

ASSESSMENT

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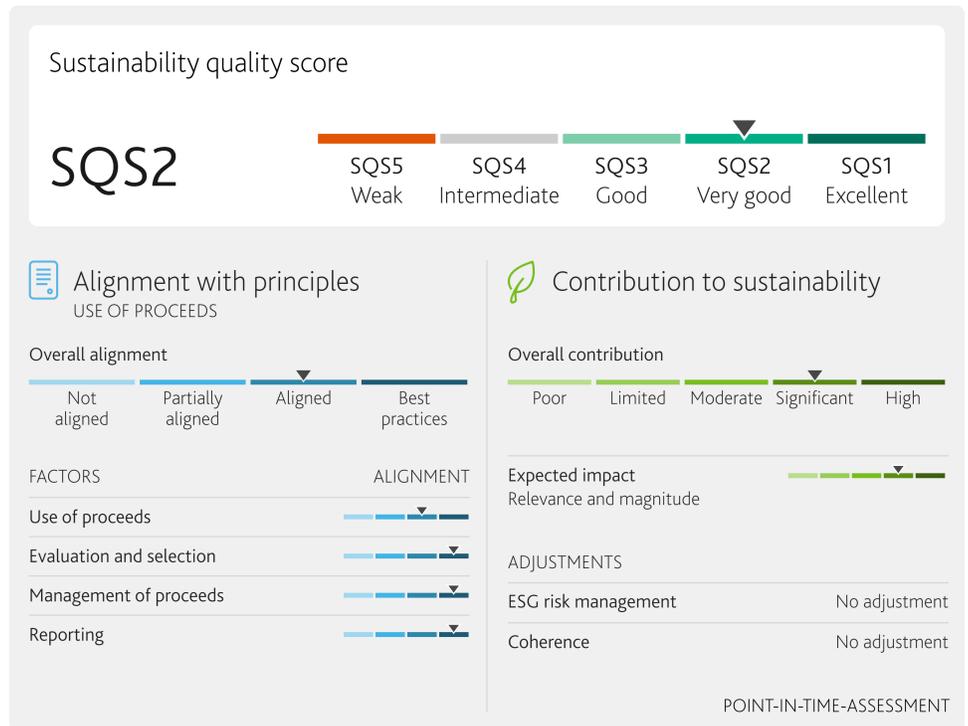
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# Bank of Montreal

## Second Party Opinion – Sustainable Bond Framework Assigned SQS2 Sustainability Quality Score

### Summary

We have assigned an SQS2 sustainability quality score (very good) to the Bank of Montreal's (BMO) sustainable bond framework dated April 2024. The issuer has established its use-of-proceeds framework with the aim of financing projects across 18 eligible green, social and transition categories. The framework is aligned with the four core components of the International Capital Market Association's (ICMA) Green Bond Principles (GBP) 2021 (with June 2022 Appendix 1) and Social Bond Principles (SBP) 2023. The framework demonstrates a significant contribution to sustainability.



## Scope

We have provided a second party opinion (SPO) on the sustainability credentials of BMO's sustainable bond framework, including the framework's alignment with the ICMA's GBP 2021 (with June 2022 Appendix 1) and SBP 2023. Under its framework, BMO plans to issue four types of bonds – including green bonds, social bonds, sustainability bonds and transition bonds – to finance projects across 18 eligible asset categories, as outlined in Appendix 2 of this report.

Our assessment is based on the last updated version of the framework received on 3 April 2024, and our opinion reflects our point-in-time assessment<sup>1</sup> of the details contained in this version of the framework, as well as other public and non-public information provided by the company.

We produced this SPO based on our [Framework to Provide Second Party Opinions on Sustainable Debt](#), published in October 2022.

## Issuer profile

BMO Financial Group is the eighth largest bank in North America, with total assets of \$1.3 trillion as of 31 January 2024. The bank offers personal and commercial banking services, wealth management and capital markets products and services, with approximately 59% of net revenue generated in Canada and other regions, and 41% generated in the US, as of 31 October 2023. The bank serves 13 million customers across Canada and the US and in select markets globally through three integrated operating groups, namely its Personal and Commercial Banking, BMO Wealth Management and BMO Capital Markets groups.

The banking sector is exposed to carbon transition risks primarily from its exposure to retail and corporate lending and investment activities that principally mirror the full spectrum of economic activities. Social risks stemming from data security and customer privacy are critical concerns for the sector because of the large amounts of personal data accessed. The sector plays a central role to mobilize capital to support projects with environmental and social benefits for the broader economy. BMO has formalized its enterprise-wide climate ambition in which the bank intends to mobilize C\$300 billion in capital to clients pursuing sustainable outcomes through green, social and sustainable lending, underwriting and advisory services and investments by 2025. The bank is committed to targeting net zero financed emissions in its lending portfolio by 2050.

## Strengths

- » Eligible project categories address a wide range of environmental and social objectives that are relevant to the bank's lending activities and the regions in which it operates
- » Robust environmental and social risk management process, including screening for potential controversies associated with projects
- » Short maximum proceeds allocation period of 18 months, in line with best market practice

## Challenges

- » Some eligible categories lack granular details on specific assets or projects to be financed
- » Although the framework is in line with current market practices, inclusion of general corporate purpose loans through pure-play companies constitutes a nonstandard use of proceeds potentially susceptible to challenges related to asset-level adherence to sustainability objectives, allocation and traceability, impact reporting, and an increased risk of double counting

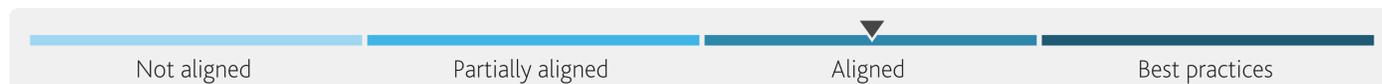
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## Alignment with principles

BMO's sustainable bond framework is aligned with the four core components of the ICMA's GBP 2021 (with June 2022 Appendix 1) and SBP 2023:

- Green Bond Principles (GBP)
- Social Bond Principles (SBP)
- Green Loan Principles (GLP)
- Social Loan Principles (SLP)
- Sustainability-Linked Bond Principles (SLBP)
- Sustainability Linked Loan Principles (SLLP)

## Use of proceeds



### Clarity of the eligible categories – ALIGNED

The bank has clearly communicated the nature of the expenditures, the eligibility and exclusion criteria for financed projects, as well as the target populations for the social categories. The bank has articulated the eligibility criteria for nearly all projects to be financed which includes general project descriptions and technical thresholds. However, the criteria for some categories remain broadly defined. Eligible projects will be located in BMO's operational footprint, primarily in North America. Nuclear related financings will be exclusively limited to Canada and the US and comprise no more than 10% of any instrument issued under the framework.

The cornerstone of the ICMA's Green Bond Principles and Social Bond Principles is the full utilization of net bond proceeds to eligible projects with clear environmental or social benefits. BMO's framework includes general corporate purpose loans and investments to pure-play companies that derive at least 90% of their revenue from activities that adhere to the eligibility criteria in the framework. With input from the respective lines of business, the bank's Sustainable Bond Working Group (SBWG) confirms that the revenue threshold is met at the time of asset selection. General corporate purpose loans are subject to an ESG risk monitoring as per BMO's Environmental and Social Risk General Financing Guidelines. Pure play loans can be allocated to any eligible category under the framework. However, the bank has shared that pure play financings under its past sustainable bond issuances have been limited to a select few eligible categories. Our assessment considers that pure play investments will continue to represent a small share of the bank's sustainable bond proceeds going forward.

In our view, pure play lending represents a non-standard use of proceeds that introduces certain potential challenges related to asset-level adherence to sustainability objectives, allocation and traceability, impact reporting, as well as an increased risk of double counting. The bank has provided information that demonstrates suitable measures to identify, select and allocate net proceeds to pure-play companies that adhere to the sustainability objectives and benefits targeted in the framework, and also to track and report on the associated sustainability benefits. The bank commits to report on its pro-rata share of financing or investments to pure players to minimize the risk of double counting of benefits. With these practices in place, coupled with the 90% revenue threshold, we consider the bank's internal processes to be in line with current market practices and sufficient to largely mitigate the potential associated risks.

### Clarity of the environmental or social objectives – BEST PRACTICES

The bank has clearly outlined the environmental and social objectives associated with all 18 eligible categories. All eligible categories are relevant to the respective environmental or social objectives to which they are aiming to contribute. The bank has referenced the UN Sustainable Development Goals (SDGs) in articulating the objectives of the eligible categories (see Appendix 1).

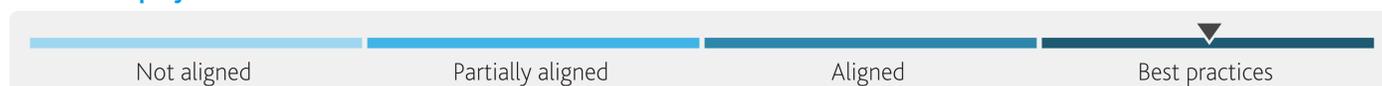
### Clarity of expected benefits – BEST PRACTICES

The bank has identified clear and relevant expected environmental and social benefits for the 18 eligible categories based on the projects likely to be financed under each category. The benefits are measurable for all project categories and the bank will report on these quantitative benefits in its annual reporting. The bank has committed to transparently disclose the share of refinancing and the look back period to investors.

### Best practices identified — use of proceeds

- » Objectives set are defined, relevant and coherent for all project categories
- » Relevant benefits are identified for all project categories
- » Benefits are measurable and quantified for most projects, either ex-ante with clear baselines or with a commitment to do so in future reporting
- » Commitment to transparently disclose the share of proceeds used for refinancing where feasible
- » Commitment to transparently communicate the associated lookback period(s) where feasible

### Process for project evaluation and selection



#### Transparency and quality of process for defining eligible projects – BEST PRACTICES

The bank has established a clear and structured decision-making process for the selection and evaluation of eligible assets. This is defined as loans, investments, internal or external projects and general corporate purpose loans to finance projects under the framework.

The bank's SBWG has the primary responsibility for reviewing and validating the pool of eligible assets in accordance with the framework criteria. The SBWG includes relevant expertise across the bank including representatives from corporate treasury, capital markets, banking and sustainability office teams. The SBWG is also responsible for the monitoring of the continued compliance of selected projects with the framework criteria on a semiannual basis. In case assets are no longer compliant with the eligibility criteria, the bank will remove the asset from the portfolio. Eligible loan asset pools will be subject to the bank's ongoing monitoring of ESG risks which will apply through loan maturity. Traceability of the process for project selection and evaluation is captured through the bank's internal sustainable bond procedures document that outlines the process for project selection, evaluation and monitoring, the governance and responsibilities of relevant internal stakeholders and the process for external assurance.

In the case of transition projects, the bank will assess eligible companies in accordance with the recommended criteria under ICMA's Climate Transition Financing Handbook (CTFH) for transition activity financing. The CTFH guidelines require companies to disclose information around their climate transition strategies and long term science based targets, helping to support the impact of transition assets to be financed under the framework.

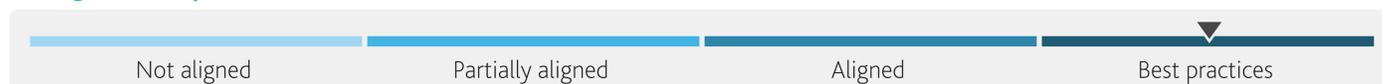
#### Environmental and social risk mitigation process – BEST PRACTICES

The environmental and social risk mitigation process is disclosed in the framework. BMO carries out appropriate ESG risk due diligence in accordance with the bank's enterprise-wide risk management framework, which covers credit, environmental and social risk management processes. All eligible assets will be subject to a regular review in line with the bank's applicable environmental and social risk management policies, including its environmental and social risk general financing guideline for wholesale lending, and the Equator Principles for project financing assets. Sectors with inherent heightened E&S exposure undergo a specific risk assessment which may consider factors such as climate change risks and consultation with the Indigenous Peoples community. ESG controversies are covered under the bank's credit review process and will be monitored until loan maturity.

### Best practices identified — process for project evaluation and selection

- » The roles and responsibilities for project evaluation and selection are clearly defined and include relevant expertise
- » There is evidence of continuity in the selection and evaluation process through the life of the financial instrument(s), including compliance verification and procedures to undertake mitigating actions when needed
- » The process for project evaluation and selection is traceable
- » Material environmental and social risks for most project categories are identified
- » Presence of corrective measures to address environmental and social risks across projects
- » ESG controversies are monitored

### Management of proceeds



#### Allocation and tracking of proceeds – BEST PRACTICES

The bank has defined a clear process for the management and allocation of bond proceeds in its framework. The bank will track proceeds using internal information systems, and a sustainable bond register will be used to record information and monitor the status of eligible assets. The bank will perform periodic adjustments of net proceeds to eligible assets on a quarterly basis. The bank aims to fully allocate the net proceeds from each sustainable bond within a period of 18 months of issuance. The bank's sustainable office team has primary responsibility of the management of proceeds and this process is reviewed semi-annually by the SBWG.

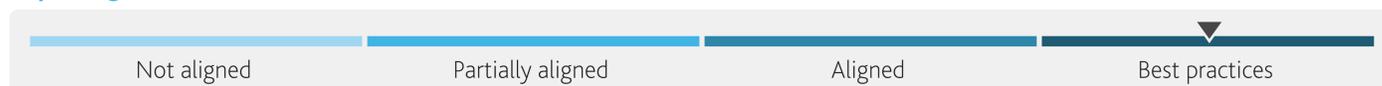
#### Management of unallocated proceeds – BEST PRACTICES

Unallocated proceeds will be held in cash or liquid securities in accordance with BMO's liquidity management policy. The placement of unallocated proceeds will also comply with the exclusion criteria under the framework, which excludes financing of certain environmentally and socially harmful activities. In the event an asset is no longer eligible or if the eligible loan is repaid or divested, an amount equal to the loan size will be deducted from the applicable portfolio. The bank commits to reallocate proceeds to assets that meet the framework's eligibility criteria.

### Best practices identified — management of proceeds

- » Broad disclosure of a clearly articulated and comprehensive management of proceeds policy to external stakeholders; bondholders or lenders at a minimum
- » Short allocation period, for example typically less than 24 months
- » Disclosure on temporary placements and presence of exclusion criteria toward environmentally or socially harmful activities
- » Commitment to reallocate proceeds to projects that are compliant with the framework

## Reporting



### Transparency of reporting – BEST PRACTICES

The bank will report annually on the use of proceeds allocation and impact reporting until maturity of the bonds issued under the framework. The report will be publicly available on BMO's website and will include exhaustive indicators, such as the net proceeds raised from each sustainable bond; the amounts allocated at the eligible category level; the balance of unallocated proceeds; details about assets financed, the share of financing vs re-financing and the expected sustainable benefits. The report will be made on an asset category and portfolio-wide basis grouping all the applicable sustainable bonds by label.

The bank has identified relevant potential impact indicators in the framework for the eligible categories. For general corporate purpose loans, the bank will track the environmental and social indicators associated with the activities undertaken by pure-play companies, and the SBWG will review and reflect these in the sustainable bond reporting. The bank will request an independent verification of the allocation of proceeds and asset compliance with the eligibility criteria, as well as on the sustainable impact indicators.

BMO is an experienced sustainable bond issuer. The bank issued its inaugural \$500 million sustainability bond in 2019 and a C\$750 million women in business bond in 2021. The bank's most recent 2023 impact report includes case studies of the positive social outcomes of its social asset financings, which is in line with market standards.

### Best practices identified — reporting

- » Reporting until full bond maturity or loan payback
- » Reporting covers material developments and issues related to the projects or assets
- » Reporting on allocation of proceeds and benefits done at least at eligible category level
- » Exhaustive allocation reporting – balance or % of unallocated funds, types of temporary investments (e.g. cash or cash equivalent) and share of financing vs re-financing
- » Clear and relevant indicators to report on the expected environmental/social impact of all the projects, where feasible, or eligible categories
- » Disclosure of reporting methodology and calculation assumptions to bondholders or lenders at a minimum
- » Independent audit of the tracking and allocation of funds at least until full allocation and in case of material changes
- » Independent impact assessment on environmental benefits by a qualified third-party reviewer at least until full allocation and in case of material changes and/or case studies to report on the social impact/benefits.

## Contribution to sustainability

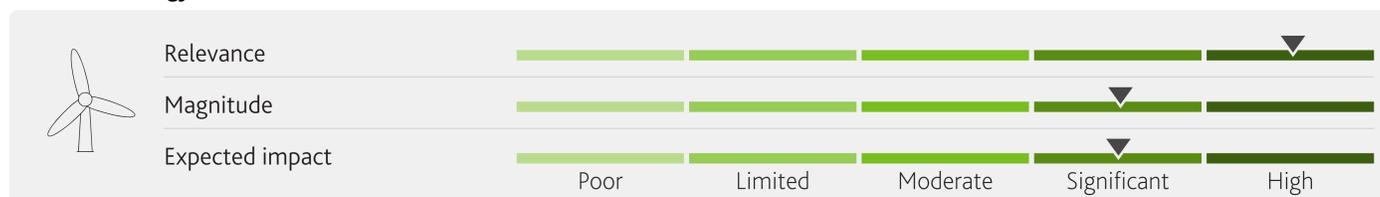
The framework demonstrates a significant overall contribution to sustainability.



### Expected impact

The expected impact of the eligible projects on environmental and social objectives is significant. Based on information provided by the bank, we expect proceeds from forthcoming issuances to represent a higher proportion for the renewable energy, pollution prevention and control, sustainable food and agriculture, green buildings and infrastructure, and socioeconomic advancement and empowerment project categories. We have therefore assigned a higher weight to those categories in our assessment of the overall framework's contribution to sustainability. A detailed assessment by eligible category is provided below.

#### Renewable energy



Investments supporting the energy transition to low carbon and renewable energy sources are highly relevant to the banking sector because of its critical role in mobilizing capital to address climate change and to support the decarbonization of energy sources. The shift to renewable technologies is key to decarbonize energy systems and the share of renewables would have to increase to over 60% in 2030 and to nearly 90% in 2050 globally under a net zero emissions in 2050 scenario.<sup>2</sup> In the US and Canada, both wind and solar account for a relatively small share of total generation, highlighting the need to increase the share of renewables in the energy mix.

The projects will likely contribute significantly to emission mitigation over the long term and avoid lock in impacts by replacing fossil energy with cleaner energy sources. Eligible projects include best available technologies to decarbonize such as onshore and offshore wind turbines, solar photovoltaic, tidal power and hydropower assets that will comply with market recognized thresholds to substantially reduce GHG emissions. Biomass energy projects will be produced using waste feedstock. Both biomass and geothermal projects with emissions less than 100g CO<sub>2</sub>e/kwh are considered eligible. The bank will view favorably biomass projects that demonstrate alignment with credible market recognized certifications that prevent indirect land use change and displacement of land for food. However, the framework eligibility criteria do not require biomass feedstocks to be certified.

Other eligible projects include hydrogen produced through electrolysis from renewable energy with life-cycle emissions below 3kgCO<sub>2</sub>e/kgH<sub>2</sub>. Although the referenced threshold is in line with market standards, more stringent criteria exists in the market, which requires a step down of carbon intensity levels to below 1.5kgCO<sub>2</sub>e/kgH<sub>2</sub> by 2030, according to the Climate Bonds Initiative (CBI). This coupled with the lack of a formalized eligibility criteria for bioenergy feedstock certification contributes to the significant magnitude.

## Nuclear energy



Nuclear energy investments in the category are highly relevant to support a low-carbon energy future. Although wind and solar sources are expected to generate most of the clean energy under a net zero scenario, nuclear capacity is projected to double between 2020 and 2050, with a share of generation just below 10%.<sup>3</sup> According to the International Energy Agency (IEA), failing to meet the projected needed capacity from nuclear sources would place an additional burden on wind and solar sources for carbon free generation. Within the regional context, nuclear plays an important role in the US and Canada's energy grid, generating [19%](#) and [15%](#) of electricity, respectively. The banking sector plays a critical role to provide financing for high capital costs associated with large scale nuclear plants as well as to mobilize capital to support research and development (R&D) of advanced nuclear technologies for power generation.

The magnitude is moderate, balancing the long-term climate mitigation potential of low-carbon nuclear generation against the category's broad eligibility criteria and the potential inherent environmental and social externalities associated with nuclear projects. Under the category, the bank can finance a variety of investments related to nuclear energy, including construction and safe operation of new nuclear power plants; maintenance and refurbishment investments with the aim of extending the operating life of existing assets while improving their energy efficiency and/or operational safety; and R&D investments into nuclear technologies that minimize waste from the fuel cycle. We expect such projects will broadly provide a long-term positive benefit to the objective of climate change mitigation given nuclear power's role as a low-carbon fuel source that will aid in countries' decarbonization efforts while avoiding investments that lock-in greenhouse gas emissions.

Although nuclear energy's low-carbon credentials are positive, there are substantial potential environmental and social externalities associated with the operation of nuclear plants. These can include risks stemming from long-term radioactive waste management and disposal, water risks resulting from thermal anomalies from the discharge of heat to water bodies, as well as health and safety risks for plant workers and surrounding communities in the event of potential nuclear accidents. While these risks could be quite severe if realized, we note that nuclear accidents have been rare and the regulatory oversight of nuclear projects is typically comprehensive. In Canada, for example, oversight of nuclear projects covers the various stages of nuclear project development with relevant regulations derived from the [Nuclear Safety and Control Act](#), [Nuclear Energy Act](#), [Nuclear Fuel Waste Act](#) and [Nuclear Liability and Compensation Act](#).

While this type of extensive oversight provides assurance that the most severe inherent nuclear risks will be adequately managed, we note that implementation of regulatory risk controls may vary by region. For example, Canada is currently evaluating the construction of a deep geological repository for the safe, long-term management of used nuclear fuel in line with international best practices, but site location has not yet been confirmed.<sup>4</sup>

An additional consideration in the moderate magnitude score is the relatively broad nature of project eligibility for this category. While we note that the bank does not currently expect to finance nuclear projects under the framework in the next 18 months, and nuclear financing will account for no more than 10% allocation from any issuance under the framework, the lack of specificity limits visibility into whether the most advanced technologies and risk management practices will always be employed. For example, the bank indicates that potential projects may include small modular reactors (SMRs) and micro modular reactors (MMRs), technologies that would likely employ advanced approaches to efficiency and safety by limiting the amount of fuel needed and thus reducing the radioactive waste generated. However, the list of eligible asset types is not exhaustive and could include other types of nuclear technologies. Similarly, while the use of accident tolerant fuel (ATF) would be viewed favorably by the bank in terms of project evaluation, the framework does not require use of ATFs as an explicit eligibility criterion.

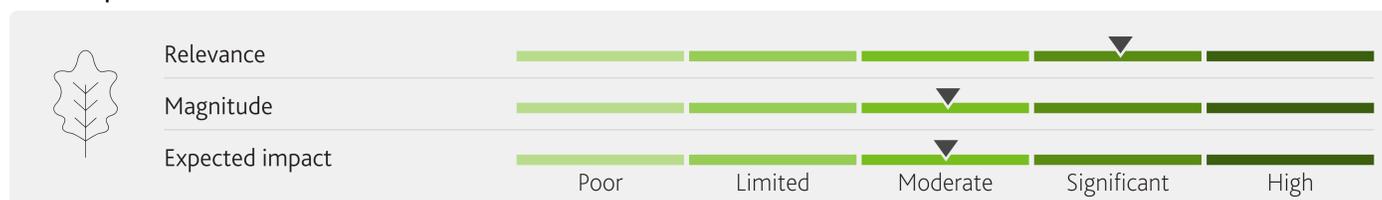
### Energy efficiency



Energy efficiency projects are highly relevant to reduce emissions from energy use in the local and global context. Building-related energy efficiency initiatives in particular have high relevance to advance decarbonization in the sector, where operational energy use accounts for a third of global final energy consumption.<sup>5</sup> Measures to promote energy savings and improvement in energy performance are pertinent to reduce energy-related emissions in the broader economy. Energy efficiency initiatives align and contribute to Canada's net zero emissions by 2050 goal and are cited by the IEA to be the single largest measure to avoid energy demand.

The magnitude of this category is significant. The bank has communicated that likely sectors to be financed under this category will include commercial and residential buildings, which are expected to comprise the bulk of investments in this category. Efficiency investments in the buildings sector will contribute to advancing decarbonization objectives related to the built environment. Financed projects adhere to a minimum 30% improvement in energy efficiency, defined as the reduction in energy consumption or GHG emissions over the baseline. Eligible projects include energy-efficient technologies, energy performance monitoring equipment and smart grid technologies. Other eligible projects include transmission lines and energy management and storage related to energy sourced from eligible types of renewable energy or with direct emissions less than 100gCO<sub>2</sub>e/kWh.

### Pollution prevention and control



Projects under this category are significantly relevant investments in the sector to mitigate emissions. Although waste represents a relatively modest share of emissions at 4% and 2.7% of total emissions in [Canada](#) and the [US](#), respectively, the absence of an effective waste management program can lead to harmful environmental externalities related to air and water pollution that may endanger human health. Projects focusing on waste recovery and treatment are important to reduce pollution, which in turn reduces emissions within the local and regional context.

We expect projects will likely have moderately positive environmental benefits. Although projects will likely reduce the negative effects from pollution, efforts focusing on waste reduction have stronger mitigation potential compared to recycling and waste to energy projects, according to the waste hierarchy. The bank aims to finance projects to collect and treat solid waste and waste materials and promote the recovery of non-hazardous waste through recycling efforts. The eligibility criteria includes mechanical recycling projects and excludes chemical recycling technologies. Although waste to energy facilities (outside the EU only) will have an emissions threshold of less than 100gCO<sub>2</sub>e/kWh, the thermal intensive nature of such facilities may carry inherent negative externalities. The broad description of waste to energy facilities in the category also limits visibility on whether projects will adhere to best market standards. However, the bank has communicated that it will review and incorporate best market standards and available technologies at the time of assessing potential projects to be financed. Favorably, the bank has also shared that it will review methane leakage mitigation plans with respect to alignment with applicable local regulatory requirements to minimize methane emissions.

### Sustainable management of natural resources



Sustainable forest management projects are highly relevant for the conservation, protection and restoration of ecosystems in the local and regional context. Canada aims to increase conserved terrestrial and freshwater areas to [30% by 2030](#) and preserve forest area through sustainable management practice. Similarly in the US, there is a nationwide conservation goal to conserve [30% of lands and waters by 2030](#).

The projects are likely to generate significant long-term environmental benefits. Projects to promote sustainable forest management practices must adhere to standards set by the Forest Stewardship Council, Programme for the Endorsement of Forest Certification, Sustainable Forest Initiative or equivalent to demonstrate responsible forest stewardship practices. Land-based mitigation measures such as in-situ conservation have the potential to reduce GHG emissions while offering other co-benefits such as biodiversity restoration. Afforestation and reforestation projects can also increase the carbon sink potential of forests. The significant magnitude captures the broad description of the eligible activities under sustainable management of forest holdings, which limits visibility on the extent of the likely benefits and potential externalities.

### Sustainable food and agriculture



Projects under this category are highly relevant to reduce emissions in the agriculture sector. Globally, the agriculture forestry and other land uses (AFOLU) sector is responsible for 21% of total net anthropogenic GHG emissions.<sup>5</sup> Roughly 10% and 11% of emissions in Canada and the US, respectively, are from crops and livestock production, excluding emissions from the use of fossil fuels or fertilizer production. The banking sector plays an important role to channel capital into programs to support sustainable agriculture production. According to BMO's [2022 climate report](#), agriculture is one of the bank's top three sectors contributing to Scopes 1 & 2 financed emissions at 15%, highlighting the need to reduce financed emissions through investments in this category.

The projects will likely generate significant long-term environmental impacts and avoid lock in effects. Eligible sustainable agricultural crop, fishery and aquaculture operations will require market recognized certifications, although the sustainability standards and requirements across certifications vary. We recognize some environmental externalities associated with fisheries farming, though this is likely managed through the adherence to relevant market certification. While each eligible project in the category will likely reduce agricultural emissions, the holistic use of sustainable agricultural practices across all financed projects would demonstrate stronger emission mitigation potential.

### Clean transportation



Projects in this category are highly relevant investments to decarbonize the transportation sector. Transportation was responsible for 23% of global carbon emissions in 2021.<sup>7</sup> In Canada and the US, fuel combustion from the transportation sector is responsible for nearly a third of each country's total emissions. According to the IEA, emissions from the road transport sector must decline by more

than 3% per year until 2030 to get on track with the net zero emissions by 2050 scenario, highlighting the relevance of the projects in support of decarbonization efforts.

The eligible assets will likely have a high magnitude in mitigating emissions through the use of best available technologies. The projects include zero direct emission vehicles for road and public transportation, pedestrian and biking infrastructure as well as charging stations and infrastructure dedicated to low-carbon transport. Freight transportation assets adhere to a market recognized threshold at 25gCO<sub>2</sub>e/km and the criteria of less than 25% transport of fossil fuels. The bank has shared that it will align with the ratcheting down of carbon intensity levels in line with a net zero pathway for eligible freight assets, and it expects such assets will comprise a small share of investments under this category.

### Sustainable water and wastewater management



Global demand for freshwater is predicted to exceed supply by 40% by 2030 with severe shortages in water-constrained regions.<sup>8</sup> Projects supporting the sustainable management of water are significantly relevant investments to address water stress risks that may be more prevalent within certain areas in Canada and the US. These risks are amplified in the context of demographic growth and climate change, highlighting the need to improve water quality, efficiency and conservation strategies.

The category will likely have moderately positive impact in its contribution to the climate objectives. Eligible water projects must demonstrate a 30% improvement in energy performance compared to baseline, which is above market standards. However, the broad definition of eligible desalination projects limits our view of the expected impact of such projects. Financed desalination plants under the framework will include plants that are powered by renewables or where the carbon intensity is at or below 100gCO<sub>2</sub>e/kWh. The bank has shared that the selection and evaluation of eligible desalination projects include a review of brine disposal management and mitigation of associated environmental externalities at the project level.

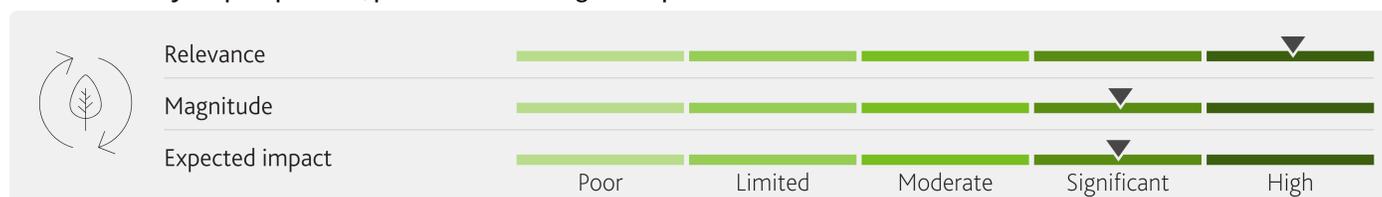
### Climate change adaptation



Projects in this category are highly relevant to reduce the vulnerability of infrastructure in the face of rising climate change risks. Although exposure to physical risks in Canada and the US is relatively low at the national level, some regions and sectors in both countries experience higher exposure to climate hazards, highlighting the need for adaptation financing.

The magnitude is significant as projects will likely have long-term environmental benefits to climate change adaptation. The eligible projects include infrastructure to improve adaptability of assets to physical climate risks such as flood defense systems and early warning systems to minimize service disruptions. Other eligible projects include wildfire mitigation and management activities, as well as non-fossil fuel back-up generation and storage. Given the broad descriptions of eligible projects, however, the category lacks visibility on whether the adaptation infrastructure will follow the best available practices to mitigate the specific climate risk.

### Circular economy adapted products, production technologies and processes



Projects under this category are highly relevant investments to increase circularity efforts within the product chain. Plastics, paper, glass, metals, wood and textiles together represent about 60% of waste landfilled in the US,<sup>9</sup> highlighting the need to improve product circularity efforts to reduce waste disposal. The contemplated projects focus on recyclability and reusability efforts which are highly relevant strategies to improve circularity and thereby reduce waste emissions and associated environmental externalities.

The projects will likely have a significant magnitude and include credible market recognized certifications to promote sustainable packaging. We view favorably the criteria for the substitution of virgin raw materials with 100% secondary materials from recycled or reused materials such as fabrics, metals, fibres, wood, and mechanically recycled plastics to improve the circularity of products and reduction in landfill waste. The category also includes projects that promote the recovery and recyclability of metals such as copper, aluminum and steel which have the potential of minimizing emissions from the raw extraction of materials and enhance resource efficiency. Other eligible projects include investments in product lifecycle processes that improve their usable life and reparability. Although the category includes financing of credible strategies across various circular economy elements, we do not have visibility on the distribution of proceeds among these elements, especially with respect to the avoidance and prevention of waste, which would be considered the most favorable action in terms of waste management.

### Green buildings and infrastructure



The relevance of this category is high. According to the IEA, operational energy use in buildings account for a third of global final energy consumption and is responsible for 26% of global energy related emissions, primarily for the consumption of heat and electricity.<sup>10</sup> Electricity related building emissions account for substantial shares at 18% and 30% of the total 2021 emission inventory in Canada and the US, respectively, highlighting the need for further investments in green sustainable building construction.

The magnitude is significant. The bank has shared that buildings are expected to be at least 30% energy-efficient compared to a baseline which is in line with market best standards. Although buildings with credible green building certifications are financed, not all buildings will be certified to the best market standard (e.g., LEED Platinum). The magnitude score also incorporates the higher share of proceeds supporting new buildings as opposed to retrofitting of existing buildings.

### Carbon capture utilization and storage (CCUS)



The relevance of the category is significant. According to the IEA, announced CCUS projects that are scheduled to be operating by 2030 have a capture capacity of just 10% of the 1.2Gt CO<sub>2</sub> per year that is required under a net zero by 2050 scenario.<sup>11</sup> The current capacity shortage indicates a financing need to invest and scale CCUS projects. While CCUS projects may play an important role to support the decarbonization pathway of hard to abate sectors, CCUS may not be the most relevant solution for some sectors where the net zero pathway is more feasible through electrification and/or through the adoption of renewables.

The CCUS investments will likely have a moderate expected impact. Eligible projects will demonstrate a capture rate of 90%, in line with market standards, and will exclude enhanced oil recovery activities. Captured carbon transportation assets are also excluded from this category. While these project features are positive, lock-in effects from existing fossil assets may be present because of broad sector eligibility for CCUS projects under the framework. However, the bank has shared that potential companies will be required to comply with the transition criteria under the ICMA's CTFH guidelines, under which the bank would evaluate the ambition of companies' decarbonization targets against science-based criteria.

**Low carbon fuels**



Investments to support the uptake of low carbon fuels are highly relevant solutions to decarbonize emissions from certain hard-to-abate sectors, especially aviation and maritime shipping. Low carbon fuels represent less than 5% of energy supply in Canada and are projected to provide 60% or more of national energy demand under Canada's net zero by 2050 goal.<sup>12</sup> Banks play a critical role to support the growth, development and uptake of low carbon fuels to curb emissions and to support alignment with a net zero by 2050 pathway. The bank has shared that it will likely finance projects in this category under transition-labeled instruments as opposed to green-labeled instruments.

The low carbon fuel thresholds in this category align with Natural Resources Canada's Clean Fuels Program which will support the development of fuels under the national regulatory framework. Although the projects will likely reduce negative impacts, the magnitude is limited because the category allows for financing of some low carbon fuels that do not meet the most stringent market thresholds, heightening risks of locking in carbon emissions. For example, the carbon intensity thresholds for hydrogen, ethanol, renewable diesel, renewable natural gas and synthetic fuel at 50gCO<sub>2</sub>e/MJ (for liquid fuel) and 36g CO<sub>2</sub>e/MJ (for gaseous fuel) are comparatively higher than CBI's criteria of 18.8g CO<sub>2</sub>e/MJ for facilities producing biofuel for transport and 16gCO<sub>2</sub>e/MJ for heating/cooling and co-generation.

For sustainable aviation fuels (SAF), we view favorably the threshold of limiting lifecycle emissions to 65% from a comparative fossil equivalent. However, the category lacks visibility of the eligible types of SAF and biofuel feedstock, which increases risks related to sustainable sourcing and potential use of first generation feedstocks. We expect this risk to be somewhat managed through the bank's selection criteria that includes safeguards for feedstocks that avoid negative impacts on biodiversity and land use change.

Finally, the category includes the financing of blue hydrogen with thresholds at 36.4gCO<sub>2</sub>e/MJ, or 60% below the intensity of hydrogen produced from natural gas. Although the threshold aligns with the CertifHY's recommended criteria for low-carbon hydrogen, the inclusion of blue hydrogen produced using natural gas with CCUS carries lock-in effects and does not adhere to the best-in-class approach for low-carbon hydrogen production.

**Production efficiency**



Investments under this category are significantly relevant overall for the sectors to which projects will be applied. The contemplated steel and cement projects in the framework provide relevant solutions to decarbonize these sectors. However, the category also includes methane capture retrofit of an existing natural gas production facility. While this project will contribute to decarbonizing this type of facility, natural gas production will have to contract substantially under a net zero by 2050 pathway, according to the IEA. Still, the overall production efficiency strategies under this category remain important solutions to decarbonize hard to abate sectors.

The magnitude is moderate reflecting the relative strengths and weaknesses of each project within the category. For the steel sector, eligible projects include the electrification of a steel facility. The facility must comply with a carbon intensity production threshold of below 1.8tCO<sub>2</sub>e/t steel produced for Scopes 1 and 2 emissions until 2030 which is aligned with the carbon intensity pathway under an IEA net zero trajectory, according to CBI's sector criteria.

For the cement sector, the bank has set a carbon intensity threshold of 0.35tCO<sub>2</sub>e/t cement produced which is currently aligned with a net zero by 2050 pathway. The bank has communicated that it will also align with the continued ratcheting down of market accepted carbon intensities in line with a net zero pathway. The bank plans to finance an array of strategies to achieve the intensity threshold such as the use of low carbon fuels and alternative materials that can improve the clinker to cement ratio.

The category also includes methane capture retrofits at natural gas facilities, investments which carry considerable risks related to the locking in of carbon emissions. The bank's selection criteria include some mitigating considerations, however, such as the requirement that potential facilities make a full switch to renewable or low-carbon fuels by 2036 and a focus on facilities that serve as a backup energy source to support the intermittency of renewables.

### Affordable housing



According to national statistics, one of five Canadian households live in unaffordable housing, defined as spending 30% or more of before-tax household income on shelter.<sup>13</sup> In the US, the shortage of affordable and available homes disproportionately affects extremely low income households across all states and in the 50 largest metro areas. Although Canada and the US broadly benefit from strong access to housing when compared with other countries on a global scale, there are vulnerable areas within both jurisdictions with housing deficits that have constrained housing affordability for many residents. This highlights the still relevant need to deploy affordable housing solutions to expand access in affected areas. Banks, through their participation in programs such as Canada's Affordable Housing initiative of the Canadian Mortgage and Housing Corporation and the Community Reinvestment Act in the US, play a critical role to support affordable housing initiatives through its financial intermediary role in the market.

The magnitude is significant because the programs will provide structural improvement to the housing challenges faced by a vulnerable population. The bank has shared that the eligibility of the target population is determined according to local jurisdiction guidelines for low to moderate income individuals. The bank's EMpower 2.0 program supports its affordable housing initiative in which the bank has supported the creation of 18,800 affordable housing units and provides lending to communities of color, defined as communities where more than 50% of the population is identified as minorities according to the US Census. While the projects provide housing solutions to a vulnerable population, the category does not exclusively target the housing needs of the most vulnerable within the income band or within the communities of color group identified.

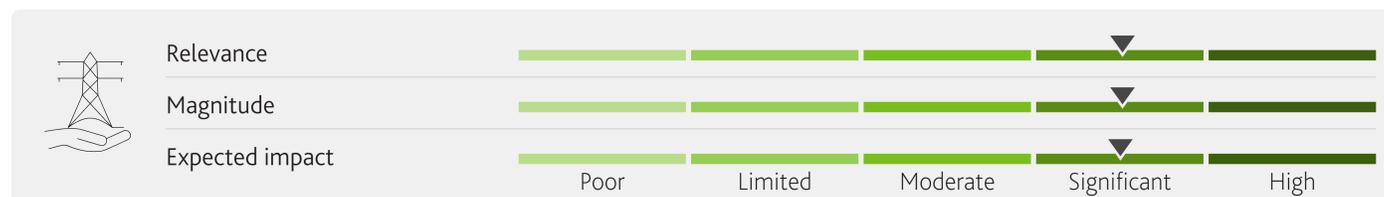
### Access to essential services



The project category has significant relevance. The provision of essential services is not a major social challenge in Canada and the US as both countries benefit from strong institutions, resources and programs for healthcare and education in line with those of other advanced economies. Still, continued investments in the social infrastructure will be critical in maintaining quality of services in Canada and the US.

The magnitude of projects is significant because the projects will likely benefit a vulnerable target population over the long term. The bank plans to primarily finance public health and education facilities which provides reasonable assurance of the affordability of services. However, more specific affordability programs for the benefit of the target population can drive higher social impact. The bank has also shared that projects will be prioritized in target areas in most need which improves the accessibility of essential services.

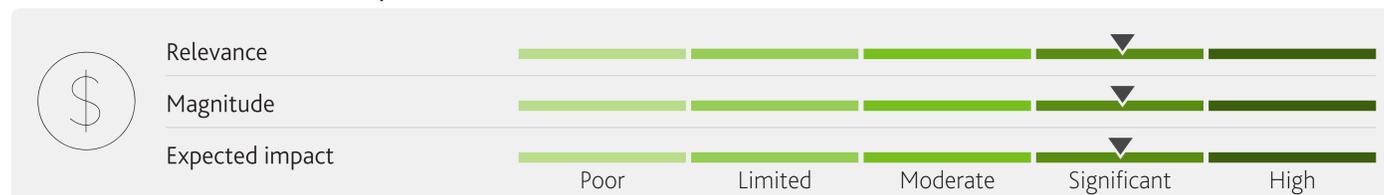
#### Affordable basic infrastructure



The relevance of the project category is significant because the projects will likely improve access to basic infrastructure for underserved and remote communities. Although the projects address a relevant social challenge, access to basic services such as clean water, sanitation and energy are not critical issues in advanced economies compared with developing economies, as the former typically benefit from stronger existing infrastructure and national programs to guarantee the provision of basic services to its population.

The magnitude of the projects is significant. The bank will use definitions provided by relevant government agencies in the local area as well as national census data to identify rural communities and the target income level population. Although the affordability criteria for services have not been set for projects related to access to clean drinking water, sanitation and clean energy, the bank aims to primarily invest in public regulated utilities which provides minimum safeguards on the affordability and quality of services.

#### Socioeconomic advancement and empowerment



The relevance for this project category is significant. Although financing of micro, small and medium enterprises (MSMEs) will provide a solution that addresses a highly important social issue for the banking sector, there is a lower need for MSME support in advanced economies compared with developing economies. Nevertheless, loans directed to MSMEs that are owned 51% or greater by women, Indigenous Peoples, and people of color are important to support their growth, financial inclusion and participation in the national economy.

The magnitude is significant. The bank has confirmed that pure play lending and financings under this category will comply with the eligibility and exclusion criteria of the framework. The bank offers financial literacy services as part of the lending package which provides empowerment to the target population. The significant magnitude also captures the eligibility of loans issued to non-SMEs, or businesses of any revenue size where the company is at least 51% owned by the target population. This may not necessarily benefit the most vulnerable group in the broader economy. Favorably, the bank has shared that it will prioritize lending to micro and small enterprises owned by the target population, which provides some assurance on the degree of the likely long term social impacts.

#### ESG risk management

We have not applied a negative adjustment for ESG risk management to the expected impact score. BMO has a robust ESG risk management in place, integrating ESG into its existing risk management framework. As detailed in the sustainable bond framework, all eligible assets will be subject to the bank's applicable environmental and social risk management policies. In addition, the bank has developed a sector guidance for nuclear lending activities, which requires enhanced due diligence for these assets. BMO is a signatory to and a participant in key global initiatives that advance transparency and disclosures in sustainability. The bank's ESG reporting is informed by several global sustainability disclosure standards, frameworks and initiatives including, but not limited to, the TCFD (now maintained by the International Sustainability Standards Board starting in 2024), CDP, the Equator Principles, the Partnership for

Carbon Accounting Financials, the Sustainability Accounting Standards Board, the Global Reporting Initiative, the UN Principles for Responsible Banking and the Sustainable Development Goals (SDGs).

### Coherence

We have not applied a negative adjustment for coherence to the expected impact score. Projects to be financed under BMO's framework align with the bank's overall sustainability objectives and ESG strategy. As a signatory to the Net-Zero Banking Alliance (NZBA), the bank commits to achieve a net zero financed emissions goal by 2050 across its lending portfolio. Green and transition category projects under the framework align with the bank's commitment to support the broader economy's transition to a lower carbon and climate resilient pathway. Projects to be financed under the social categories also support the bank's broader social commitments, by providing banking services that support the creation of resilient communities through equitable growth and financial inclusion.

## Appendix 1 — Mapping eligible categories to the United Nations' Sustainable Development Goals

The 18 eligible categories included in BMO's framework are likely to contribute to 14 of the United Nations' Sustainable Development Goals (SDGs), namely:

UN SDG 17 Goals	Eligible Category	SDG Targets
GOAL 2: Zero Hunger	<i>Sustainable food and agriculture</i>	2.4: Ensure sustainable food production systems that improve productivity and support ecosystems and climate change adaptation
GOAL 3: Good Health and Well-being	<i>Access to essential services</i>	3.8: Achieve universal health coverage with access to quality and affordable essential health-care services and medicines for all
GOAL 4: Quality Education	<i>Access to essential services</i>	4.4: Increase the number of youth and adults with technical and vocational skills for employment and entrepreneurship 4.5: Eliminate gender disparities in education and ensure equal access to education and training for vulnerable persons 4.A: Build and upgrade education facilities that provide safe and effective learning environments for all
GOAL 5: Gender Equality	<i>Socioeconomic advancement and empowerment</i>	5.A: Establish women's equal rights to economic resources, access to ownership and control over property and financial services
GOAL 6: Clean Water and	<i>Affordable basic infrastructure</i>	6.1: Achieve universal and equitable access to safe and affordable drinking water for all
	<i>Sustainable water and wastewater management</i>	6.4: Increase water-use efficiency across all sectors and ensure sustainable supply of freshwater to reduce water scarcity
GOAL 7: Affordable and	<i>Affordable basic infrastructure</i>	7.1: Ensure universal access to affordable, reliable and modern energy services
	<i>Nuclear energy;</i>	7.2: Increase substantially the share of renewable energy in the global energy mix
	<i>Renewable energy</i>	
	<i>Energy efficiency;</i>	7.3: Double the global rate of improvement in energy efficiency
	<i>Green buildings and infrastructure;</i>	
	<i>Production efficiency</i>	
	<i>Carbon capture utilization and storage;</i>	7.A: Enhance international cooperation and promote investment for clean energy infrastructure, research and technology
	<i>Low-carbon fuels</i>	
GOAL 8: Decent Work and Economic Growth	<i>Socioeconomic advancement and empowerment</i>	8.3: Promote policies that support productivity, job creation, entrepreneurship, innovation, and encourage the growth of SMEs 8.10: Strengthen the capacity of domestic financial institutions to expand access to insurance and financial services for all
	<i>Circular economy adapted products, production technologies and processes</i>	8.4: Improve global resource efficiency and endeavour to decouple economic growth from environmental degradation
GOAL 9: Industry, Innovation and Infrastructure	<i>Production efficiency</i>	9.4: Upgrade infrastructure and retrofit industries to make them sustainable, with all countries taking action
GOAL 10: Reduced Inequality	<i>Affordable housing;</i> <i>Access to essential services;</i> <i>Affordable basic infrastructure;</i> <i>Socioeconomic advancement and empowerment</i>	10.2: Empower and promote the social, economic and political inclusion of all
GOAL 11: Sustainable Cities and Communities	<i>Affordable housing</i>	11.1: Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
	<i>Clean transportation</i>	11.2: Provide access to safe, affordable, accessible and sustainable transport systems for all
	<i>Pollution prevention and waste management</i>	11.6: Reduce the adverse per capita environmental impact of cities, with special attention to air quality and waste management
	<i>Access to essential services</i>	11.7: Provide universal access to safe and inclusive green and public spaces for all
	<i>Climate change adaptation</i>	11.B: Increase number of cities with plans towards inclusion, resource efficiency, and climate change and disaster resiliency
GOAL 12: Responsible Consumption and Production	<i>Sustainable food and agriculture;</i> <i>Sustainable management of natural resources;</i> <i>Sustainable water and wastewater management</i> <i>Pollution prevention and waste management</i>	12.2: Achieve the sustainable management and efficient use of natural resources
	<i>Circular economy adapted products, production technologies and processes</i>	12.4: Achieve environmental management of chemicals and all wastes, and reduce their release to air, water and soil 12.5: Substantially reduce waste generation through prevention, reduction, recycling and reuse
GOAL 13: Climate Action	<i>Climate change adaptation</i>	13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
GOAL 14: Life Below Water	<i>Sustainable food and agriculture</i>	14.2: Sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts
GOAL 15: Life on Land	<i>Sustainable management of natural resources</i>	15.2: Promote the implementation of sustainable management of all types of forests

The United Nations' Sustainable Development Goals (SDGs) mapping in this SPO considers the eligible project categories and associated sustainability objectives/benefits documented in the issuer's financing framework, as well as resources and guidelines from public institutions, such as the ICMA SDG Mapping Guidance and the UN SDG targets and indicators.

## Appendix 2 — Summary of eligible categories in BMO's framework

Eligible categories	Project Description	Sustainability objectives	Impact reporting indicators
Renewable energy	<p>Acquisition, development, manufacturing, construction, operation, transmission, distribution and maintenance of renewable energy assets (i.e., equipment, infrastructure and facilities) such as:</p> <ul style="list-style-type: none"> <li>• Offshore &amp; onshore wind</li> <li>• Solar photovoltaic</li> <li>• Waste biomass and renewable biofuels whose sources include sustainable agriculture and forestry residues with direct emissions &lt;100gCO<sub>2</sub>/kWh</li> <li>• Tidal power</li> <li>• Hydrogen generation using renewable energy</li> <li>• Geothermal energy with direct emissions &lt;100 grams of CO<sub>2</sub>/kWh</li> <li>• Run-of-river and small-scale hydroelectricity facilities that meet emission intensity and power density requirements</li> <li>• Refurbishment of existing hydroelectricity facilities, provided the size of the dam or reservoir are not increased</li> </ul>	Climate change mitigation	<ul style="list-style-type: none"> <li>• Annual GHG emissions reduced/avoided (tCO<sub>2</sub>e)</li> <li>• Annual renewable energy generated (MWh for electricity; GJ/TJ for other energy)</li> <li>• Additional capacity of renewable energy plant(s) constructed or rehabilitated (MW)</li> </ul>
Nuclear energy	<ul style="list-style-type: none"> <li>• Research, development, demonstration, construction, deployment and safe operation of technologies that produce energy from nuclear processes with minimal waste from the fuel cycle, for purposes of generating electricity or heat, including for hydrogen production</li> <li>• Construction and safe operation of new nuclear power plants, for the generation of electricity and/or heat, including for hydrogen production</li> <li>• Investments associated with operating life extension and/or efficiency enhancement of existing nuclear energy facilities, including maintenance and/or refurbishment with the purpose of increasing operational life span while maintaining or improving the level of operational safety</li> </ul>	Climate change mitigation	<ul style="list-style-type: none"> <li>• Annual GHG emissions reduced or avoided (tCO<sub>2</sub>e)</li> <li>• Annual nuclear energy generation (kWh)</li> <li>• Additional capacity of nuclear energy plant(s) constructed or rehabilitated (MW)</li> </ul>
Energy efficiency	<p>Construction, retrofitting, manufacturing of technologies or equipment that increase energy efficiency and/or reduce energy consumption or mitigate greenhouse gas (GHG) emissions by 30% or more over the baseline, including:</p> <ul style="list-style-type: none"> <li>• Energy-efficient lighting, heating and cooling, ventilation, performance monitoring and demand management systems</li> <li>• Energy management and storage facilities or infrastructure</li> <li>• Energy performance monitoring equipment</li> <li>• Smart grid technology for energy generation, storage, transmission and distribution</li> </ul>	Climate change mitigation	<ul style="list-style-type: none"> <li>• Annual energy savings (MWh for electricity; GJ/TJ for other energy)</li> <li>• Annual GHG emissions reduced/avoided (tCO<sub>2</sub>e)</li> </ul>
Pollution prevention and waste management	<p>Activities, equipment, services and infrastructure that support:</p> <ul style="list-style-type: none"> <li>• Collection, sorting, treatment, and transportation of contaminated solid waste and waste materials</li> <li>• Recycling processes and facilities</li> <li>• Composting &amp; anaerobic digestion</li> <li>• Thermal treatment with energy recovery of residual waste</li> </ul>	Pollution prevention and control	<ul style="list-style-type: none"> <li>• Waste that is prevented, minimized, reused or recycled before and after the project (% of total waste and/or in tonnes)</li> <li>• Annual absolute (gross) amount of waste that is separated and/or collected, and treated (including composted) or disposed of (in tonnes and in % of total waste)</li> </ul>
Sustainable management of natural resources	<p>Conservation, afforestation, reforestation and/or sustainable management of forest holdings or other nature-based assets, such as:</p> <ul style="list-style-type: none"> <li>• Forests certified under the Forest Stewardship Council ("FSC") certification, Programme for the Endorsement of Forest Certification ("PEFC"), Sustainable Forest Initiative ("SFI"), or equivalent</li> <li>• Afforestation or reforestation of native forests</li> </ul>	Natural resource conservation	<ul style="list-style-type: none"> <li>• Area covered by soil conservation measures and land use change (ha)</li> <li>• Avoided and/or sequestered GHG emissions (tCO<sub>2</sub>e)</li> </ul>

Eligible categories	Project Description	Sustainability objectives	Impact reporting indicators
Sustainable food and agriculture	<p>Food production, including agricultural crop, fishery and aquaculture operation, certified with:</p> <ul style="list-style-type: none"> <li>• Canada Organic</li> <li>• USDA Organic</li> <li>• Round Table on Responsible Soy Association Standard (RTRS)</li> <li>• Marine Stewardship Council, Aquaculture Stewardship Council</li> <li>• Global G.A.P for Aquaculture</li> <li>• Best Aquaculture Practices (2 stars or more)</li> </ul> <p>Agricultural activities, facilities and technologies that improve resource use efficiency including energy and water, and/or reduce GHG emissions, or improve climate resilience, such as:</p> <ul style="list-style-type: none"> <li>• Advanced irrigation technologies</li> <li>• Precision farming</li> <li>• Protected agriculture</li> <li>• Use of smart seeds, natural pesticides and herbicides, including Rainforest Alliance certified biological crop protection</li> <li>• Regenerative agriculture activities, including no-till farming and cover cropping</li> </ul> <p>Activities that advance sustainable production and consumption of alternative proteins</p>	Natural resource conservation	<ul style="list-style-type: none"> <li>• Increase in area under certified organic or sustainable agriculture (ha and % of acreage farmed)</li> <li>• Increase in feedstock supply chain certification coverage (% of total feedstock volume)</li> <li>• Increase of sustainable seafood production (tonnes)</li> <li>• Number of greenhouses financed</li> </ul>
Clean transportation	<p>Research and development, manufacturing, procurement, maintenance, operations, and leasing of low carbon transport assets and related infrastructure such as:</p> <ul style="list-style-type: none"> <li>• Electric, hydrogen, or other zero-direct emissions transport - including private vehicles, public transport vehicles, passenger trains</li> <li>• Freight transportation vehicles with direct emissions less than 25gCO<sub>2</sub>e/km</li> <li>• Electric or hydrogen freight rail, for which &lt;25% of its freight is fossil fuels</li> <li>• Electric charging and hydrogen fueling infrastructure</li> <li>• Public walking and bicycle infrastructure</li> </ul> <p>Transportation infrastructure, including expansions and capacity improvements of metro/train networks and station upgrades</p>	Climate change mitigation	<ul style="list-style-type: none"> <li>• Annual GHG emissions reduced/avoided (tCO<sub>2</sub>e)</li> <li>• Number of clean vehicles deployed (e.g., electric)</li> <li>• Estimated reduction in fuel consumption</li> <li>• Estimated reduction in car/truck use (in number of kilometers driven or as share of total transport ridership)</li> </ul>
Sustainable water and wastewater management	<p>Activities, technologies and projects that improve quality, efficiency, reliability and conservation of water consumption and clean drinking water, such as:</p> <ul style="list-style-type: none"> <li>• Collection, treatment, recycling or reuse of water</li> <li>• Storm water management</li> <li>• Water metering activities</li> <li>• Water capture and storage infrastructure, including storm water management systems, water distribution systems, aquifer storage and sewer systems</li> </ul>	Sustainable water and wastewater management; Pollution prevention and control	<ul style="list-style-type: none"> <li>• Annual absolute (gross) water use before and after the project (in m<sup>3</sup>, reduction in water use in %)</li> <li>• Annual absolute (gross) amount of wastewater treated, reused or avoided before and after the project (m<sup>3</sup> and as %)</li> <li>• Number of people with access to improved sanitation facilities under the project</li> </ul>
Climate change adaptation	<p>Investments that improve the climate resilience of assets, systems, value chain and communities:</p> <ul style="list-style-type: none"> <li>• Upgrading of infrastructure to be climate resilient</li> <li>• Infrastructure projects for flood prevention and/or flood defense</li> <li>• Information and communications technology that improves climate monitoring and data collection, such as early warning systems</li> <li>• Non fossil fuel back up generation and storage</li> <li>• Wildfire mitigation and management activities</li> </ul>	Climate change adaptation	<ul style="list-style-type: none"> <li>• Increase in grid resilience, energy generation, transmission, distribution and storage (MWh)</li> <li>• Reduction in repair costs due to storms (to all kinds of infrastructure and assets)</li> <li>• Area covered by wildfire mitigation and management activities (km<sup>2</sup>)</li> </ul>

Eligible categories	Project Description	Sustainability objectives	Impact reporting indicators
Circular economy adapted products, production technologies, and processes	<p>Businesses and projects that promote circular economy activities, such as:</p> <ul style="list-style-type: none"> <li>• Substitution of virgin raw materials with 100% secondary (recycled or reused waste) materials (e.g., fabrics, metals, fibres, wood and mechanically recycled plastics) in manufacturing and industrial processes</li> <li>• Production of products that can be recycled or composted where the input feedstock is from recycled/reused waste</li> <li>• Development, manufacturing and distribution of sustainable packaging certified by a recognized third-party certification such as the FSC, PEFC, SFI and Recycled Paperboard Alliance ("RPA 100")</li> <li>• Minerals-based materials recovery or recycling in mining and industrial materials processes post-production</li> <li>• Investments in product lifecycle processes (including design and materials) that improve their usable life and repairability</li> </ul>	Natural resource conservation	<ul style="list-style-type: none"> <li>• The annual % increase in materials, components and products that are reusable, recyclable, and/or certified compostable as a result of the project and/or in absolute amount (tonnes)</li> <li>• The annual % and/or absolute amount of virgin raw materials that are substituted by secondary raw materials and by-products from manufacturing processes (tonnes)</li> <li>• The expected extension of lifetime in years (compared to the equivalent linear product's expected lifetime)</li> <li>• The increase in number of products and/or the share of production awarded an internationally recognised eco-label, or energy, eco-efficiency or other relevant environmental certification</li> </ul>
Green buildings and infrastructure	<p>Construction, acquisition, operation, maintenance or refurbishment of public, commercial or residential buildings that have:</p> <ul style="list-style-type: none"> <li>• Received, or expect to receive based on their design, construction and operation plans, certification according to third-party verified building standards, including LEED (Gold or Platinum), BOMA BEST (Gold or better), BREEAM (Excellent or better), ENERGY STAR (score of 85 or higher) or the relevant municipal green building standards (beyond mandatory levels)</li> </ul>	Climate change mitigation	<ul style="list-style-type: none"> <li>• Sustainability certifications achieved</li> <li>• Building area certified (in square feet or as % of total building area)</li> </ul>
Carbon capture utilization and storage ("CCUS")	Acquisition, research, development, construction, installation, operation and maintenance of CCUS technologies	Climate change mitigation	<ul style="list-style-type: none"> <li>• Annual GHG emissions reduced/avoided (tCO<sub>2</sub>e)</li> <li>• Number of CCUS projects supported and the associated annual GHG emissions stored (tCO<sub>2</sub>e)</li> </ul>
Low-carbon fuels	<p>Development, manufacture, equipment and distribution of low carbon fuels and waste-to-energy pathways that enables a reduction of the carbon intensity of fuels, including, but not limited to:</p> <ul style="list-style-type: none"> <li>• Hydrogen, ethanol, renewable diesel, co-processing of biocrude, sustainable aviation fuel, synthetic fuel and renewable natural gas compliant with the appropriate carbon intensity thresholds set by national jurisdictions or a sectoral decarbonization pathway, such as: <ul style="list-style-type: none"> <li>- Natural Resources Canada's ("NRCan") Clean Fuels Program carbon intensity thresholds defined as follows: <ul style="list-style-type: none"> <li>o Carbon intensity of eligible liquid clean fuels equal to or below 50gCO<sub>2</sub>e/MJ; and</li> <li>o Carbon intensity of eligible gaseous clean fuels equal to or below 36gCO<sub>2</sub>e/MJ</li> </ul> </li> <li>- Lifecycle emissions reduction threshold of 65% for Sustainable Aviation Fuels produced in Europe per the EU Taxonomy</li> </ul> </li> <li>• Low carbon marine fuels such as renewable electricity based marine fuels in the form of hydrogen or ammonia with no direct emissions, e-methanol, e-gas oil and electricity for use in batteries, bio-diesel and bio-methane, Liquefied Natural Gas in alignment with the International Marine Organization's goal and Poseidon Principles trajectory</li> <li>• Blue hydrogen that aligns with the CertifHy's recommended threshold for Carbon Intensity for green and low carbon hydrogen, which is set at a 60% below the intensity of hydrogen produced from natural gas (currently set at 36.4gCO<sub>2</sub>e/MJ)</li> </ul>	Climate change mitigation	<ul style="list-style-type: none"> <li>• Annual GHG emissions reduced/avoided (tCO<sub>2</sub>e)</li> <li>• Volume of low-carbon fuel developed/manufactured litres or kg)</li> </ul>

Eligible categories	Project Description	Sustainability objectives	Impact reporting indicators
Production efficiency	<ul style="list-style-type: none"> <li>• Electrification of an existing steel production facility with an intensity of <math>\leq 1.8</math> tCO<sub>2</sub>e/t steel until 2030</li> <li>• Methane capture retrofit of an existing natural gas production facility with an intensity of <math>\leq 270</math>gCO<sub>2</sub>e/kWh with a plan to transition to renewable or low-carbon fuel by 2036</li> <li>• Construction, retrofit, operation and maintenance of cement manufacturing facilities that use alternative fuels, integrate waste-derived additions, improve heat consumption of kilns and waste diversion</li> </ul>	Climate change mitigation	<ul style="list-style-type: none"> <li>• Annual GHG emissions reduced/avoided (tCO<sub>2</sub>e)</li> <li>• Number of methane capture retrofits supported and the associated annual methane emissions captured (tCO<sub>2</sub>e)</li> </ul>
Affordable housing	Construction, development, operation or refurbishment of housing that meets accredited or registered affordable housing definitions, or contributes to access to low- and moderate-income residents.	Affordable housing	<ul style="list-style-type: none"> <li>• Number of affordable housing units built or refurbished</li> <li>• Number of people with access to <u>affordable housing</u></li> </ul>
Access to essential services	<p>Activities enabling or facilitating the provision of essential social services, such as:</p> <ul style="list-style-type: none"> <li>• Public universities, schools and training centres;</li> <li>• Activities that expand youth and adult access to education and/or target inclusion of women and minorities such as technical, vocational and tertiary educational schemes;</li> <li>• Construction of educational facilities or training infrastructure;</li> <li>• Public hospitals, medical equipment, and homes or care facilities for the socioeconomically vulnerable populations, such as seniors, people with disabilities, homeless, survivors of domestic violence and refugees;</li> <li>• Activities that support employment agencies and professional employer organizations for underserved or unemployed populations; and</li> <li>• Public spaces such as public libraries and parks</li> </ul>	Access to essential services	<ul style="list-style-type: none"> <li>• Number of educational institutions funded, location and type</li> <li>• Number of students supported</li> <li>• Number of healthcare beds provided</li> <li>• Number of hospital and other healthcare facilities built or upgraded</li> <li>• Number of health patients served</li> <li>• Number of public spaces funded</li> </ul>
Affordable basic infrastructure	Development, construction, revitalization or improvement of basic infrastructures for low- and moderate-income or rural communities, including, but not limited to access to clean drinking water, sanitation and clean energy.	Affordable basic infrastructure	<ul style="list-style-type: none"> <li>• Additional people served by infrastructure type (#)</li> </ul>
Socioeconomic advancement and empowerment	<p>Lending and financing to:</p> <ul style="list-style-type: none"> <li>• Micro-, small- and medium-sized enterprise (MSME) where at least 51% of the owners of the enterprise is a member of historically underrepresented target populations such as women, Indigenous, Native Americans or People of Colour;</li> <li>• Non-SME where at least 51% of the owners are from the above target populations; and</li> <li>• Indigenous Peoples' band, council, government</li> </ul>	Socioeconomic advancement and empowerment	<ul style="list-style-type: none"> <li>• Number of loans provided</li> <li>• Value of loans provided (\$)</li> <li>• Number of jobs supported</li> <li>• Number of eligible businesses financed</li> </ul>

## Endnotes

- [1](#) Point-in-time assessment is applicable only on date of assignment or update.
- [2](#) International Energy Agency, [Net Zero by 2050](#), October 2021.
- [3](#) Ibid.
- [4](#) [Canada's deep geological repository](#), The Nuclear Waste Management Organization, accessed March 2024.
- [5](#) International Energy Agency, [Buildings](#), 11 July 2023.
- [6](#) Intergovernmental Panel on Climate Change, [Agriculture Forestry and Other Land Uses](#), accessed February 2024.
- [7](#) International Energy Agency, [Greenhouse Gas Emissions from Energy Data Explorer](#), 2 August 2023.
- [8](#) The Global Commission on the Economics of Water, [Turning the Tide: A Call to Collective Action](#), March 2023.
- [9](#) US Environmental Protection Agency, National Overview: [Facts and Figures on Materials, Wastes and Recycling](#), accessed February 2024
- [10](#) International Energy Agency, [Buildings](#), accessed February 2024.
- [11](#) International Energy Agency, [Carbon Capture, Utilisation and Storage](#), accessed February 2024.
- [12](#) Natural Resources Canada, [Clean fuels- fueling the future](#), accessed February 2024.
- [13](#) [Housing costs and affordability](#), Government of Canada.

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