 2013.³⁹ In addition, women-owned enterprises were the least affected by the 2008 financial crisis.⁴⁰ Despite these realities, the total number of women-owned enterprises, specifically SMEs, remains a fraction of the number of men-owned enterprises, at 15.7% and 64.6% respectively in 2014.⁴¹ One of the reasons being limited access to funding which acts as a major barrier in the growth path of women-owned enterprises. While expansion capital is a challenge for all business owners, studies show that women experience this challenge more acutely than men, with women-owned businesses only receiving 4% of Canada's venture capital funding.⁴² While women currently only run a sixth of all Canadian businesses, data gathered by the Government of Canada signals that supporting the advancement of women's economic participation in the economy could result in a CAD 150 billion contribution to the nation's GDP.⁴³

As an important business lender in Canada, RBC is uniquely positioned to support female entrepreneurship and leadership by providing increased accessibility and growth opportunities for women-owned businesses. Sustainalytics believes that RBC's investments towards women-owned business will yield strong positive social impacts.

³³ OECD, Indigenous Employment Skills and Strategies in Canada: <https://www.afn.ca/uploads/files/housing/factsheet-housing.pdf>

³⁴ CBC, Indigenous population growing rapidly: <https://www.cbc.ca/news/indigenous/indigenous-census-rapid-growth-1.4370727>

³⁵ Global News, Canada's Indigenous population growing 4 times faster than rest of country: <https://globalnews.ca/news/3823772/canadas-growing-indigenous-population/>

³⁶ OECD, Indigenous Employment Skills and Strategies in Canada: <https://www.afn.ca/uploads/files/housing/factsheet-housing.pdf>

³⁷ Assembly of First Nations, First Nations Housing On-Reserve: <https://www.afn.ca/uploads/files/housing/factsheet-housing.pdf>

³⁸ OHCHR, Indigenous Peoples and Access to Finance: https://www.ohchr.org/Documents/Issues/IPeoples/EMRIP/StudyGoodPractices/Australia_2.pdf

³⁹ Statistic Canada, Women-owned Enterprises in Canada: <https://www150.statcan.gc.ca/n1/pub/11-626-x/11-626-x2018083-eng.htm>

⁴⁰ Statistic Canada, Women-owned Enterprises in Canada: <https://www150.statcan.gc.ca/n1/pub/11-626-x/11-626-x2018083-eng.htm>

⁴¹ Ibid.

⁴² Canada Post, The power of female small business owner and leaders: <https://www.canadapost.ca/blogs/business/ecommerce/the-power-of-female-small-business-owners-and-leaders/>

⁴³ Government of Canada, Women Entrepreneurship Strategy: <https://www.ic.gc.ca/eic/site/107.nsf/eng/home>

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The importance of promoting diversity and inclusion

RBC intends to use a portion of net proceeds from its bonds to support businesses demonstrating meaningful advancements in diversity⁴⁴ and inclusion. Research shows that diverse workforces are critical to encouraging different perspectives and ideas that drive innovation.⁴⁵ A study conducted by McKinsey & Company found that in the United States, there is a linear relationship between racial and ethnic diversity and better financial performance, while in Canada, Latin America, the United Kingdom and the United States, companies in the top quartile for gender diversity are 15% more likely to have financial returns above their respective national industry medians.⁴⁶ One of the takeaways of the study is that the unequal performance of companies in the same industry and the same country signals that diversity is a competitive differentiator which is shifting the market share toward companies which are actively embracing diversity.⁴⁷ According to a study conducted by the American Institutes for Research in 2018, total after-tax disposable income for working-age people with disabilities in the United States is approximately USD 490 billion,⁴⁸ while in Canada, purchasing power for working-age people with disabilities is approximately CAD 55 billion.⁴⁹ Meanwhile, the Indigenous population in Canada could reach between 1.7 million and 2.2 million in 2033.⁵⁰ Despite these findings and a growth in minority populations, many individuals still face barriers and lack opportunities for advancement due to a lack of strategic and integrated diversity and inclusion considerations in many organizations.

Sustainalytics is of the opinion that using bond proceeds to invest in this category will contribute to fostering greater diversity and inclusion in Canadian companies.

Alignment with and contribution to the Sustainable Development Goals

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. This sustainability bond advances the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Renewable energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Energy efficiency		7.3 By 2030, double the global rate of improvement in energy efficiency
Pollution prevention and control	12. Responsible Consumption and Production	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
Sustainable land use	15. Life on Land	15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.
Clean transportation	9. Industry, Innovation and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes
Sustainable water and wastewater management	6. Clean Water and Sanitation	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
Green buildings	11. Sustainable Cities and Communities	11.B By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans

⁴⁴ Diversity can include gender, ethnicity, sexual orientation and able-bodiedness, among other types.

⁴⁵ The Globe and Mail, Diverse and inclusive corporate cultures make for better business decisions:

<https://www.theglobeandmail.com/business/careers/leadership/article-diverse-and-inclusive-corporate-cultures-make-for-better-business/>

⁴⁶ McKinsey & Company, Why diversity matters: <https://www.mckinsey.com/business-functions/organization/our-insights/why-diversity-matters>

⁴⁷ McKinsey & Company, Why diversity matters: <https://www.mckinsey.com/business-functions/organization/our-insights/why-diversity-matters>

⁴⁸ American Institutes for Research, A Hidden Market: The Purchasing Power of Working-Age Adults with Disabilities:

<https://www.air.org/system/files/downloads/report/Hidden-Market-Spending-Power-of-People-with-Disabilities-April-2018.pdf>

⁴⁹ Ontario Chamber of Commerce, Inclusivity and Accessibility: A Smart Business Decision: <https://occ.ca/inclusivity-and-accessibility-a-smart-business-decision/>

⁵⁰ The Canadian Encyclopedia, Demography of Indigenous Peoples in Canada: <https://www.thecanadianencyclopedia.ca/en/article/aboriginal-people-demography>

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Affordable housing		<p>towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters</p> <p>11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.</p> <p>11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.</p>
Climate adaption and resilience	13. Climate Action	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
Access to essential services	<p>3. Good Health and Well-Being</p> <p>4. Quality Education</p>	<p>3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.</p> <p>4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.</p> <p>4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.</p>
<p>Indigenous communities and businesses</p> <p>Leadership in diversity & inclusion</p> <p>Women-owned Businesses</p>	<p>8. Decent Work and Economic Growth</p> <p>10. Reduced Inequalities</p> <p>5. Gender Equality</p>	<p>8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.</p> <p>10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.</p> <p>5.5 Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.</p>

Conclusion

RBC has developed a Sustainable Bond Framework to finance and/or refinance a broad range of Eligible Assets that intend to deliver positive environmental and social outcomes. Sustainalytics believes that RBC’s Framework is aligned with the company’s sustainability strategy and that the environmental and social use of proceed categories will advance several key UN Sustainable Development Goals.





The use of proceeds categories specified in the Framework are aligned with those of the Green Bond Principles 2018 and/or the Social Bond Principles 2020. RBC has described a process by which proceeds will be tracked, allocated and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Sustainalytics is of the opinion that RBC as adequate measures in place to identify, manage and mitigate environmental and social risks commonly associated with Eligible Assets funded by the use of proceeds.

Overall, Sustainalytics is of the opinion that the Royal Bank of Canada Sustainable Bond Framework is robust, transparent, and in alignment with the Sustainability Bond Guidelines 2018 and the four core components of the Green Bond Principles 2018 and the Social Bond Principles 2020.

Appendices

Appendix 1: Comparison of Green Building Certification Schemes

	LEED	Energy Star	BOMA BEST	BREEAM
Background	Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by the non-profit U.S. Green Building Council (USGBC) and covers the design, construction, maintenance and operation of buildings.	ENERGY STAR is a U.S Environmental Protection Agency voluntary program that provides independently certified energy efficiency ratings for products, homes, buildings, and industrial plants. Certification is given on an annual basis, so a building must maintain its high performance to be certified year to year.	BOMA BEST, administered by the Building Owners and Managers Association (BOMA) of Canada, is a certification program for existing buildings. The assessment considers performance and operation of buildings in a wide range of performance and operations categories.	BREEAM (Building Research Establishment Environmental Assessment Method) was first published by the Building Research Establishment (BRE) in 1990. Based in the UK, this scheme can be used for new, refurbished and extension of existing buildings.
Certification levels	<ul style="list-style-type: none"> • Certified • Silver • Gold • Platinum 	<ul style="list-style-type: none"> • 1-100 score, 75 is minimum for certification 	<ul style="list-style-type: none"> • Certified • Bronze • Silver • Gold • Platinum 	<ul style="list-style-type: none"> • Pass • Good • Very Good • Excellent • Outstanding
Areas of assessment	<ul style="list-style-type: none"> • Energy and atmosphere • Sustainable Sites • Location and Transportation • Materials and resources • Water efficiency • Indoor environmental quality • Innovation in Design • Regional Priority 	<ul style="list-style-type: none"> • Energy use 	<ul style="list-style-type: none"> • Energy • Water • Air • Comfort • Health and Wellness • Custodial • Purchasing • Waste • Site • Stakeholder Engagement 	<ul style="list-style-type: none"> • Management • Energy • Land Use and Ecology • Pollution • Transport • Materials • Water • Waste • Health and Wellbeing • Innovation
Requirements	Minimum requirements independent of level of certification; point-based scoring system weighted by category to determine certification level.	1-100 score based on energy use, as calculated through the Portfolio Manager tool. Raw score is adjusted based on location, operating conditions, and other factors. The numerical score indicates	Minimum requirements independent of level of certification; score based on checklist to determine certification level. The minimum best practices and category scoring	Minimum requirements depending on the level of certification; scoring system weighted by category, producing a percentage-based overall score. The majority of BREEAM issues are flexible, meaning that the

	<p>The rating system is adjusted to apply to specific sectors, such as: New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, and Existing Buildings: Operation and Maintenance.</p>	<p>performance better than at least 75 percent of similar buildings nationwide.</p>	<p>is adjusted for seven different asset classes: office, enclosed shopping centres, light industrial, open air retail, universal, MURB, and health care.</p>	<p>client can choose which to comply with to build their performance score.</p> <p>BREAAAM has two stages/ audit reports: a 'BREAAAM Design Stage' and a 'Post Construction Stage', with different assessment criteria.</p>
Qualitative Considerations	<p>Widely accepted within the industry, both in North America and internationally, and considered a guarantee of strong performance.</p>	<p>Accounts only for energy use, not other measures of environmental performance. Is a key component of other green building certification systems.</p>	<p>Most commonly used certification for existing buildings in Canada, and considered less administratively burdensome for existing buildings.</p>	<p>Used in more than 70 countries: Good adaptation to the local normative context. Predominant environmental focus, lower levels are less strict than LEED.</p>
Performance display				

Appendix 2: Sustainalytics' Analysis of FSC and PEFC Certifications

	FSC ⁵¹	PEFC ⁵²
Background	Founded in 1993 after the 1992 Earth Summit in Rio failed to produce any international agreements to fight against deforestation, FSC aims to promote sustainable forest management practice.	PEFC was founded in 1999 in response to the specific requirements of small- and family forest owners as an international umbrella organization providing independent assessment, endorsement and recognition of national forest certification systems.
Basic Principles	<ul style="list-style-type: none"> • Compliance with laws and FSC principles • Tenure and use rights and responsibilities • Indigenous peoples' rights • Community relations and workers' rights • Benefits from the forests • Environmental impact • Management plans • Monitoring and assessment • Special sites – high conservation value forests (HCVF) • Plantations 	<ul style="list-style-type: none"> • Maintenance and appropriate enhancement of forest resources and their contribution to the global carbon cycle • Maintenance and enhancement of forest ecosystem health and vitality • Maintenance and encouragement of productive functions of forests (wood and no-wood) • Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems • Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water) • Maintenance of socioeconomic functions and conditions • Compliance with legal requirements
Governance	<p>The General Assembly, consisting of all FSC members, constitutes the highest decision-making body.</p> <p>At the General Assembly, motions are proposed by one member, seconded by two more, and deliberated and voted on by all members. Members are entitled to vote to amend the bylaws, initiate new policies, and clarify, amend or overturn a policy decision by the board.</p> <p>Members apply to join one of three chambers – environmental,</p>	<p>PEFC's governance structure is formed by the General Assembly (GA) which is the highest authority and decision-making body. It is made up of all PEFC members, including national and international stakeholders.</p> <p>Members vote on key decisions including endorsements, international standards, new members, statutes and budgets. All national members have between one and seven votes, depending on membership fees, while international stakeholder members have one vote each.</p>

⁵¹ Forest Stewardship Council, FSC: <https://ca.fsc.org/en-ca>

⁵² Programme for the Endorsement of Forest Certification, PEFC: <https://www.pefc.org/>

	<p>social, or economic – that are further divided into northern and southern sub-chambers.</p> <p>Each chamber holds 33.3% of the weight in votes, and within each chamber the votes are weighted so that the North and South hold an equal portion of authority, to ensure influence is shared equitably between interest groups and countries with different levels of economic development.</p> <p>The votes of all individual members in each sub-chamber represent 10% of the total vote of the sub-chamber, while the votes of organizational members make up the other 90%.</p> <p>The members vote for the board of directors, which is accountable to the members. There is an international board elected by all members and a US board, elected by the US-based members.</p>	<p>The Board of Directors supports the work of the GA and together the GA and the Board make the formal approval of final draft standards. Standards are developed by working groups.</p> <p>In general, PEFC’s governance structure is more representative of industry and government stakeholders than of social or environmental groups, which gives industry and governments more influence in the decision-making process. However, the organization does include stakeholders from all sectors.</p>
<p>Scope</p>	<p>FSC is a global, multi-stakeholder owned system. All FSC standards and policies are set by a consultative process. There is an FSC Global standard and for certain countries FSC National standards. Economic, social, and environmental interests have equal weight in the standard setting process. FSC follows the ISEAL Code of Good Practice for Setting Social and Environmental Standards.</p>	<p>Multi-stakeholder participation is required in the governance of national schemes as well as in the standard-setting process. Standards and normative documents are reviewed periodically at intervals that do not exceed five years. The PEFC Standard Setting standard is based on ISO/IEC Code for good practice for standardization (Guide 59)⁵³ and the ISEAL Code of Good Practice for Setting Social and Environmental Standards.</p>
<p>Chain-of-Custody</p>	<ul style="list-style-type: none"> • The Chain-of-Custody (CoC) standard is evaluated by a third-party body that is accredited by FSC and compliant with international standards. • CoC standard includes procedures for tracking wood origin. • CoC standard includes specifications for the physical separation of certified and non-certified wood, and for the percentage of mixed content (certified and non-certified) of products. 	<ul style="list-style-type: none"> • Quality or environmental management systems (ISO 9001:2008 or ISO 14001:2004 respectively) may be used to implement the minimum requirements for chain-of-custody management systems required by PEFC. • Only accredited certification bodies can undertake certification. • CoC requirements include specifications for physical separation of wood and percentage-based methods

⁵³ ISO, ISO/IEC Guide 59:2019: <https://www.iso.org/standard/23390.html>

	<ul style="list-style-type: none"> CoC certificates state the geographical location of the producer and the standards against which the process was evaluated. Certificates also state the starting and finishing point of the CoC. 	<p>for products with mixed content.</p> <ul style="list-style-type: none"> The CoC standard includes specifications for tracking and collecting and maintaining documentation about the origin of the materials. The CoC standard includes specifications for the physical separation of certified and non-certified wood. The CoC standard includes specifications about procedures for dealing with complains related to participant’s chain of custody.
<p>Non-certified wood sources</p>	<p>FSC’s Controlled Wood Standard establishes requirements to participants to establish supply-chain control systems, and documentation to avoid sourcing materials from controversial sources, including:</p> <ol style="list-style-type: none"> Illegally harvested wood, including wood that is harvested without legal authorization, from protected areas, without payment of appropriate taxes and fees, using fraudulent papers and mechanisms, in violation of CITES requirements, and others, Wood harvested in violation of traditional and civil rights, Wood harvested in forests where high conservation values are threatened by management activities, Wood harvested in forests being converted from forests and other wooded ecosystems to plantations or non-forest uses, Wood from management units in which genetically modified trees are planted. 	<p>The PEFC’s Due Diligence System requires participants to establish systems to minimize the risk of sourcing raw materials from:</p> <ol style="list-style-type: none"> forest management activities that do not comply with local, national or international laws related to: <ul style="list-style-type: none"> operations and harvesting, including land use conversion, management of areas with designated high environmental and cultural values, protected and endangered species, including CITES species, health and labor issues, indigenous peoples’ property, tenure and use rights, payment of royalties and taxes. genetically modified organisms, forest conversion, including conversion of

		primary forests to forest plantations.
Accreditation/verification	FSC-accredited Certification Bodies (CB) conduct an initial assessment, upon successful completion companies are granted a 5-year certificate. Companies must undergo an annual audit every year and a reassessment audit every 5 years. Certification Bodies undergo annual audits from Accreditation Services International (ASI) to ensure conformance with ISO standard requirements.	<p>Accreditation is carried out by an accreditation body (AB). Like a certification body checks a company meets the PEFC standard, the accreditation body checks that a certification body meets specific PEFC and ISO requirements. Through the accreditation process PEFC has assurance that certification bodies are independent and impartial, that they follow PEFC certification procedures.</p> <p>PEFC does not have their own accreditation body. Like with the majority of ISO based certifications, PEFC relies on national ABs under the umbrella of the International Accreditation Forum (IAF). National ABs need to be a member of the IAF, which means they must follow IAF's rules and regulations.</p>
Conclusion	Sustainalytics views both FSC and PEFC as being robust, credible standards that are based on comprehensive principles and criteria that are aligned with ISO. Both schemes have received praise for their contribution to sustainable forest management practices ⁵⁴ and both have also faced criticism from civil society actors. ^{55,56} In certain instances, these standards go above and beyond national regulation and are capable of providing a high level of assurance that sustainable forest management practices are in place. However, in other cases, the standards are similar or equal to national legislation and provide little additional assurance. Ultimately, the level of assurance that can be provided by either scheme is contingent upon several factors including the certification bodies conducting audits, national regulations and local context.	

⁵⁴ FESPA, FSC, PEFC and ISO 38200: <https://www.fespa.com/en/news-media/blog/fsc-pefc-and-iso-38200>

⁵⁵ Yale Environment 360, Greenwashed Timber: How Sustainable Forest Certification Has Failed: <https://e360.yale.edu/features/greenwashed-timber-how-sustainable-forest-certification-has-failed>

⁵⁶ EIA, PEFC: A Fig Leaf for Stolen Timber: <https://eia-global.org/blog-posts/PEFC-fig-leaf-for-stolen-timber>

Appendix 3: Sustainability Bond / Sustainability Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	Royal Bank of Canada
Sustainability Bond ISIN or Issuer Sustainability Bond Framework Name, if applicable: [specify as appropriate]	RBC Sustainable Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	June 16, 2020
Publication date of review publication: [where appropriate, specify if it is an update and add reference to earlier relevant review]	

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs and SBPs:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (please specify): | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (if applicable)

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section (*if applicable*):

The thirteen eligible green and social categories for the use of proceeds – (i) renewable energy, (ii) energy efficiency, (iii) pollution prevention and control, (iv) sustainable land use, (v) clean transportation, (vi) sustainable water and wastewater management, (vii) green buildings, (viii) climate adaptation and resilience, (ix) access to essential services, (x) affordable housing, (xi) indigenous communities and businesses, (xii) women-owned businesses and (xiii) leadership in diversity & inclusion – are aligned with those recognized by the Green Bond Principles 2018, the Social Bond Principles 2020, and the Sustainability Bond Guidelines 2018. Overall, the use of proceeds, will, in Sustainalytics' opinion, have positive environmental or social impacts and advance a number of UN Sustainable Development Goals.

Use of proceeds categories as per GBP:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency |
| <input checked="" type="checkbox"/> Pollution prevention and control | <input checked="" type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input checked="" type="checkbox"/> Clean transportation |
| <input checked="" type="checkbox"/> Sustainable water and wastewater management | <input checked="" type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input checked="" type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | <input type="checkbox"/> Other (<i>please specify</i>): |

If applicable please specify the environmental taxonomy, if other than GBPs:

Use of proceeds categories as per SBP:

- | | |
|--|--|
| <input type="checkbox"/> Affordable basic infrastructure | <input checked="" type="checkbox"/> Access to essential services |
| <input checked="" type="checkbox"/> Affordable housing | <input type="checkbox"/> Employment generation (through SME financing and microfinance) |
| <input type="checkbox"/> Food security | <input type="checkbox"/> Socioeconomic advancement and empowerment |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with SBP categories, or other eligible areas not yet stated in SBPs | <input checked="" type="checkbox"/> Other (<i>please specify</i>): (a) Indigenous Communities & Business; (b) Women-owned Businesses, and (c) Leadership in Diversity & Inclusion. |

If applicable please specify the social taxonomy, if other than SBPs:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

RBC has established a Sustainable Bond Working Group to oversee the sustainable bond programme, which will be comprised of senior representatives from various departments, including Corporate Treasury, Capital Markets, Personal & Commercial Banking, and Sustainability. The Group will review the Sustainable Bond Asset Portfolios on a quarterly basis. In addition, RBC is a signatory to the Equator Principles. This is in line with market best practice.

Evaluation and selection

- | | |
|---|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's social and green objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Sustainability Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on Responsibilities and Accountability

- | | |
|--|--|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

RBC will tag Eligible Assets in its existing information management systems. The Sustainable Bond Working Group will ensure that the portfolio balance meets or exceeds the amount of outstanding green, social and/or sustainability bonds. Unallocated proceeds will be held in money market instruments, as part of the Bank's liquidity portfolio. This is in line with market practice.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Sustainability Bond proceeds segregated or tracked by the issuer in an appropriate manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (<i>please specify</i>): |

Additional disclosure:

- | | |
|---|--|
| <input type="checkbox"/> Allocations to future investments only | <input type="checkbox"/> Allocations to both existing and future investments |
|---|--|

- | | |
|---|--|
| <input type="checkbox"/> Allocation to individual disbursements | <input checked="" type="checkbox"/> Allocation to a portfolio of disbursements |
| <input checked="" type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (<i>please specify</i>): |

4. REPORTING

Overall comment on section (if applicable):

RBC will report annually, on any outstanding green, social and/or sustainability bonds, information regarding allocation and impacts. Allocation information will include amounts aggregated at the category level, while impact reporting will include key performance indicators at the category level. In Sustainalytics' view, reporting on these metrics is in line with market practice.

Use of proceeds reporting:

- | | |
|--|--|
| <input type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Information reported:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> Sustainability Bond financed share of total investment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Frequency:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Impact reporting:

- | | |
|--|--|
| <input type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Frequency:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Information reported (expected or ex-post):

- | | |
|---|--|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input checked="" type="checkbox"/> Energy Savings |
| <input checked="" type="checkbox"/> Decrease in water use | <input checked="" type="checkbox"/> Number of beneficiaries |
| <input checked="" type="checkbox"/> Target populations | <input type="checkbox"/> Other ESG indicators (<i>please specify</i>): Various metrics depending on category |

Means of Disclosure

- | | |
|---|---|
| <input type="checkbox"/> Information published in financial report | <input type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents | <input checked="" type="checkbox"/> Other (please specify): Company website |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): | |

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE**Type(s) of Review provided:**

- | | |
|--|--|
| <input type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Review provider(s):**Date of publication:****ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP AND THE SBP**

- i. Second Party Opinion: An institution with sustainability expertise that is independent from the issuer may provide a Second Party Opinion. The institution should be independent from the issuer's adviser for its Sustainability Bond framework, or appropriate procedures such as information barriers will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy, and/or processes relating to sustainability and an evaluation of the environmental and social features of the type of Projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or sustainability criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally or socially sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Sustainability Bond proceeds, statement of environmental or social impact or alignment of reporting with the Principles may also be termed verification.
- iii. Certification: An issuer can have its Sustainability Bond or associated Sustainability Bond framework or Use of Proceeds certified against a recognised external sustainability standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. Green, Social and Sustainability Bond Scoring/Rating: An issuer can have its Sustainability Bond, associated Sustainability Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental and/or social performance data, process relative to the Principles, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material sustainability risks.

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