2021 Report on Sustainable Investing



CPP Investments

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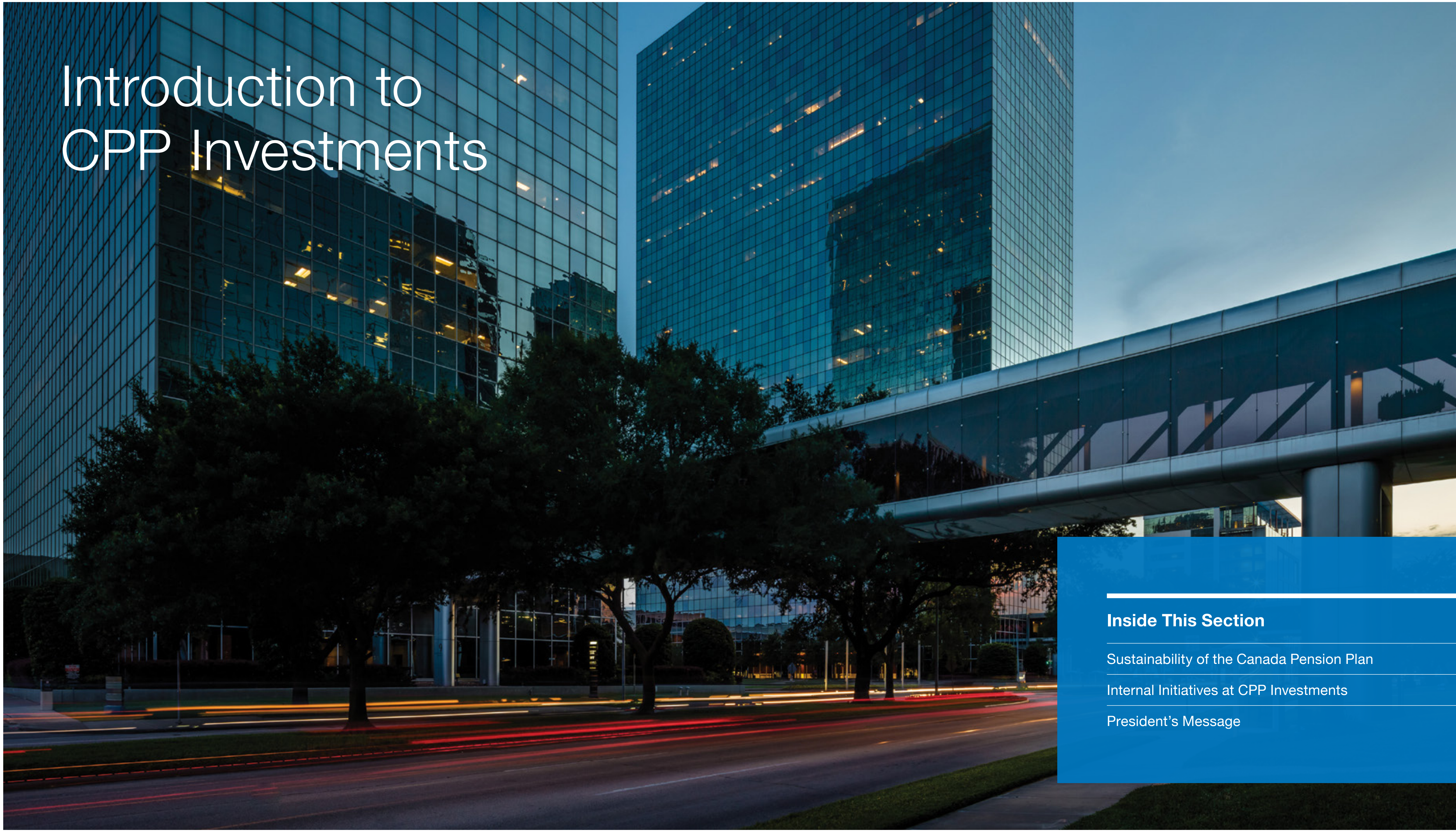
Introduction to CPP Investments



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CPP Investments is a global investment management organization. We were established to help ensure the Canada Pension Plan (CPP) is strong and sustainable for the long term, managing the Fund in the best interests of contributors and beneficiaries.

Our experienced and knowledgeable teams invest around the world in public and private assets. Investments are diversified by asset class and geography so that the Fund remains resilient as it achieves growth in global markets over time.

CPP Investments' governance structure is globally recognized as a best practice for national pension plans. We operate at arm's length from governments and our management team reports to an independent, professional board of directors.

We believe organizations that manage environmental, social and governance (ESG) factors effectively are more likely to endure and create sustainable value over the long term. This is why we integrate these factors into our investment analyses, and work with our investment partners and the companies in which we invest to continuously improve performance in these areas over time.

CPP Sustainability

75+ years

This year, the Fund reached almost half a trillion dollars, about seven years earlier than originally projected. In our 22nd year managing the Fund, CPP Investments is now about $175 billion ahead of projections.

Contributors and Beneficiaries

20+ million

Fund Size as at March 31, 2021

$497.2 billion

Net Return as at Fiscal Year Ended March 31, 2021

20.4%

10-Year Annualized Rate of Return (Net Nominal) as at March 31, 2021

10.8%

Compounded Dollar Value-added

$28.4 billion

We calculate compounded dollar value-added as the total net dollar value that CPP Investments has added to the Fund since the inception of our active management strategy. This figure is above the value that the Fund would have generated had it earned Reference Portfolio returns alone. Details on our operational highlights can be found in our **Annual Report**.

Sustainability of the Canada Pension Plan

The CPP is designed to provide a stable source of retirement income to Canadians today and across multiple generations. Returns earned on our investments support its endurance.

Every three years, the Chief Actuary reports on the financial state of the base CPP and additional CPP over the next 75 years. The Office of the Chief Actuary monitors the long-term sustainability of each part of the Plan.

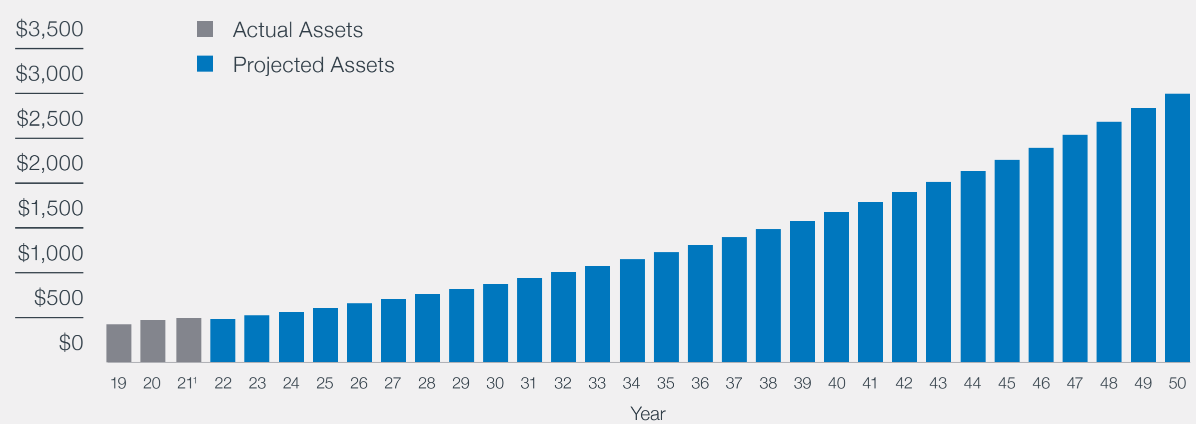
The most recent report, released in December 2019, reconfirmed that both parts of the CPP are sustainable at the legislated contribution rates as of December 31, 2018.

The chart below illustrates the combined projections of assets from the Chief Actuary's 30th Report, which considers future changes in demographics, the economy and investment environments. The Fund has two sources of growth: net contributions from CPP participants and net income earned from investments.

By 2050, the total Fund is projected to reach $3 trillion ($1.6 trillion when value is adjusted for expected inflation).

Projection of Fund Assets

Based on combined projections of assets from the 30th Actuarial Report on the Canada Pension Plan as at December 31, 2018 ($ Billions)



1. Represents actual assets as at March 31, 2021.

Internal Initiatives at CPP Investments

Equity, diversity and inclusion are central to CPP Investments' strategic goals and efforts to distinguish our organization as the employer of choice for high-performing diverse talent. We are committed to fostering a truly inclusive and diverse organization, where every colleague is supported, respected and valued both for who they are as an individual and for their unique contributions. Employee resource groups are effecting change within our own culture, and in our communities, through a range of programs and activities. These resource groups are sponsored by members of our Senior Management Team and help build understanding and inform programs on issues ranging from cultural differences to sustainability, gender equity and LGBTQ+ inclusion. Global participation in these grassroots groups is robust and growing. Membership for established groups, including allies, ranges from 200 to well over 500 colleagues. These include:

Go Green: Raises employee awareness to improve collective environmental efficiency and reduce CPP Investments' internal environmental footprint

MindMatters: Promotes mental health and a psychologically healthy workplace for each of us

Mosaic: Builds awareness of the rich cultural diversity at CPP Investments

OUT: Contributes to a diverse and inclusive culture through building awareness of and engagement with the LGBTQ+ community

RISE: Supports the recruitment, development and retention of Black students and professionals by building awareness, allyship and community, to foster a workplace where everyone can bring their whole and best selves to work

WIN (Women's Initiative): Aims to improve organizational culture by attracting, developing and retaining high-performing female professionals

Women are

(As at June 30, 2021)

46% of our global employees

36% of our Senior Management Team

39% of our investment professionals

58% of our Board of Directors

Read Women, COVID-19–and the threat to gender equity and diversity for recommendations on how to preserve the pipeline of women business leaders.

Of our employees

(As at June 30, 2021)

3% are self-disclosed members of the LGBTQ+ community

4% are persons with disabilities

41% identify as Black, Indigenous and People of Colour (BIPOC)

Equity, Diversity and Inclusion Initiatives

We have numerous initiatives in place to promote equity, diversity and inclusion (EDI) at CPP Investments. These include:

- **Training programs** for interns, new hires, people managers and all colleagues to build awareness of our EDI priorities and embed inclusive behaviour throughout the organization;
- **Promotion of dialogue** internally through targeted events, opportunities and spaces to highlight the importance of representation, empathy, humility and authentic curiosity;
- **Engagement with other organizations,** including through our involvement with BlackNorth's Peer to Peer (P2P) Advisory Group Program; and
- **Measurement of representation** through self-identification surveys to better track the experience of members of historically underrepresented groups and to ensure equitable opportunity for engagement and advancement.

President's Message

"As the world climbs out of the darkest days of the pandemic, one lingering impact is a far greater appreciation of how drastic global events — like a pandemic or climate change — can cause devastating disruption to our economies, families, and our one, precious planet."

John Graham
President & CEO

In my previous career as a research scientist, I witnessed first-hand the capacity of human ingenuity to overcome challenge or create a solution. The health care industry's unprecedented response to COVID-19 is recent proof of humankind's ability to react to global challenges when we choose to.

Humanity has been afforded the opportunity to move forward to better. At CPP Investments we believe sustainable economic growth is contingent on taking a long-term view on value creation and the proactive management of ESG risks and opportunities. These include the value of effective leadership, equity, diversity and inclusion (EDI), the financial impact of climate change and the tremendous capacity of human innovation. Decision-makers at every level are beholden to reflect upon these risks and opportunities and integrate them into how business gets done.

Climate Change

As an active owner and capital partner, CPP Investments seeks to ensure we and our portfolio companies capture the opportunities and manage the risks that arise from the whole of economy transition required by climate change.

We see a crucial role for CPP Investments in the global economy's path to net zero and we will seek to invest in the optimal transition. As we help CPP contributors and beneficiaries achieve lifetime financial security, we plan to be a major investor and partner supporting the whole economy evolution to net zero.

We require companies in our portfolio, both public and private, to have viable energy evolution strategies — and we're holding them to account through our voting and influence. Since our investment horizon is longer than most, we encourage our portfolio companies to take a holistic approach to developing transition strategies. We provide capital to fund strategies that demonstrate an understanding of the macro-shifts happening across each sector of the economy.

We will continue to be a major investor in the energy evolution. Earlier this year, we established the Sustainable Energies Group (SEG) to build on existing strengths in renewables, conventional energy and innovation. The group already has more than $20 billion in assets under management.

Effective Leadership

It is our expectation that boards provide oversight and counsel to ensure executives integrate consideration of all material business risks and opportunities, including climate change, into strategy, operations and their public disclosures. Where these expectations are not met, we will consider the board as failing to act in the best long-term interests of the company and reflect this in our voting decisions.

We take our role as an active owner seriously. We recently updated our Proxy Voting Principles and Guidelines (see **pages 33–36**) to further align our practices with the issues that are most material to our portfolio companies' long-term value creation and preservation. Updates include our new climate change voting policy and our expectation that boards in certain developed markets have at least 30% female directors.

Equity, Diversity and Inclusion (EDI)

We will never realize the full potential of our economies without addressing the business imperative of hiring, promoting and supporting diverse talent. Equity means fairness, impartiality and even-handedness, and involves a distinct process of recognizing differences within groups of individuals and using this understanding to achieve substantive equality in all aspects of a person's life. If the businesses we invest in have more diverse and inclusive workplaces and boards, our Fund will produce better financial results. We expanded our expectations of boards by making clear we consider diversity in all its forms. Diversity includes, but is not limited to, gender, ethnicity, race, disability, sexual orientation and age. We raised our expectations of gender representation on boards and made clear that equity, diversity and inclusion (EDI) doesn't end in the boardroom. It needs to be reflected through the whole organization.

Progress starts at home. CPP Investments is committed to continuing to build an inclusive workplace where all colleagues feel supported, respected and valued both for who they are as individuals and their unique contributions. We believe this will allow everyone to do their best work and unlock their full potential.

In order to ensure we move this agenda forward we are setting clear internal targets. This includes 2025 targets for 5% of hires to be Black students, 3% to be Indigenous students in Canada and to have 5% LGBTQ+ representation.

This year we took a robust look at where and how we are recruiting talent. As a result of what we learned, we are working with student organizations and external associations across Canada to attract diverse talent. Our targeted recruitment efforts are improving gender balance. Women make up 46% of our global workforce, 36% of our Senior Management Team and 39% of our investment professionals. We still have work to do, so we have development programs in place to ensure men and women have equal opportunity, through apprenticeship or mentorship, to get the skills required to advance to senior management.

Looking Ahead

I'm pleased to report that on October 27, 2021, CPP Investments appointed our first-ever Chief Sustainability Officer (CSO), Deborah (Deb) Orida. In addition to this new Firm-wide responsibility, Deb will maintain her role as Senior Managing Director and Global Head of Real Assets, which includes our Real Estate, Infrastructure and Sustainable Energies investments. While she was Global Head of Active Equities, Deb served as the executive sponsor of our Fund-wide climate change program. Deb is poised to lead the Fund on the path to a net-zero economy because of her extensive experience leading investments in public markets, private equity and real assets and integrating climate change into investment decisions. As CSO, Deb will lead the execution of a roadmap for CPP Investments to prudently prepare the Fund as the world economy transitions to address climate change, ensuring we maintain a global, cross-enterprise approach to sustainability as we pursue our mandate on behalf of over 20 million Canadians.

Many of the major economies in which we invest are converging to achieve net zero by 2050, with others setting later targets that they will be under pressure to bring forward. As a global investor, that level of international conviction compels us to manage the Fund accordingly. To that end, we will update stakeholders on our thinking before the end of our current fiscal year.

As a long-term investor, whose purpose is to provide over 20 million Canadians with financial security in retirement, sustainability – in its many forms – is at the heart of what we do. We believe considering ESG factors, including, climate change, in our investment decisions is fundamental to enhancing long-term returns. As a Fund with an investment horizon of 75 years, planning towards a low-carbon world is essential.

Deb will build on our existing efforts to anticipate and manage ESG risks and opportunities, including climate change-related ones, to drive enduring financial performance. She will work alongside our Chief Investment Officer to deliver a holistic investment strategy that will endure to the next century. This strategy includes enhancing and integrating climate risk management of the portfolio, collaborating across asset classes on investments in sustainable businesses and new technologies to enable the economy transition, and developing a plan for managing our operational and portfolio emissions.

Conclusion

We require both clarity of objective and commitment to deliver in order to unleash the full potential of both our financial capital and human ingenuity. We firmly believe that unless we address sustainable growth, including climate change, effective leadership and EDI, as more than just a compliance exercise, the world will not capture the opportunity to move forward to better.

More than 20 million Canadians can take comfort in knowing that the CPP is healthy and growing, and that we are investing with ESG factors top-of-mind, such that the Fund will remain sustainable for the next 75 years.

Sincerely,

John Graham
President & CEO

Our Approach to Sustainable Investing

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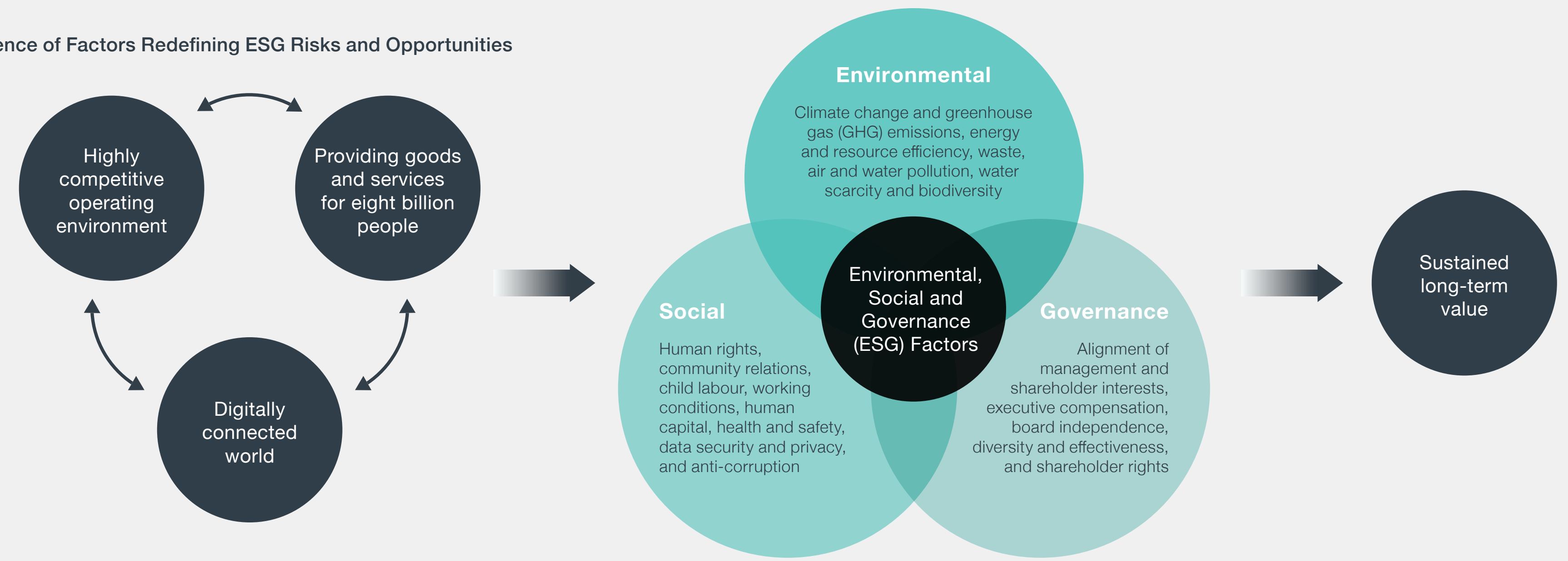
The nature of economic business risks and opportunities has fundamentally changed in this century. Companies are operating in an increasingly competitive corporate landscape, in a digitally connected world, and seeking to provide goods and services for eight billion people. Heightened and rapidly evolving stakeholder expectations have brought environmental, social and governance (ESG) issues, including climate change, to the fore.

Companies and investors that anticipate and manage ESG risks and opportunities are in the best position to drive enduring financial performance. This requires recognition that ESG factors can directly impact a company's profitability.

Companies that are governed well and deliver solutions that meet their customers' needs while limiting or eliminating adverse environmental and social impacts will endure, and create sustained long-term value. In contrast, maintaining questionable sourcing or labour practices, underinvesting in critical environmental protections, failing to address hostile work environments and inadequate cybersecurity can all destroy a company's value. This can manifest as decreased customer trust and loyalty, a loss of brand equity or an inability to attract talent. In the worst cases, a company could lose its licence to operate, literally or effectively.

This report details our approach and activities from July 1, 2020 to June 30, 2021.

Confluence of Factors Redefining ESG Risks and Opportunities



Our Sustainable Investing Approach

The legislation that created CPP Investments gives us clear investment objectives: to maximize returns without undue risk of loss, considering factors that may affect the funding of the CPP.

While our investment horizon permits patience and allows us to work with businesses to better understand their approach to integrating material ESG factors into their strategy, inaction with respect to these factors is not a viable long-term strategy. We believe that, by fully considering ESG risks and opportunities, we become better investors, able to both enhance returns and reduce risk for our more than 20 million contributors and beneficiaries.

We reflect this belief through our sustainable investing strategy, which is supported by a formal governance structure and a dedicated Sustainable Investing team. This strategy includes the integration of ESG considerations through the life cycle of an investment (from due diligence through the ownership phase and when our portfolio companies prepare for listing).

Our active ownership involves engagements with our portfolio companies, where we believe it will create better long-term outcomes on ESG matters and, in turn, generate more sustainable value for CPP Investments. We engage with our portfolio companies through our board representation and shareholder voting rights, as applicable; discussions and correspondence, and collaboration with like-minded organizations.

We engage with companies on a wide range of material ESG-related factors to enhance their long-term value. In the past we focused most of our engagement on five key issues, namely climate change, water, human rights, executive compensation and board effectiveness. While we still focus on these issues, we continuously explore ways to innovate and demonstrate leadership in integrating the assessment of ESG risks and opportunities into our investment process. We focus our engagement efforts on the ESG matters that align with the value drivers of our portfolio companies, tailoring our approach to connect on the issues that are most material to the companies' long-term value creation and preservation. Because the topics we engage on are often interconnected, interactions may cover more than one distinct issue. Throughout this report, we provide examples of our engagement efforts with our portfolio companies and how we support their management of ESG issues.

Additionally, our investment decision-making process considers issues and events that can create outsized reputation concerns. In assessing expected risk-adjusted returns, we evaluate ways unique or cumulative reputation harm may impact CPP Investments' brand. Our Reputation Management Framework seeks to identify and mitigate risks that may negatively impact our corporate reputation. Through this framework, CPP Investments conducts reputation assessments across all asset classes in which we invest. ESG considerations are an integral part of these assessments, given their potential to generate reputational harm to the Fund. The framework and assessments help ensure that potential reputation and ESG impacts are more fully factored into investment decision-making.

Disclosure of financially relevant, potentially material sustainability-related risks and opportunities allows us to better understand, evaluate and assess the potential impact of these factors on a company's long-term performance. We believe companies that have effective boards and are resilient, agile and able to anticipate, manage and integrate into their strategy material environmental and social factors, are more likely to create and preserve value over the long term than those that do not. We support alignment of reporting with SASB Standards and the Task Force on Climate-related Financial Disclosures (TCFD) framework (see pages 14 and 39–40 for details).

Our Policy on Sustainable Investing was recently updated to reflect the realities of today's sustainable investing landscape and includes a new section on climate change. Earlier this year we also updated our Proxy Voting Principles and Guidelines (see pages 33–36 for details on the updates).

Integrated Sustainable Investing Framework[1]

Our belief that consideration of ESG factors leads to greater value creation and preservation over the long term is reflected in our Integrated Sustainable Investing Framework (see chart to the right). This formal governance framework and our Sustainable Investing team support the integration of ESG risks and opportunities into our investment decisions. How we approach these within the context of our legislative objectives is informed by our Proxy Voting Principles and Guidelines, Policy on Sustainable Investing and Integrated Risk Framework and Policy (see page 42 for details).

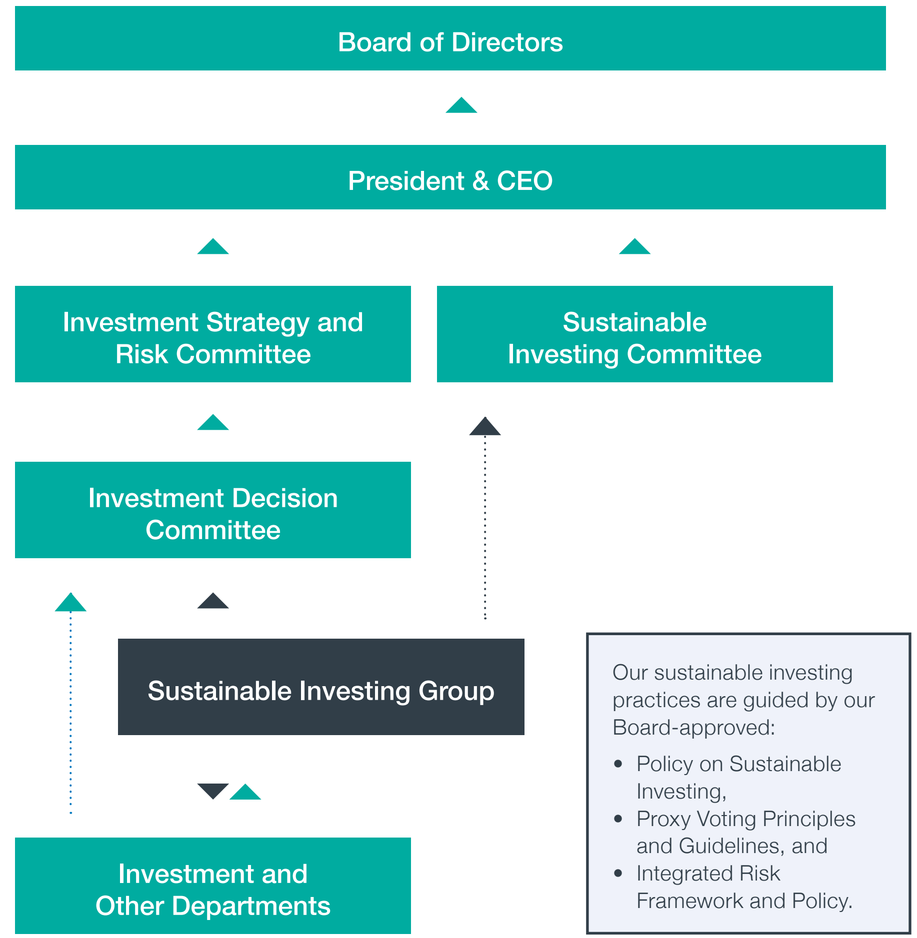
Our **Board of Directors** supports management in developing the strategic direction of the organization in response to its growing asset management responsibilities and the ever-changing outlook for capital markets. The strategy incorporates risk management policies and controls, as well as monitoring and reporting mechanisms. As part of this, our Board approves our Proxy Voting Principles and Guidelines, Policy on Sustainable Investing and Integrated Risk Framework, which includes ESG factors, upon the recommendation of our President & CEO, our Investment Strategy and Risk Committee and our Sustainable Investing Committee.

Our **President & CEO** oversees the successful execution of our sustainable investing strategy.

Our **Investment Strategy and Risk Committee (ISRC)** is comprised of the Senior Management Team, with the President & CEO as Chair. The ISRC is accountable for oversight of portfolio design and all key risks under our Investment Risk Framework. The ISRC oversees the Investment Decision Committee (IDC), our investment oversight and approval committee. The IDC reviews major transactions recommended by investment departments and weighs transaction-specific underwriting and risk/return considerations against strategic enterprise matters and risks, such as significant ESG risks including climate change and reputational impacts.

The **Sustainable Investing Committee (SIC)** is comprised of senior representatives from teams across the organization and is the central forum for the monitoring and guidance of issues related to ESG, including climate change. Members of the SIC work alongside the Sustainable Investing team to shape the Fund's view and stance on areas related to ESG, while also ensuring dissemination of key issues back to their departments. The SIC was reconstituted in April 2021 to include the existing SIC, the Green Bond Committee, the Climate Change Steering Committee (CCSC) and the Climate Change Management Committee (CCMC). This is in line with the planned transition of our climate change program, which the CCSC and CCMC were part of, into our ongoing operations. This climate change program allowed us to build the foundational capabilities to develop and integrate climate change-related work into our day-to-day operations and investment process.

Our **investment departments** work closely with the **Sustainable Investing (SI) group** to integrate relevant ESG considerations into investment decision-making and asset management, and inform our proxy voting decisions and engagement with both public and private companies in our portfolio (see page 11 for more about our SI team). Senior management from **various other departments** (including **Legal, Public Affairs & Communications,** and **Finance, Analytics and Risk**) are also involved in ensuring investment, operational, regulatory and legal, and strategic risks and reputational factors are considered as the SI group supports our role as an active and engaged owner.



We also have an informal **Sustainability Virtual Team (SVT)** to facilitate knowledge-sharing and collaboration on sustainability-related topics across the Fund. SVT members, with representatives from all investment departments across our global offices, share insights and foster discussion on ESG topics — including best practices, market updates and lessons learned — to accelerate our firm-wide understanding of key ESG issues.

1. This is our Integrated Sustainable Investing Framework as at June 30, 2021. On October 27, 2021, we announced the appointment of our first Chief Sustainability Officer. Going forward, the Framework will be updated to reflect this appointment.

Sustainable Investing Group

Our Sustainable Investing (SI) group sits within our Active Equities department and is comprised of professionals with diverse experience and expertise to provide insights on the impacts of environmental, social and governance (ESG) risks and opportunities.[1] The team works closely with our investment departments in due diligence and monitoring across our portfolio by providing ESG-related insights as they pertain to strategic, operational and financial impacts, evolving trends and industry competitiveness and best practices. It also conducts in-depth research on companies, industries and assets in which ESG factors, including climate change, are material to an investment's value.

The group develops fit-for-purpose proprietary tools to expand our capabilities. These tools include a proprietary industry-level materiality framework and public company ESG database to embed ESG considerations into our investment decision-making process.

The group plays a critical role in ESG-related active ownership, due diligence and monitoring activities across public and private investment strategies (see **Informing Investment Outcomes** for details).

The SI group supports our role as an active, engaged owner by carrying out all proxy voting activities. It leads engagements with our portfolio companies to address ESG risks and opportunities to enhance the long-term sustainability of the Fund. The team also helps foster our relationships with like-minded industry peers to maximize the impact of our collaborative engagements on ESG issues.

Additionally, the team launched a beta test for our Sustainable Equities investment portfolio in 2019. This portfolio continues to help us better quantify the investment impact of incorporating specific ESG factors exceeding the return targets we set on initiation of the beta test in both of its first two years. We have recently doubled our capital deployment across our long/short ESG integration strategy as we seek to continue contributing both directly and indirectly to the Fund's performance.

1. With the appointment of our inaugural Chief Sustainability Officer on October 27, 2021, members of the SI team moved to be part of our Real Assets department.

First Row (from left to right): Alvin Ho, David Iacono, Alexandre Lim, Redon Gallani;
Second Row (from left to right): Richard Manley, Maria Montero, Adriana Morrison, Danielle Pal;
Third Row (from left to right): Katie Wu, James Guo, Sam Hadfield, Tammy Bodnar;
Fourth Row (from left to right): Clare Devlin, Samantha Hill, Som Ghosh, Jason MacNeill

Exclusions and Exits

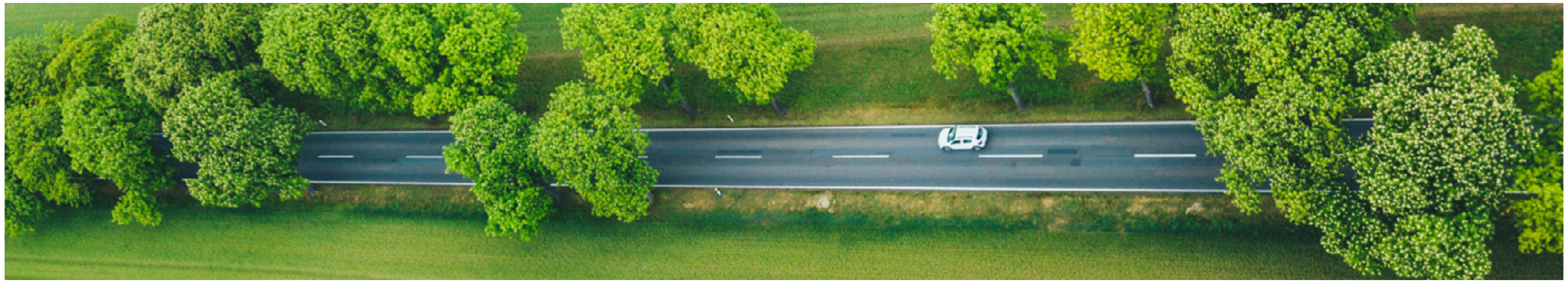
As a long-term investor, we prefer to actively engage with, and attempt to influence, companies when we disagree with a position taken by management or a board of directors of our active holdings. We can be a patient provider of capital and work with companies to bring about change. However, under our **Policy on Sustainable Investing**, we may conclude as part of our risk and return assessment not to pursue or maintain investments in companies for reasons such as the following:

- we conclude management's strategy or lack of engagement with ESG issues undermines long-term sustainability of the business;
- where brand and reputation considerations from ESG factors may generate risk impacts beyond any expected risk-adjusted returns; or
- legal considerations.

These factors are not applied to our exposure to companies through broad-based indexes. Such exposures are indirect and result from CPP Investments' use of market-traded index future contracts. No actual securities are held by the organization in those companies. Further, composition of these indexes is beyond the control of CPP Investments. Our exposures do not assist or affect the capital formation of these companies.

Exclusions include companies affected by the following legislation:

- Anti-personnel landmines: we will not invest in companies not in compliance with Canada's *Anti-Personnel Mines Convention Implementation Act*, or that would not comply if they operated in Canada.
- Cluster munitions: we will not invest in companies not in compliance with Canada's *Prohibiting Cluster Munitions Act*, or that would not comply if they operated in Canada.



Interview with Our Head of Sustainable Investing

"Most innovation in finance in the next decade will be focused on cracking the code on ESG integration"

Richard Manley
Managing Director and Head of Sustainable Investing

Over the past year, the Sustainable Investing team contributed to the Fund's performance by working alongside investment teams as they integrated environmental, social and governance (ESG) considerations into their decision-making. Richard Manley, Global Leadership Team – Managing Director, Head of Sustainable Investing, discusses below the complexities of ESG integration and what lies ahead. As at June 30, 2021, Richard is a member of the Active Equities investment committee.

You have previously shared a vision that most innovation in finance in the next decade would focus on "cracking the code on ESG integration." Do you still feel the same way?

In the last two years we have seen policymakers, companies, investors and other stakeholders embrace the fact that this century has fundamentally changed business opportunities and risks. More importantly, they recognize that failure to proactively identify these opportunities and risks can impact value. The need for investors to crack the code on how to integrate environmental, social and governance considerations appropriately and successfully into the investment process will only continue to grow. It's worth reflecting that this won't just affect issuers and investors. We will see the ecosystem that supports the financial services industry, as well as regulators and even accounting standards, evolve to support ESG integration.

Do you believe that one of the innovations required is a shared framework for ESG reporting?

A decade ago, fewer companies reported on ESG performance, making it easier to determine who was doing well and who was falling short. Today, more companies are seeking to disclose how they are integrating ESG considerations into their strategy — but the challenge is the lack of a standardized way to do so. Without a common framework, it is becoming more complex for investors to make assessments as we have to spend time ensuring the data is comparable.

A year ago, I speculated it would take five years for the industry to reach a common global standard for ESG reporting. Now, we will likely see this standard within the next two years.

Fortunately, the bodies that create frameworks for ESG reporting reached a broad consensus this year to consolidate ESG reporting frameworks into a common standard. Through a consultation process, the International Financial Reporting Standards

Foundation sought to understand the demand for global sustainability standards and the role they can play in its development. Standardization would have significant benefits for investors and issuers. It means that we will hopefully see reporting standards coalesce around industry-specific material data, which is the basis for informing investment decisions.

You have mentioned investors having different motivations and approaches to the integration of ESG. How does this impact your work?

Many investment managers are asked by their end clients to create custom products that target specific levels of return in addition to delivering norms-based or impact objectives. As a result, we are seeing increased supply of products seeking to deliver ESG, climate or green outcomes.

Given that the tools and ratings used to determine what is a green company or a green investment are still relatively nascent, there is a real risk that this growth in assets coalesces into similar securities. Understanding which high-quality businesses were left behind or which less high-quality businesses were carried on this tide of increased supply of ESG, climate or green products is a source of opportunity for investors like CPP Investments.

As investors, we must look beyond the raw data provided in ESG disclosures and engage with companies to understand if the data reflects a forward-thinking corporate culture that integrates ESG considerations and enhances value or reduces risk in the business.

Have ESG issues evolved over the past year? If so, how has this impacted CPP Investments' approach?

The events of 2020 provide great examples of how dynamic ESG business risks and opportunities are for companies. They highlight the need to ensure that getting ESG considerations right is a process of cultural evolution — not just a compliance exercise.

We've made several changes to our proxy voting guidelines and expectations of corporations. These changes make clear that we believe effective boards demonstrate diversity in all its forms, and that diversity needs to move beyond the boardroom, through the executive committee and into the broader leadership of the firm.

The last year has also seen a groundswell in sovereign, corporate and investor commitments to address climate change. We anticipate we will be investing and operating in a net-zero world. We proactively engage with our public holdings that have high levels of climate change risk to ensure that boards are demonstrating clear oversight. This means ensuring there is a climate change governance framework, that climate change risk is identified and quantified, and these insights are integrated into the companies' strategy, operations and public disclosures. Where this is not happening, we are now withholding support for director reappointment. We are also deploying capital to companies that are either seeking to transition or developing solutions that can be used across industries to help transition to a net-zero economy.

Looking ahead, what are your priorities for the coming year?

The Sustainable Investing team has made real progress in our goal to contribute to the Fund's performance through successful integration of ESG into our investment process, both directly and indirectly. Our focus for the next year is three-fold. First, we will build on this momentum and ensure the teams we already work closely with continue to benefit from our insights and see impact on the transactions we deploy. Second, we will broaden our impact across the Fund working closely with different investment groups to ensure that the positive contribution we make to departments today will continue to spread across the entire Fund in the years ahead. Third, we will continue to advance our climate strategy to better capture the opportunities and manage the risks associated with transitioning to a net-zero world.

What CPP Investments Expects of Portfolio Companies

CPP Investments is an active and engaged owner, and is constructive in our partnership with companies on their ESG-related journeys. We recognize and respect the different roles that owners, boards and executives each play in ensuring long-term value creation.

We view the corporate board as being accountable to shareholders, and responsible for the appointment of executives and the approval of strategy. Where boards support actions that appear inconsistent with long-term value creation and preservation, we expect them to communicate the rationale supporting their recommendation.

We recognize and appreciate the complexity of running a company and discharging a board's duties in light of heightened expectations from stakeholders. We expect companies to seek to deliver long-term value creation. To achieve this, we believe companies need to create a culture and a governance framework that proactively identify all material ESG risks and opportunities, and integrate consideration of these into their strategy, operations and disclosures.

To build trust with portfolio companies, we find it helpful to share our expectations of them with respect to considering ESG factors as they exercise their fiduciary responsibilities to both preserve and grow shareholder value.

Respect for Roles and Responsibilities

We do not seek to manage the companies in which we own an interest. A company's owner, board and management each play critical roles in creating sustained long-term value. Their relationships hinge on clear communication and trust. We accept the division of authority and responsibilities among the triad of interests (that is, that of owners, boards and management teams), which is the core of good governance. We view these responsibilities as follows:

Shareholder/Owner:

- owns the company
- elects directors to be stewards of the company

Board:

- responsible for overall governance of the company, including approving company's strategy, monitoring its implementation and overseeing management
- accountable to owners

Management:

- responsible for developing and implementing the company's strategy and for running day-to-day operations
- accountable to the board

We expect our portfolio companies to:

- **Have effective boards.** We believe that, to deliver the best outcomes for the company, a board should be majority independent from senior management, and have sufficient diversity of skills and experience to be able to challenge, counsel and support management in developing and executing a strategy that incorporates a thorough review of all material business risks and opportunities. Where ESG factors, including climate change, are material to the company, we expect boards to (i) ensure they are considered and integrated into the company's strategy, and (ii) disclose the magnitude of these risks and opportunities, their potential impact on business outcomes and how the company plans to mitigate or capitalize on them over time.
- **Disclose ESG risks and opportunities, including material climate change impacts.** We ask that companies also explain why they have identified these risks and opportunities, how they manage them, how the company has performed and any targets to improve that performance over time. We look for companies to report on ESG factors, including climate change, that are relevant to their industries and investment decision-making. For private companies, this pertains to reporting to their shareholders and boards of directors. We support companies aligning their reporting to SASB Standards.

  Climate change-related risks and opportunities exist across industries and geographies. **Wherever transition and/or physical risks are material to the company, we expect portfolio companies to have a strategy to navigate through the challenges and opportunities presented by climate change.** We expect boards, in turn, to ensure climate change-related opportunities and challenges are considered and integrated into the company's strategy. We support companies aligning their climate change reporting with the Task Force on Climate-related Financial Disclosures (TCFD) framework (see **page 40**).
- **Articulate clearly how integration of ESG factors has informed strategy and enhanced returns or reduced risk in the business.** We believe successful ESG integration will support long-term value creation. Rather than solely relying on ESG ratings that may not capture the nuance of integration, we expect companies that are proactively integrating ESG factors into their businesses to be able to articulate how they do so and how it affects outcomes.
- **Have a culture that proactively identifies emerging risks and opportunities, and seeks solutions to reduce or capture their potential.** Culture is often the differentiator between good and great companies. Successful businesses will identify and integrate ESG factors into their decision-making because maximizing long-term shareholder returns depends on it. We welcome dialogue with issuers to understand how their culture helps drive sustainable value creation.
- **Align incentives.** We believe executive compensation should be tied to meaningful performance criteria, incentivize outcomes consistent with long-term shareholder value creation and be put to an annual advisory shareholder vote.

Additionally, we expect our public portfolio companies to:

- Have independent leadership on boards and be majority independent from the company's senior management or controlling shareholder.
- Adhere to our Proxy Voting Principles and Guidelines. We are willing to support companies if they provide compelling explanations for why specific proposals diverge from these principles and guidelines. Companies that fail to create a high-performing culture for governance and leadership will typically struggle to realize their full potential (see pages 31–36 for more about our Proxy Voting Principles and Guidelines and an overview of our proxy voting activities over this past year).

Informing Investment Outcomes

Inside This Section

Integrating ESG Considerations into Our Investment and Asset Management Activities 16

We evaluate and incorporate risks and opportunities from potentially material ESG factors, including climate change, into both investment processes and asset management activities. These embedded ESG considerations can significantly affect our assessment of a company's risk profile and value, so they are critical in determining the attractiveness of a potential investment and how best to manage an asset once acquired.

Our SI team works closely with investment and asset management teams on all major transactions across the organization to help ensure we have an integrated approach to incorporating ESG considerations into our decision-making processes.

Integrating ESG Considerations into Our Investment and Asset Management Activities

Our Sustainable Investing (SI), investment and asset management teams integrate ESG factors both before and after making investments, as well as when our portfolio companies prepare for listing. Below are examples of how we do this during diligence and in our monitoring processes. Diligence is an aspect of our integration process that is done prior to investment. Monitoring is part of the process by which we manage our assets post investment. Engagement is an essential part of both our diligence and monitoring processes.

Examples of ESG tools developed and utilized throughout the investment life cycle (i.e., during diligence and monitoring processes) and across asset classes:

PRE-INVESTMENT DILIGENCE	POST-INVESTMENT MONITORING
PUBLIC ASSETS	
Detailed ESG research reports: assist analysis of the performance, practices, policies, oversight mechanisms and disclosure of publicly traded companies **Proprietary industry-specific materiality framework:** draws on existing standards and frameworks to provide granular insights into which ESG factors most significantly impact a company's performance **Bespoke ESG database:** enables a data-centric and dynamic approach to measure and monitor ESG information	**Proxy voting:** used by the SI group to vote CPP Investments' shares at annual general and special meetings of shareholders for all publicly traded companies in which we invest **Custom engagement heatmap:** helps proactively identify engagement priorities to address areas of key ESG underperformance
PRIVATE ASSETS	
Detailed ESG evaluations: help the SI group to assess the ESG practices of potential direct equity investments (with the exception of our Real Estate team, which conducts its own process (see page 19))	**Onboarding and monitoring practices:** enable active monitoring of ESG factors over the life cycle of an investment, with a focus on issues identified during the diligence process **Pre-IPO engagement:** focuses on active engagement on ESG issues based on best practices as private assets in our portfolio prepare to list
ALL ASSETS	
Climate Change Security Selection Framework: enables identification and quantitative assessment of climate change impacts in a consistent, comparable way in our most material individual investments	**Climate Change Security Selection Framework:** also applies to existing assets in our portfolio so we can consider potential initiatives to mitigate risk and realize opportunities to further enhance value
GENERAL PARTNERS AND EXTERNAL MANAGERS	
ESG due diligence questionnaire: helps evaluate how General Partners (GPs) integrate ESG considerations into policies and processes, due diligence, monitoring and reporting, and their commitment to providing resources for those activities	**Monitoring and reporting:** capture updates or changes to existing ESG processes at GPs and external managers through their responses to an annual survey; GPs also report on their ESG practices at Limited Partner (LP) Advisory Committee meetings and within public reporting

Ongoing engagement and constructive dialogue: as an active owner, we value constructive two-way dialogue with portfolio companies on ESG issues that have a material impact on their sustained long-term value

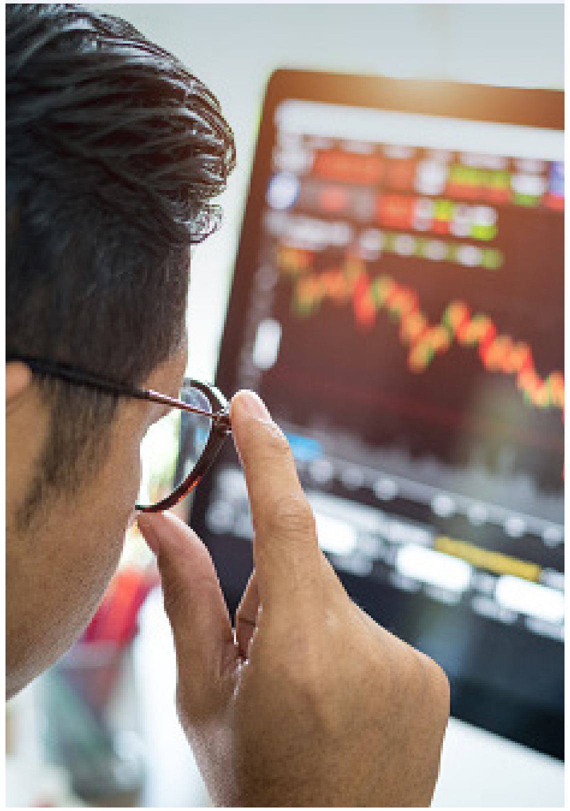
Our ESG evaluations of potential private direct equity investments consist of a structured, intensive review of a target company's business model and key ESG risk factors. The process includes 45 potential areas of review that focus on the following key topics: environment, health and safety, labour and human rights, community relations, cybersecurity and data privacy, business integrity and corporate governance. We scope the most material topics and questions for each transaction, based on the deal structure, company, industry and geography. The final assessment draws on relevant input from several internal and external experts and sources, delivering decision-useful information to the team involved in the investment. Additionally, our investment teams work closely with the Public Affairs & Communications (PAC) team during the due diligence process to assess the potential reputational impact of our investing in a company or asset, which can include ESG-related risks.

CASE STUDY

Adopting an innovative Life Cycle Analysis approach to sustainability while meeting consumer needs

We invest in innovative companies. Berlin Packaging, a company in our Direct Private Equity portfolio, is a leading hybrid supplier of custom and stock rigid-packaging products in North America and Europe, and a leader in sustainability innovation within the packaging industry. Berlin Packaging performs Life Cycle Analyses using specialized software to benchmark the fossil fuel consumption, water use and greenhouse gas emissions associated with thousands of the company's products. The team then models the impacts of various change scenarios, such as design changes, material conversions, transportation optimization and the use of renewable or post-consumer materials. These findings are being used to help Berlin Packaging's customers make informed decisions that are aligned with their sustainability objectives.

Our Climate Change Security Selection Framework applies our "bookend scenarios" to our most significant transactions where climate change impacts are deemed to be material. We apply these scenarios in order to identify and quantify the financial impacts of climate change at the screening and due diligence stages of the deal. We have begun applying the framework to existing assets in our portfolio, where we also consider potential initiatives to mitigate risk and realize opportunities to further enhance value. (Please see page 22 for more details).



Our ESG due diligence questionnaire is required of our private equity General Partners (GPs) and external managers to complete at the beginning of a new relationship with CPP Investments. For GPs, the due diligence questionnaire includes a wide range of questions related to the integration of ESG considerations, including climate change, into their investment activities. Insights from the questionnaire enable us to benchmark performance and best practices, allowing us in turn to better engage with GPs on areas of opportunity. One such area of inquiry regards a GP's approach to considering diversity factors, both internally and at the portfolio company level. Similarly, diligence for external managers, which focuses on understanding their ESG-related diligence, monitoring and engagement practices, as well as proxy voting activities, was expanded this year to specifically inquire about diversity policies and programs, including how efforts are tracked and measured.

In addition, our Private Equity Funds team has recently developed a supplemental questionnaire to better understand, evaluate and monitor the equity, diversity and inclusion (EDI) efforts of GPs both internally and at the portfolio company level, in line with the Institutional Limited Partners Association's Diversity in Action initiative (see page 39 for details). The EDI questionnaire allows CPP Investments to collect EDI metrics and qualitative information in a systematic way and to engage in meaningful discussions with our GPs around efforts and initiatives, including the sharing of best practices. A summary assessment of quantitative and qualitative findings, including EDI-related ones, is also included in final manager recommendations for both new Private Equity Funds commitments and re-up candidates.

Our engagement heatmap

Our engagement heatmap is a visual interface that leverages our ESG due diligence process for public companies and industry-leading databases of ESG information. The tool allows us to quickly analyze our public portfolio companies to determine:

- opportunities for alignment with our Proxy Voting Principles and Guidelines (see pages 31–36 for more details about these),
- alignment of their sustainability reporting to SASB Standards and the Task Force on Climate-related Financial Disclosures (TCFD) framework, and
- ESG disclosure and performance gaps based on our proprietary materiality map.

This heatmap allows us to prioritize engagement areas with portfolio companies to maximize our ability to both understand these risks and support improved underlying company performance.

Working with our Portfolio Value Creation (PVC) team to enhance ESG-related onboarding and monitoring practices for direct equity investments, our Sustainable Investing team collaborates with the Portfolio Value Creation team on various asset management activities related to ESG as they pertain to direct equity investments. The PVC team works closely with investment teams to infuse industry best practices into value-creation planning, management and director evaluation and selection, and investment monitoring of company performance, including ESG factors, for assets where CPP Investments has material governance rights. To establish effective long-term governance and controls, we provide onboarding support and 100-day planning for newly acquired companies. This includes refining reporting requirements of our portfolio companies to ensure relevant key performance indicators are tracked so that we can appropriately monitor material ESG-related developments and capture value in light of the specific industry and business context for each company.

As our portfolio companies continue to evolve their strategies, including with respect to ESG, CPP Investments works with them to share best practices and key learnings from across our portfolio. One way we do this is through the non-executive directors (NEDs) engagement series, a forum for CPP Investments and NEDs appointed to portfolio company boards to share insights around best practices in asset management. This series, a collaborative effort between the PVC, Legal and investment teams, was launched last year and has been key to establishing ongoing dialogue between CPP Investments and NEDs on critical topics arising from the pandemic and other significant trends related to long-term value creation. Topics covered in these sessions have included: digital disruption risks and opportunities; equity, diversity and inclusion; succession planning; climate change; and other ESG issues.

PORTFOLIO VALUE CREATION CASE STUDIES

Being a long-term capital partner by proactively supporting portfolio companies during COVID-19

CPP Investments is an active owner and capital partner. Early in the COVID-19 pandemic, our Portfolio Value Creation (PVC) team partnered with investment departments across the Fund to understand the implications for our portfolio companies and implement a comprehensive response to the quickly unfolding crisis. This began with a targeted portfolio impact assessment to evaluate potential liquidity needs for direct equity investments where we have material governance rights, and ultimately involved planning and executing company-specific COVID-19 impact mitigation strategies. We leveraged our portfolio-wide learnings to drive best practice sharing and were able to provide portfolio companies with access to experts (e.g., on COVID-19-related government policies from around the world).

Evaluating cybersecurity preparedness at our portfolio companies

Cybersecurity is an important issue across all industries. As part of CPP Investments' investment due diligence process, we evaluate cybersecurity issues. This year, as part of the team's ongoing monitoring of direct equity investments, PVC continued to roll out a program for evaluating portfolio company cyber maturity. This program utilizes industry-standard frameworks, customized for CPP Investments' range of holdings and requirements as a shareholder in these businesses. It is supported by an external advisor with expertise on cyber maturity and industry-leading standards. As of June 30, 2021, 40 companies in our direct equity investments portfolio have been evaluated with key findings and recommendations shared with the respective management teams and relevant board members.

We will continue to expand this evaluation process across CPP Investments' portfolio. This process is now a standard component of the onboarding process for new acquisitions. To further support this initiative, we are rolling out board cybersecurity preparedness training to portfolio company directors appointed by the Fund, and will continue to collaborate across the organization to evolve and augment CPP Investments' approach to cyber due diligence and risk management.

Our monitoring practices for real estate assets

Working with CPP Investments' real estate partners, our Real Estate team assesses ESG factors and operating efficiencies on an ongoing basis to maintain and enhance the competitive position, value and marketability of property investments. Once we acquire a real estate asset, annual ESG monitoring tools are put in place so we are aware of any significant ESG issues or events, regulatory changes and corporate initiatives with respect to ESG matters, and new environmental certification and performance against operating efficiency targets over the past year.

We track our existing partners' participation in the Global Real Estate Sustainability Benchmark (GRESB) and the CDP to deepen our understanding of our partners' sustainability operations and near-term objectives. Our total Real Estate portfolio has a GRESB participation rate of 77% by equity carrying value. In addition, we conduct our own annual real estate survey. Most respondents to this year's survey indicate they have environmental or other sustainability policies or initiatives in place at their companies. Almost all respondents say they have anti-bribery and corruption policies, and frameworks to monitor worker health and safety requirements. Additionally, 61% of them have climate-specific targets.

CPP Investments' Annual Real Estate Survey Results

Survey Participation Rate	**100%**
Environmental Policy	**89%**
Health and Safety Policy	**93%**
Human Rights Policy	**95%**
Anti-Bribery and Corruption Policy	**95%**
Partners with Climate-specific Targets	**61%**

Green Building Certified Assets (Certified/Pre-certified):

403 across 27 countries

LEED Certified	**145**
LEED Gold	**74**
LEED Platinum	**15**

REAL ESTATE CASE STUDY

Working with local partners who are implementing best practices

In May 2021, CPP Investments entered into a joint venture with The Phoenix Mills Ltd., a leading retail mall developer and operator in India, to develop a regional retail centre in Alipore, Kolkata. Mindstone Mall Developers Private Ltd., the joint venture, will develop a retail centre with a potential leasable area of approximately one million square feet. The target completion date is the second half of 2024. Our local Real Estate team in India worked with our Sustainable Investing team to assess the physical and transition climate change-related risks associated with Mindstone — particularly tenant demand and exit value impacts — to determine the appropriate valuation for the asset.

In April 2021, we entered into a joint venture with RMZ Corp., one of Asia's largest privately owned real estate owners, investors and developers, to develop and hold commercial office space in Chennai and Hyderabad. RMZ's commitment to sustainability was a key consideration in partnering with them. RMZ was one of the first organizations to adopt the green building rating system in India. RMZ has also streamlined waste management and established integrated waste management mechanisms across locations. In 2019, they diverted 90% of waste from landfills. As of June 2021, RMZ has developed the largest Indian portfolio of assets certified under LEED Arc, a leading green building rating system. They are also the first company, globally, to achieve the WELL Health–Safety Rating. The rating indicates that the buildings are addressing a range of acute COVID-19-related health threats through facilities operations and management strategies. We are targeting the same for assets within our joint venture with RMZ.

Ongoing engagement, including pre-IPO

As a large private equity Limited Partner and co-investor and public equity market investor, CPP Investments is uniquely placed to share insights into evolving governance and other ESG best practices. We engage with companies in our private portfolio on an ongoing basis, including when they are preparing for an initial public offering (IPO). Our engagements with companies preparing to go public primarily focus on supporting their readiness and transition to best-in-class public market governance, and providing perspectives on the robustness of their ESG-related disclosures and go-forward strategy. Our SI team works with our investment and asset management teams to engage in constructive dialogue with the boards and management teams of our public portfolio companies and private portfolio companies preparing for listing to share our perspectives and views on best practices for ESG-related issues.

ENGAGEMENT CASE STUDIES

Sharing perspectives with companies in advance of IPOs

Prior to a company in our Direct Private Equity portfolio going public, our Sustainable Investing team shared governance best practices in line with our Proxy Voting Principles and Guidelines. We suggested the inclusion of a sunset provision for its rotating classified board. In addition, we shared our perspectives on the company's ESG disclosures vis-à-vis its peers as it continues to evolve its ESG strategy. Upon its IPO, the company included a clause to convert its rotating classified board to one that is up for annual election.

Sharing best practices with companies ahead of SPAC listings

A special purpose acquisition company (SPAC) generally refers to a blank cheque, publicly traded company with no operations, but with a trust account of capital for the purpose of effecting a business combination with one or more unspecified businesses. SPACs have recently become an increasingly popular source of financing for private companies seeking to list publicly. We apply our newly public company expectations (see page 35 for details) to companies that choose to list publicly via a SPAC transaction and seek to engage with our portfolio companies on best practices in advance of listing.

Ahead of its SPAC listing, a private company in our portfolio was assessing its board structure and incentive award plans. We shared best practices with the founder and other key shareholders regarding board and subcommittee compositions, as well as director elections, tenures and transition processes. We further provided perspectives on key terms regarding the company's proposed incentive award plans.

Engaging with a founder-led company as it seeks Main Board listing

Our Relationship Investments (RI) team makes significant, direct minority ownership investments in public or soon-to-be public (pre-IPO) companies in developed markets of North America and Europe. Our RI and SI teams have engaged with a fast-growing, founder-led company's management team and board on numerous ESG topics, acting as a sounding board and resource to both. In light of the company's aspirations to seek a Main Board listing, we shared alternative approaches to its governance structure that might help it attract a larger, international and institutional investor base as it continues to grow in size and complexity. Following these discussions, last year the company established independent audit and remuneration subcommittees as a positive governance practice that exceeds legal requirements. In addition, the company has developed a roadmap for a Main Board listing and communicated its intentions to the market.

Being a thought partner to portfolio companies

In advance of the AGM of one of our portfolio companies, our Relationship Investments and Sustainable Investing teams discussed a wide range of ESG topics, including director overboarding, term lengths, cybersecurity and board diversity, with the chair of the company. Historically, the company has elected board directors for five-year terms, which is relatively typical in the jurisdiction where it operates. While CPP Investments views annual elections as best practice, we are pragmatic and consider circumstances on a case-by-case basis. The board proposed four-year election terms instead of five-year ones, reflecting our conversations and general investor feedback to enhance governance standards.

Supporting our director nominees to help companies develop enhanced ESG capabilities

Over the past year, a number of our portfolio companies with representative directors from CPP Investments established ESG committees. The goal of these committees is to strengthen oversight of the companies' ESG strategies, commitments and objectives.

Engaging with portfolio companies on human rights

CPP Investments believes strong human rights practices contribute to creating and sustaining long-term value. Working with companies in our portfolio on this topic is key to our mandate. This work includes assessing the risk of unacceptable human rights practices within company supply chains. Firms that do not respect human rights face above-average operational turmoil, higher legal risk, lack of community support and impaired brand value resulting from reputational damage.

As with all ESG issues material to sustained long-term value, we engage with portfolio companies on human rights. We constantly monitor developments related to our holdings to understand where we need to focus our resources. In 2020, a report by the Australian Strategic Policy Institute (ASPI) estimated approximately 80,000 Uyghurs and people from other minorities have been relocated from Xinjiang, China, to factories across the country under conditions that suggest forced labour, restricted movement and heightened surveillance.

Outcomes of our subsequent discussions with portfolio companies included a leading online retailer providing disclosure on their enhanced supply chain monitoring and a major technology company revealing they launched an investigation based on the allegations.

We work with companies in situations where we believe there is an opportunity to bring about change. A failure by a company's management to address unacceptable human rights practices is one of the reasons that could lead us to exit or avoid making an investment, consistent with the Exclusions and Exits section of our Policy on Sustainable Investing.

We supplement our own direct engagement efforts on ESG issues, including human rights, through collaboration with like-minded peers and our relationship with EOS at Federated Hermes (EOS), our global stewardship provider. EOS has engaged with companies on forced labour, with dialogue and meetings resulting in the following positive responses:

- details of work being carried out to ensure transparency of supplychains;
- initiation of collaborative work with industry associations, such as Responsible Business Alliance, focused on global supply chains;
- instigation of specific investigations in supply chains; and
- further analysis to identify other companies for potential engagement in high-risk sectors.

We also joined a collaborative engagement led by Investor Alliance for Human Rights on this issue, with 50+ global peers and 40+ companies in our portfolios, to encourage supply chain mapping, disengagement from business relationships connected to forced labour, and public disclosure of efforts and progress.

Climate Change and the Energy Evolution

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Our Leadership in Understanding the Financial Impacts of Climate Change

CPP Investments seeks to be a leader in integrating climate risks and opportunities into our investment process. The last year saw further evidence of the physical risks associated with climate change, a growing commitment from political and corporate leaders to address this challenge and increased desire from the financial community to signal alignment towards achieving net-zero emissions by mid century. While momentum to find a solution is growing, climate change remains one of the most complex challenges of our time.

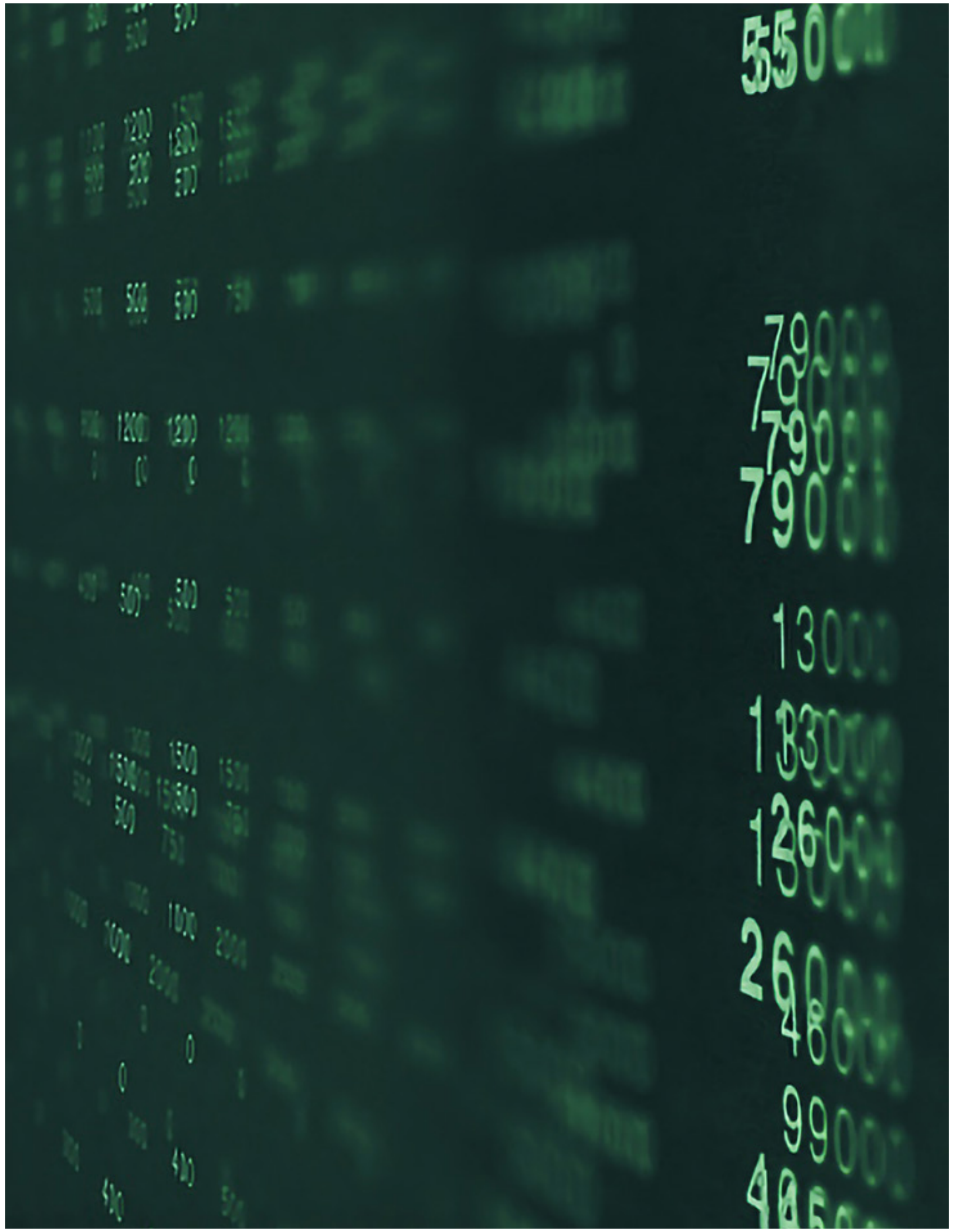
Our efforts to understand the impacts of climate change and to integrate this into our investment decisions started more than a decade ago. Over the last 12 months, CPP Investments has made considerable progress in further integrating the assessment of climate change-related risks and opportunities into our investment processes.

The assessment of climate change impacts is embedded in our investment processes through our Climate Change Security Selection Framework. The framework requires consideration of the financial impacts of both high physical risk and high transition risk scenarios (our “bookend scenarios”) where climate change impacts are deemed to be material to the investment decision and asset management strategy.

High physical risk scenarios are those resulting in more than 4°C of temperature warming over pre-industrial levels. High transition risk scenarios result in less than 2°C warming. Physical risk manifests itself in both types of scenarios. The framework is applied to any transaction requiring Investment Decision Committee approval.

This year, we also started assessing existing investments in our portfolio, which will allow us to engage with management teams at portfolio companies to consider developing action plans to mitigate identified risks and/or realize opportunities related to climate change. We actively engage on climate change with companies in our portfolio that contribute the most to the Fund’s climate change risks and opportunities. As shareholders, we respect that companies we invest in determine their own specific climate-related transition strategies. However, we seek to ensure that they have identified, quantified and integrated these factors into their strategy.

Furthermore, through our new proxy voting practice on climate change, we will vote against the reappointment of the chair of the risk committee (or an appropriate equivalent committee), where boards have failed to demonstrate adequate consideration of physical and transition-related impacts from climate change. This practice applies to companies that contribute the largest climate change risks in our public equities portfolio. Starting this year and going forward, we will report on the number of companies we have actively voted against (please refer to page 33 for more details).



Investing in the Energy Evolution

Our approach to climate change is aligned with efforts to slow the pace of global warming. As the global economy moves toward net zero, it is our goal to capture the opportunities and manage the risks that will present themselves as society works to reduce and remove greenhouse gases from the real economy.

Our Fund's investment strategy is designed to fulfil our mandate of maximizing returns without undue risk of loss. Incorporating non-market and emergent factors, like climate change, into our decision-making creates sustainable value. We anticipate that mismanaged climate risk will continue to emerge as a factor that impairs shareholder value.

As an active owner and partner, we seek to ensure we and our portfolio companies capture the opportunities and manage the risks presented by climate change. We believe the next three decades will see a whole-of-economy drive to remove greenhouse gas (GHG) emissions towards a net-zero economy. As a result, active investment programs across CPP Investments consider both climate change opportunities and risks in material investment decisions and asset management activities. We also seek investment returns by identifying secular beneficiaries of this whole-of-economy transformation, including investments in renewables, clean technology and services, green buildings and companies seeking to decarbonize or transform their businesses. We pursue these opportunities through multiple investment programs across public and private markets, both directly and through investment funds.

Companies leading and enabling the energy evolution will emerge as highly attractive investment opportunities. For investors focusing on the long term, identifying companies with further transition capacity may also present opportunities to generate superior returns by supporting their transformation towards more sustainable business models.

Accelerating the global energy transition requires a sophisticated, long-term approach, rather than blanket divestment. We are in a position to provide capital that advances decarbonization of the economy to support responsible transition. This includes the sectors and companies at the core of our economy.

The odds of reaching global goals to reduce GHG emissions will be significantly diminished if the ingenuity of current energy players is removed from the global toolkit. Our ability to invest in public and private enterprises and add value through active ownership gives us additional tools to support the transition and generate superior long-term investment returns.

The energy evolution offers unprecedented opportunities. We are prepared to help finance this complex transition. As the transition progresses, we expect many traditional energy companies will innovate new, greener technologies. In April 2021, we created a new Sustainable Energies Group (SEG) to combine our expertise in renewables, conventional energy and new technology, and service solutions. SEG is designed to provide capital for the growing market opportunities as the energy sector evolves and global power demand grows, especially for low-carbon energy alternatives.

We believe that, over the decades to come, some of the most rewarding long-term investment opportunities in the global economy rest among those businesses that evolve and innovate along the evolution to a net-zero world. We will continue to seek out companies across the full spectrum of the energy sector that are driving and demonstrating low-carbon innovations and practices, as the world continues its path to achieve net zero, and staving off the worst effects of climate change.

Investing in Climate Change Opportunities

In 2019, our Thematic Investing team began investing in a dedicated Climate Change Opportunities portfolio across five sub-areas: (1) Green Consumerism, (2) Buildings & Materials, (3) Transportation, (4) New Power Generation and (5) Agricultural Technology. This portfolio invests in both public and growth-stage private companies, offering new technologies and business models to adapt to or mitigate climate change. The strategy is fundamentally driven and will, at scale, contain a global and diverse set of innovative public and private companies.

For example, our Climate Change Opportunities portfolio includes investments in companies, such as Perfect Day, that are creating alternative proteins (to reduce emissions from animals in food production) and making building cooling more efficient.

According to the International Energy Agency, without changes to the efficiency of current building equipment, energy use for buildings could rise 60% by 2040. Similarly, the amount of electricity used to keep buildings cool has more than tripled in the period between 1990 and 2016, and cooling needs as a percentage of total building electricity usage is projected to reach 30% by 2050. Hence, we expect an increase in demand for self-monitoring, self-optimizing and cloud-enabled products that allow for more effective monitoring and control of flows of air and water around and within heating, ventilation and air conditioning (HVAC) systems, such as those manufactured and sold by portfolio companies Belimo, Sanhua and Turntide.

Our Sustainable Energies Group

Supporting sustainable innovation and evolution across the energy sector

As the world transitions towards a low-carbon economy, we believe the energy sector has a key role to play. In April 2021, CPP Investments created a new Sustainable Energies Group (SEG), through the combination of the Energy & Resources (E&R) and Power & Renewables (P&R) groups, SEG is well positioned to provide capital for the growing market opportunities as the energy sector evolves and global power demand grows, especially for low-carbon energy alternatives. The SEG team has diverse skill sets and backgrounds and collaborates with colleagues across the Fund to understand the wide spectrum that comprises the energy sector — allowing CPP Investments to capitalize on opportunities presented by the energy evolution while avoiding undue risk. While the energy industry shows no sign of becoming any less complicated, the Sustainable Energies Group is confident they are well placed to make a positive impact on Fund performance.

Hear from four members of the team about how they are working together to enhance the Fund's performance

Originally from Alberta, James Jackson is a Managing Director in the Toronto office. He spent his career in the energy industry, and thinks Canada is well positioned for success in the shifting marketplace. He says CPP Investments' role in the energy evolution should not be understated.

According to James, conventional oil and gas players will continue to participate in the energy evolution and will be leaders in the space. The innovation that's coming out of places like Alberta around carbon capture and sequestration, as well as hydrogen, are very promising. These are areas of focus that the industry is well suited to lead in. As we think about this multi-decade-long transition, conventional players will play a prominent role.

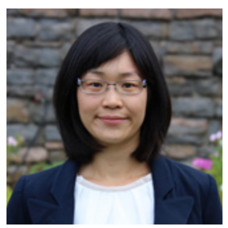
James Jackson
Managing Director,
Toronto

"Not only are we investors, but we're also thought partners to our portfolio companies. As they navigate the energy transition, they have a global partner with investments around the world and in different sectors. This helps them find opportunities to partner and share information. This is good for the portfolio companies and good for the Fund. Additionally, cross collaboration within SEG and the Fund are key to identifying technologies to share amongst our portfolio companies."

Alice Yang is a Director at Wolf Midstream, our wholly owned platform for midstream investments in Western Canada that CPP Investments established in 2015. She is Canadian, and currently working as a Managing Director out of CPP Investments' office in New York City.

Alice joined CPP Investments to play a role in delivering returns that ultimately provide retirement savings for more than 20 million fellow Canadians. She believes SEG provides an even greater opportunity to achieve that goal by enabling CPP Investments to invest anywhere along the energy value chain.

Alice says Wolf Midstream, which owns and operates the Alberta Carbon Trunk Line, the world's newest integrated large-scale Carbon Capture Utilization and Storage (CCUS) system, is one example:



Alice Yang
Managing Director,
New York

"To meet the Paris Agreement and limit global warming to 1.5 to 2 degrees, we will need a suite of solutions to decarbonize the economy. The Energy Transitions Commission predicts some 7-8 Gt of CO_2 per year need to be captured and sequestered by 2040. Putting that in the context of the capital requirements, it has the potential to become a USD $1 trillion investment opportunity to scale up CCUS capacities. Based on the technologies available today, CCUS is already economically viable in some agricultural and industrial applications and will become more broadly viable as capture costs fall and carbon prices rise."

For Bianca Ziccarelli, investments in energy assets and infrastructure are near and dear to her heart. Bianca grew up in Brazil, and sees these investments as not only important to support the energy evolution, but helpful in reducing inequality in emerging markets.

Now working as a Principal from CPP Investments' London office, she's currently focused on renewable energy opportunities in Europe, where renewables are playing a significant role in SEG's portfolio. Over the past year, her primary focus was establishing a new, onshore renewables platform called Renewable Power Capital (RPC), on which she is a Board Director. The company invests in late-stage development and operating renewable assets across Europe.

Bianca notes that:

Bianca Ziccarelli
Principal,
London

"RPC has been extremely active in the European renewable space since the company was created in December of 2020. It has already closed two investments: the acquisition of a portfolio of onshore wind projects in Finland and a partnership on the development of a portfolio of solar photovoltaic assets in Spain. By continuing to invest in this space and looking into new technologies, such as battery storage, we believe that Renewable Power Capital will help Europe advance its climate change agenda."

Growing up in Calgary, energy has always been top-of-mind for Tanuj Dutta. Today, he is a Principal working out of the San Francisco office at CPP Investments, focused on investing in new, innovative companies that help to digitize and decarbonize the energy industry.

Tanuj highlights how some investments, such as Clir, have allowed CPP Investments to capture the opportunities in the energy evolution:

Tanuj Dutta
Principal,
San Francisco

"Clir is a renewable energy optimization company and one of our most recent investments. Over the last decade, wind and solar farms have been built rapidly resulting in an increasingly competitive market. Clir's software analyzes and provides suggestions for how renewable energy companies can maximize production, improve returns, and grow their asset base, which improves their operations and increases profitability. The wind and solar industries will be critical for long-term decarbonization, and these improvements to firms' operations will help to grow the industry by bringing in more capital."

Another example of promising technology on the SEG team's radar is hydrogen. Read CPP Investments' ThinkingAhead paper, **Hydrogen's new moment,** for more about renewed interest in hydrogen as a viable fuel source and investment opportunity.

"The energy market is highly complex and dynamic. The makeup of the energy supply is also constantly evolving. Having a team that is at the forefront of the energy industry's evolution with access to a single pool of capital, allows CPP Investments to construct a portfolio that is well diversified across the industry, resilient to external shocks and maintains optionality to participate in growth opportunities. That requires a deep understanding of the energy markets in a systematic way and from multiple angles." – Alice Yang

Renewable Energy

CPP Investments' exposure to renewables is aligned with our belief that the energy evolution provides opportunities for attractive long-term, risk-adjusted returns. Some of our investments in this space include those highlighted below:

Cordelio Power: Cordelio is a renewable power producer managing over 1,000 MW of renewable generation assets across North America, including 396 MW of wind and solar projects in Ontario (51%-owned by Cordelio) plus a 656 MW (net) wind and solar portfolio stake owned by CPP Investments. Cordelio also owns (wholly and through a joint venture) a growth pipeline of over 5,000 MW of wind, solar and storage projects in the western and midwestern United States.

Renewable Power Capital (RPC): European renewables platform that invests in solar, onshore wind and battery storage projects from development through to operations.

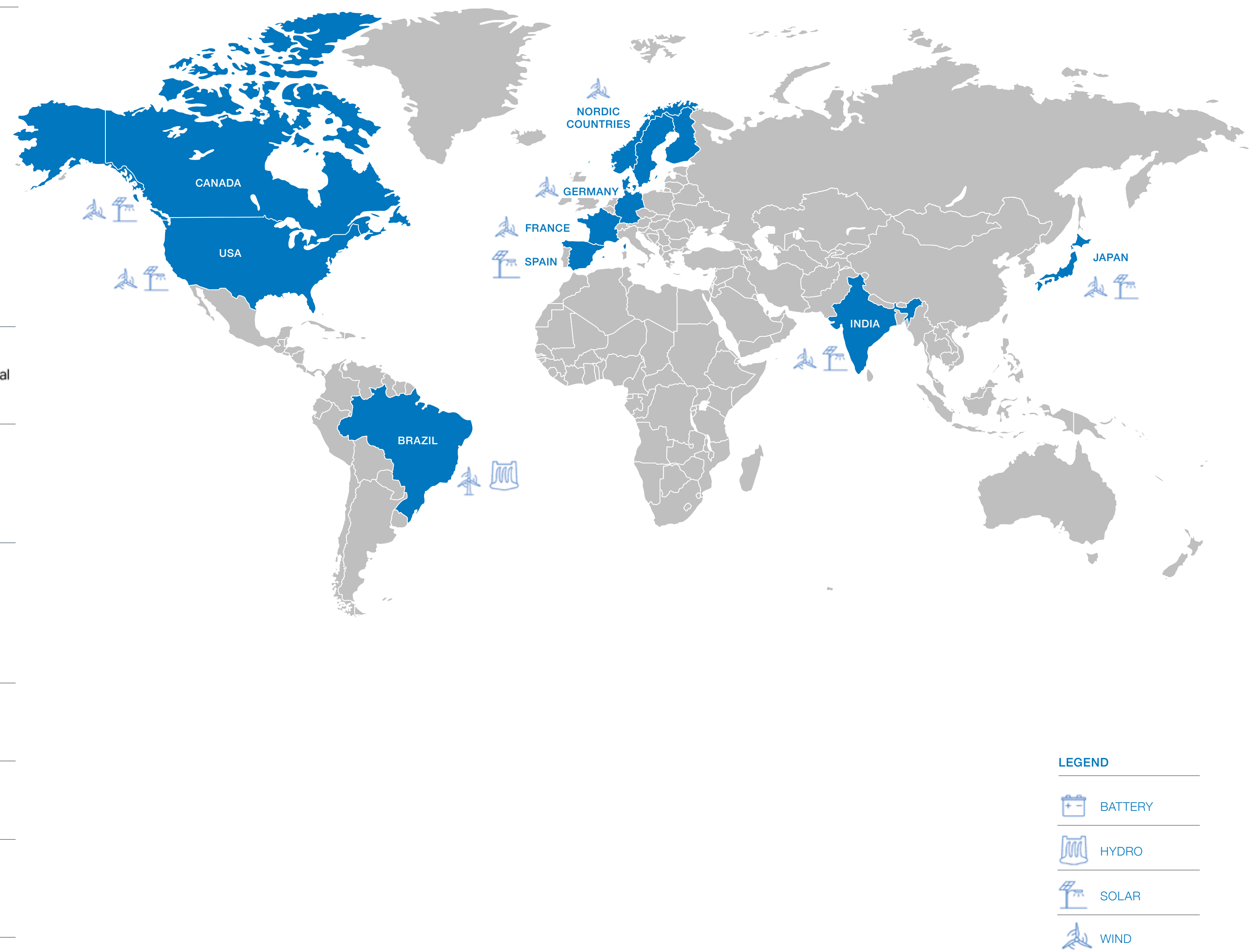
VTRM Energia: Joint venture with Votorantim Energia, a subsidiary of Votorantim Group, which owns and operates 980 MW of wind power plants in Brazil and a controlling stake in CESP, the largest hydropower generator.

CESP: CESP is one of the largest hydropower generators in Brazil and owns and operates the Porto Primavera hydropower plant (1,540 MW installed capacity). VTRM Energia, the joint venture between Votorantim Energia and CPP Investments, acquired a controlling stake in CESP.

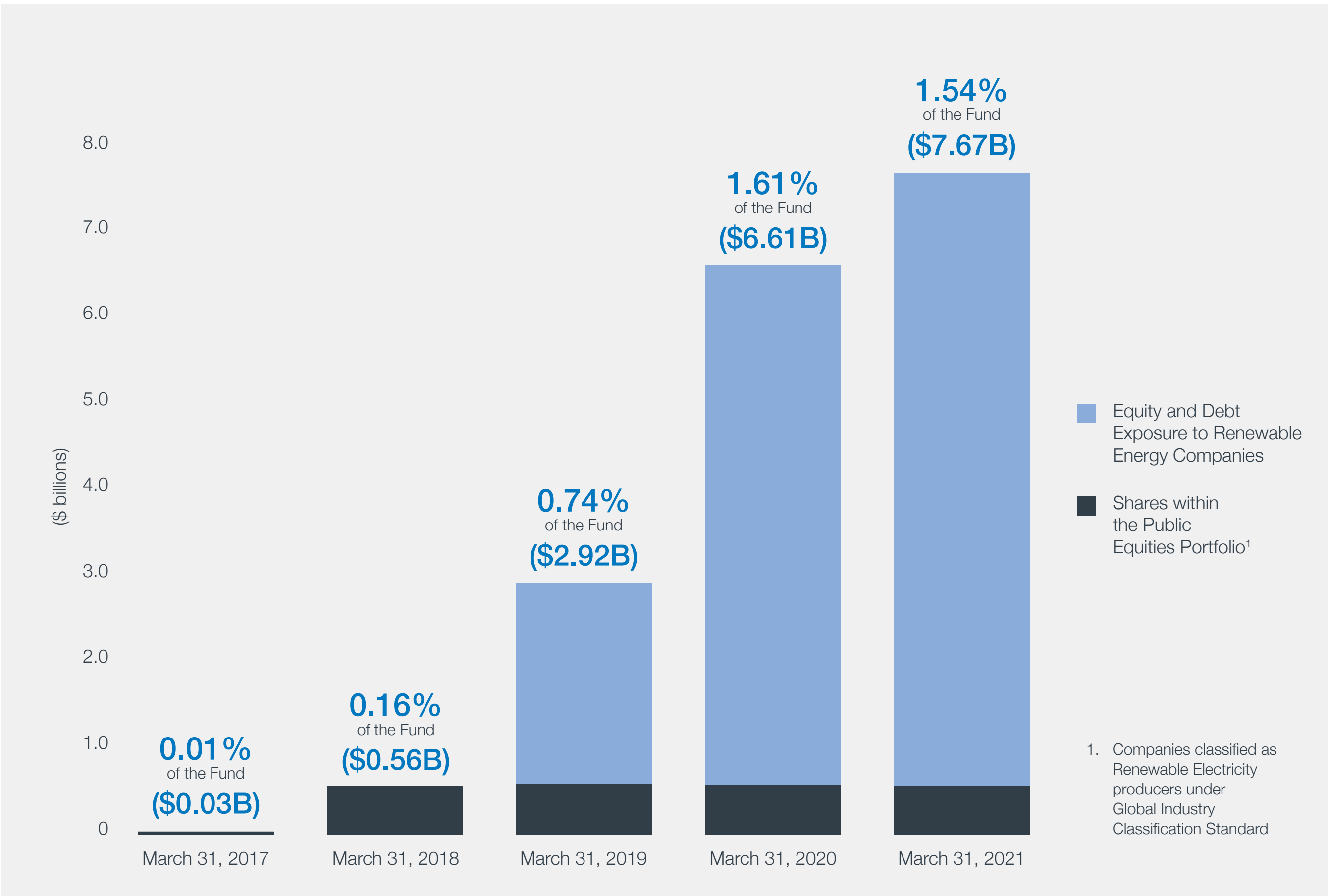
Maple Power: Joint venture between Enbridge Inc. and CPP Investments with the objective of investing in and managing offshore wind projects in Europe.

Pattern Energy: Leading U.S.-based independent renewable energy company with 4.4 GW of operating wind and solar projects in North America and Japan.

ReNew Power: One of India's leading clean energy companies, with approximately 10 GW of capacity diversified across wind, utility-scale solar and rooftop solar power-producing assets.

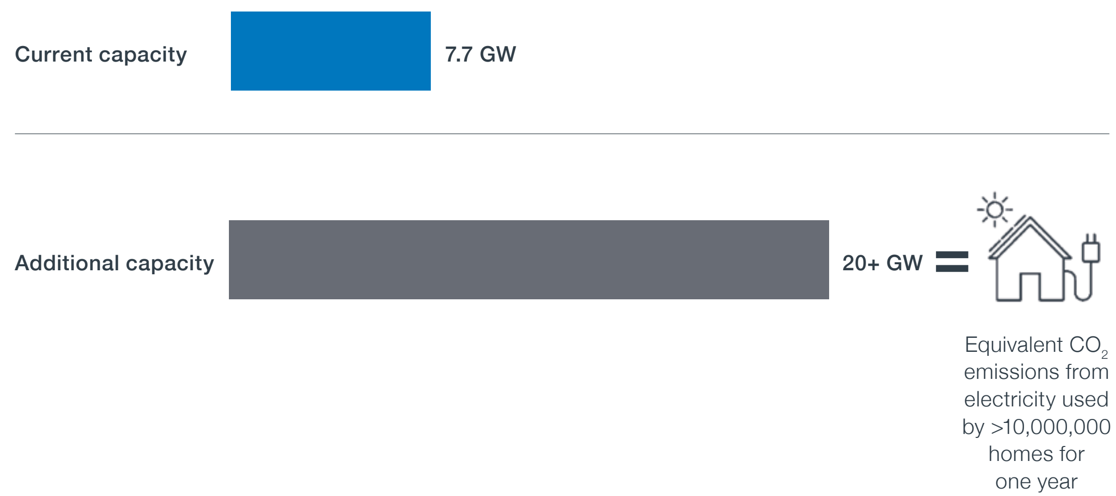


Increased holdings in renewables



Companies in our Sustainable Energies Group's portfolio are developing more renewable capacity globally

In addition to their current capacities, portfolio companies in our Sustainable Energies' portfolio are developing more than 20 GW of new renewable energy capacity globally, which if operational would power an additional 10 million homes with clean energy.



Green Bonds

In 2018, CPP Investments became the first pension fund manager to issue a green bond.

Green bonds provide CPP Investments with additional funding as we pursue acquisitions of attractive long-term investments that will accelerate the energy transition to a lower-carbon economy.

More information on our Green Bond Program can be found on our website.

The need to transition towards a lower-carbon economy presents opportunities in emerging technologies, renewable energy and carbon reduction in conventional industries. CPP Investments is a significant equity investor in many of these technologies and industries. Investing in our Green Bond Program provides lenders exposure to these investments.

CPP Investments has issued green bonds in Australian dollars, Canadian dollars, euros and U.S. dollars. Six outstanding issuances, totalling in excess of $5 billion, provide our global investor base an opportunity to participate in the transition to a low-carbon economy.

Our Sustainable Investing Committee (SIC) determines which projects would be eligible for green bond proceeds in accordance with the Green Bond Framework. As of June 30, 2021, the framework, includes:

Renewable Energy (Wind and Solar)

- Acquisition, operation, maintenance and upgrades of wind and solar-energy projects
- Efficiency improvements to wind- and solar-energy projects

Sustainable Water and Wastewater Management

- Acquisition, operation and upgrades of projects that improve efficiency of water distribution and water recycling services
- Investments in tail water recovery systems, which collect run-off water from fields that is then recycled for agricultural production

Green Buildings (LEED Platinum-certified)

- Direct investments in buildings certified as LEED Platinum over the 24-month lookback period and during the life of the bond

As of October 14, 2021, the Green Bond Framework has been updated and is available on our website. Since this Report covers the period from July 1, 2020 - June 30, 2021, this reporting is based on our 2018 Framework which is applicable through October 13, 2021.

Highlights 2021[1]

3 Green Bonds
(AUD)

$948 Million Raised
(Net issuance of $328 million after accounting for $620 million maturity)

1 New Renewable Energy Project

9.91 Million Metric Tons of CO_2
in avoided GHG emissions per year

Equivalent to GHG emissions from
2,155,428 passenger cars
driven in one year[2]

14.98 Million Megawatt Hours (MWh)
of renewable energy generation contributed annually

Equivalent to CO_2 emissions from electricity used by
1,928,330 homes
for one year[2]

1. For the period covered by this report (i.e., July 1, 2020 – June 30, 2021).
2. Data is derived using the EPA 2020 website: **https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator** based on CPP Investments' pro rata investment in renewable energy only.

Green Bond Impact Report

Green Bond Register

The Sustainable Investing Committee also oversees the Green Bond Register. It documents the value of green bond issuance and to which assets proceeds have been allocated. To the right is the register as of June 30, 2021 (for further details on CPP Investments renewable energy assets, see **pages 25–26**). All figures are in Canadian dollars unless otherwise noted.

As of October 14, 2021, the Green Bond Framework has been updated and is available on our **website**. Since this Report covers the period from July 1, 2020 - June 30, 2021, this reporting is based on our **2018 Framework** which is applicable through October 13, 2021.

Register for 2021 Green Bond Issuance:[1]

		As of June 30, 2021
Bonds		
AUD	A$150,000,000	$139,448,059
AUD	A$120,000,000	$111,558,447
AUD	A$750,000,000	$697,240,294
Total Bonds		**$948,246,800**
Exchange Rates – June 30, 2021		
USD/CAD		1.2383
EUR/CAD		1.4685
BRL/CAD		0.2468
AUD/CAD		0.9297

	Investment Currency
Renewable Energy	
Pattern Energy[2]	USD
Maple Power – Éolien Maritime France	EUR
Total Assets	**$1,627,428,000**

Register for 2020 Green Bond Issuance:[1]

		As of June 30, 2020
Bonds		
USD	US$500,000,000	$681,000,000
EUR	€1,000,000,000	$1,529,750,000
Total Bonds		**$2,210,750,000**
Exchange Rates – June 30, 2020		
USD/CAD		1.36200
EUR/CAD		1.52975

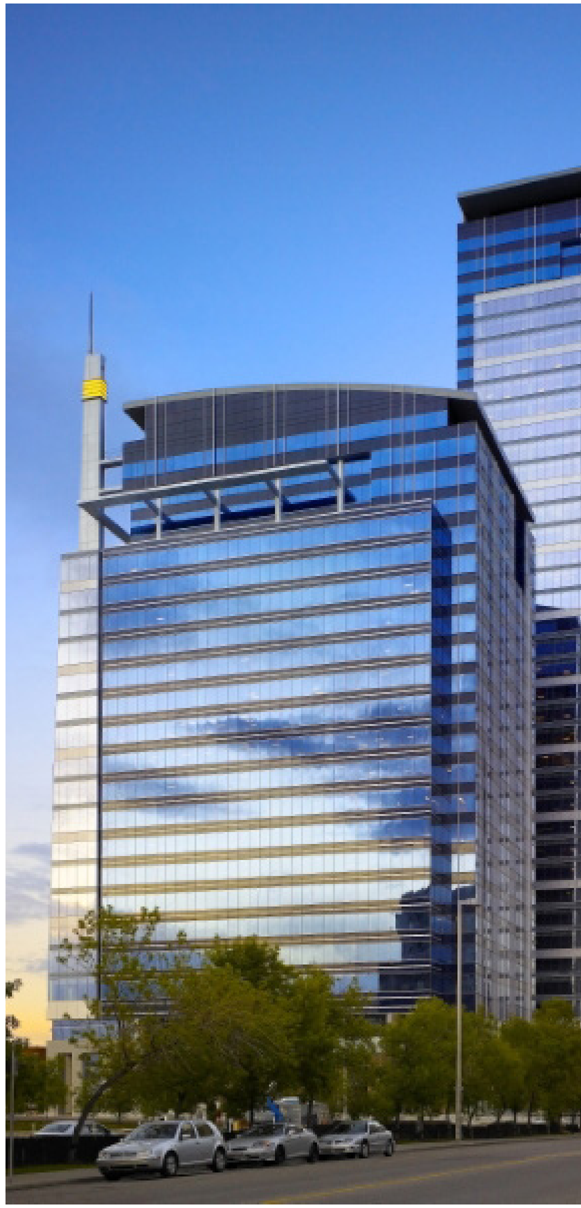
	Investment Currency
Renewable Energy	
Pattern Energy[2]	USD
Total Assets	$2,315,400,000

Register for 2019 Green Bond Issuance:[1]

		As of June 28, 2019
Bonds		
CAD	$1,500,000,000	$1,500,000,000
EUR	€1,000,000,000	$1,488,100,000
Total Bonds		**$2,988,100,000**

	Investment Currency
Renewable Energy	
Cordelio Power	CAD
Votorantim Energia's Piaul I & Ventos III	BRL
Enbridge	CAD
Maple Power – Hohe See/Albatros Germany	EUR
Enbridge	USD
ReNew Power	USD
Green Buildings	
Centennial Place (Alberta)	CAD
Eau Claire Tower (Alberta)	CAD
Richmond Adelaide Centre – 111 Richmond (Ontario)	CAD
Total Assets	**$3,033,821,458**

1. The CAD values of bonds and assets reported in this register are based on exchange rates on the last business day in June of each respective reporting year.
2. Pattern Energy has been allocated to bonds issued in our 2020 and 2021 Green Bond Registers. The CAD value of this asset reported across all reporting years is based on exchange rates on June 30, 2020.



Impact of Operational Renewable Energy Projects

Investment	Location	Date of Initial Investment	Description	Technology	CPP Investments Ownership[1]	Gross Capacity (GW)[2]	CPP Investments' Pro rata Capacity (GW)
Pattern Energy[3]	Canada/United States/Japan	March 2020	A company with a portfolio of 28 renewable energy projects in the United States, Canada and Japan	Wind	69%	3.38	2.33
Cordelio Power[3,4]	Canada	April 2018	Portfolio of six Canadian operating wind- and solar-power projects	Solar Wind	100%	0.20	0.20
Enbridge[3]	Canada/United States	May 2018	North American onshore renewable power assets	Solar	49%	1.30	0.64
Maple Power – Hohe See/Albatros[3]	Germany	May 2018	Two German offshore wind projects	Wind	49%	0.31	0.15
Votorantim Energia[3]	Brazil	December 2017	Two operational wind parks located in northeastern Brazil	Wind	50%	0.57	0.29
ReNew Power[5]	India	January 2018	Leading Indian renewable energy developer and operator with clean energy capacity diversified across wind, utility-scale solar and rooftop solar	Wind	18%	3.59	0.65
				Solar	18%	2.00	0.36
Maple Power – Éolien Maritime France	France	March 2021	Three offshore wind farms under construction in France	Wind	49%	Under construction	Under construction
Total						**11.35**	**4.62**

1. Figures are rounded up.
2. Gross capacity represents the total capacity of the sites wholly or partially owned by CPP Investments' portfolio companies, after deducting any minority interests.
3. For period June 2020 – May 2021.
4. In January 2021, Cordelio Power sold 49% of its stake in portfolio assets, lowering CPP Investments' pro rata share of capacity.
5. For period April 2020 – March 2021.

Estimated Green Building Impact[1]

Qualitative Summary[2]

Investment	Location	Description	CPP Investments Ownership	Certification
Richmond Adelaide Centre – 111 Richmond	Canada	255,313 sq.ft. Multipurpose Commercial Space	50%	LEED EB Platinum
Eau Claire Tower	Canada	659,839 sq.ft. Multipurpose Commercial Space	50%	LEED CS Platinum
Centennial Place	Canada	1,458,600 sq.ft. Multipurpose Commercial Space	50%	LEED EB Platinum

Quantitative Summary – Energy Use Intensity (EUI) and Carbon Emission Intensity (CEI)[1]

Investment	EUI (MJ/sq. ft.)	Industry Standard EUI (MJ/sq. ft.)	EUI Variation[3]	CEI (kg CO_2e/sq. ft.)	Industry Standard CEI (kg CO_2e/sq. ft.)	CEI Variation[3]
Richmond Adelaide Centre – 111 Richmond[2]	91.86	143.99	-36%	3.34	5.23	-36%
Eau Claire Tower	78.38	143.99	-46%	8.21	16.16	-49%
Centennial Place	81.71	143.99	-43%	8.65	16.16	-46%

1. Industry standard EUI and CEI rates are calculated from data provided in the **Energy Star – Canadian Energy Use Intensity by Property Type Technical Reference**. Source EUI is used for this calculation.
2. 111 Richmond's lower EUI and CEI variation metrics differ from the standard in comparison to other buildings due to its older age. Eau Claire Tower utilizes Smart controls while Centennial Place has a co-gen system in place to produce incremental efficiencies.
3. EUI and CEI variation metrics are for the entire asset and not the pro rata percentage of CPP Investments.

Proxy Voting

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We believe that good corporate governance enhances long-term shareholder value. One of the most effective ways we can convey our views to boards of directors and management of public companies and fulfil our stewardship responsibilities as an active owner is to vote our proxies at annual and special meetings of shareholders. We oppose resolutions that are likely to diminish long-term shareholder value, even though they may produce short-term gains.

How We Vote

Voting Process

We make all of our proxy voting decisions independently based on our **Proxy Voting Principles and Guidelines**. We engage an outside advisor to make initial, customized vote recommendations based on these Proxy Voting Principles and Guidelines. Our in-house Sustainable Investing (SI) team considers these recommendations, conducts internal research, consults with our investment teams, and engages with companies and stakeholders, if necessary, to arrive at our voting decisions. We post **how we intend to vote** on our website prior to each shareholder meeting.

CPP Investments conducts an annual review of our Proxy Voting Principles and Guidelines to ensure they reflect evolving global governance best practices. The process takes input from sources including our SI group and SI Committee. The updated Proxy Voting Principles and Guidelines are reviewed and approved annually by CPP Investments' Board of Directors.

Vote Decisions

Our Proxy Voting Principles and Guidelines have two purposes: (i) to give the directors and officers of companies in which we own shares guidance on how CPP Investments is likely to vote on matters put to the shareholders; and (ii) to communicate our views on other important matters that boards will deal with in the normal course of business. We normally support resolutions empowering boards of directors to act in the best interests of the corporation, affirm management accountability and support shareholder democracy. We do not support resolutions that seek for shareholders to provide direct oversight of management. We also normally support resolutions that request enhanced practices, policies and/or disclosure related to material environmental and social matters. For example, since 2004, CPP Investments has backed more than 50 shareholder proposals requesting tobacco companies improve disclosure and standards on a range of ESG factors, including health impacts and human rights-related matters. We do not support shareholder proposals if they are overly prescriptive or duplicative of initiatives already in place or underway, or if they are likely to detract from long-term company performance.

Our Proxy Voting Principles and Guidelines contain guidelines, not rigid rules, and we will respond to specific matters on a company-by-company basis. Recognizing that governance matters may involve compromise between potential benefits and adverse effects on a company, we consider our proxy voting decisions in the context of the company's governance practices as a whole, rather than evaluating items in isolation. While we will consider local laws and prevailing governance practices when exercising our votes, our Proxy Voting Principles and Guidelines are intended to apply globally.

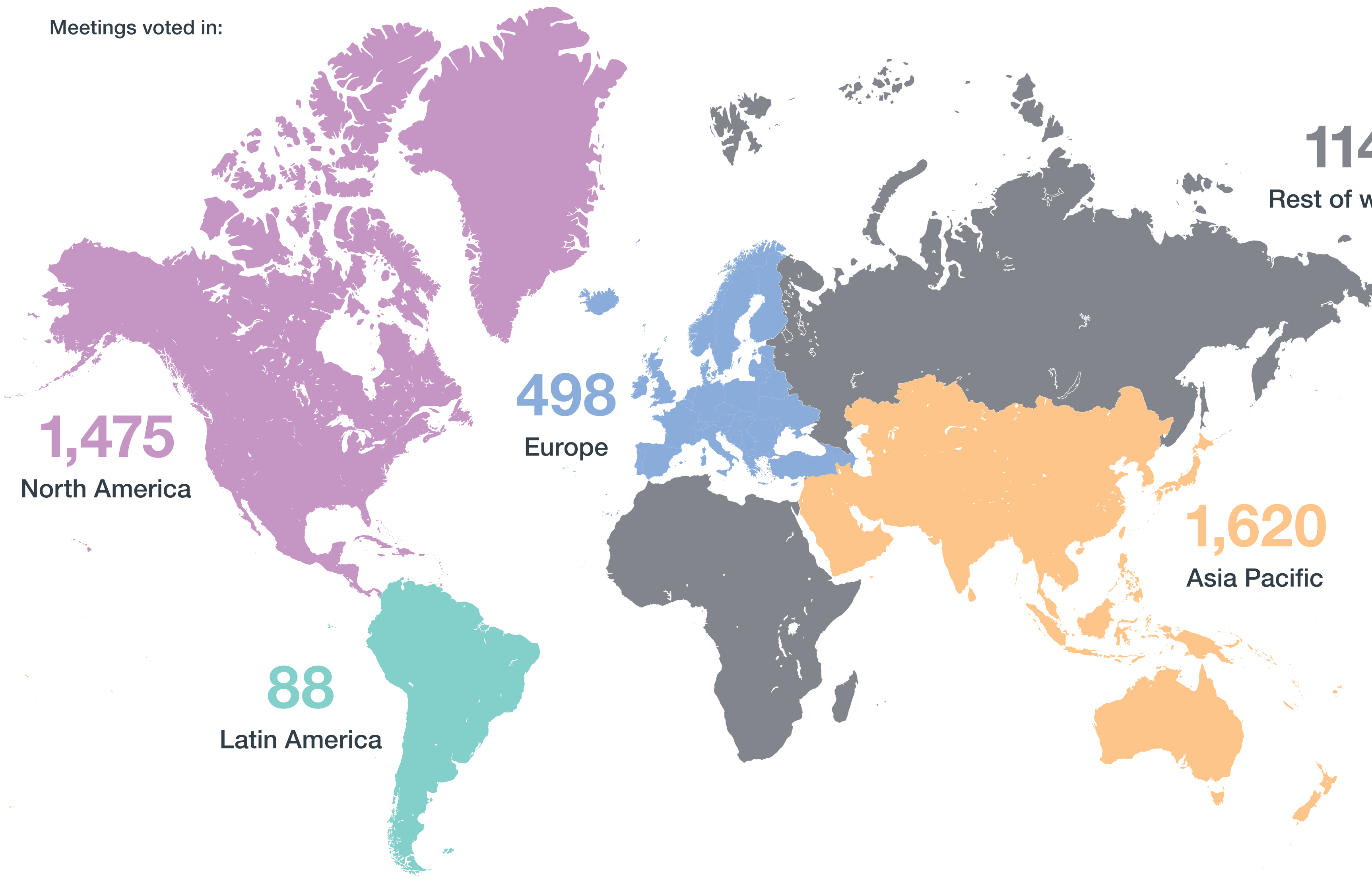
2021 Proxy Voting Overview

2021 Proxy Voting Facts

As at June 30, 2021

We conveyed our views at
3,795
meetings

Meetings voted in:



We voted on
40,658
agenda items

We voted in
56
countries

We voted against management in
10.69%
of cases

2021 Voting Themes

Below are some of the key themes from the 2021 proxy season as at June 30, 2021 and our approach to addressing them.

Climate Change

New Policies Related to Climate Change

- **Adopted a new Climate Change Voting Policy:** For companies that contribute the largest climate change risks in our public equities portfolio, and where boards have failed to demonstrate adequate consideration of physical and transition-related impacts from climate change, we will now vote against the reappointment of the risk committee chair (or appropriate equivalent).
- **Provided guidelines for "say on climate" proposals:** Our updated guidelines clarify that we do not support shareholder votes that seek to direct corporate strategy, including proposals calling for annual shareholder approval of company climate change strategy. Among other concerns, we view these proposals as inconsistent with the roles and responsibilities of owners, directors and managers (see **page 14** for details). We did not support these proposals at 15 companies.

Climate change remains one of the most significant and challenging investment considerations of our time, and specifically addressing climate change in our investment activities better positions us to make more informed long-term decisions.

In our role as a shareholder, we respect that companies we invest in determine their own specific climate-related transition strategies. However, we expect boards and executives to have integrated climate risks and opportunities into their strategy, operations and where material, disclosure consistent with long-term value creation for the company.

Where a company has clear intrinsic climate-related risk, but no publicly disclosed strategy to navigate this, we must reasonably conclude that directors are failing in their duty to act in the best long-term interests of the company. While we do not seek to prescribe what this strategy should look like, we expect the board to ensure it is in place.

We have analyzed our holdings to determine which companies contribute the most climate change risk in our public equities portfolio through top-down assessment work, as well as with security-specific climate change data from third-party providers. Among this universe, we analyzed company-specific exposures and publicly disclosed materials to assess whether boards have failed to demonstrate adequate consideration of physical and transition-related impacts from climate change. We define this failure as having no disclosed governance structure for monitoring climate risks or opportunities, no identification or quantification of these, and/or no articulation of how the company has integrated related insights into strategy and operations.

Since implementing our Climate Change Voting Policy in March 2021, if engagement was unsuccessful, we voted against the reappointment of the chair of the risk committee (or an appropriate equivalent committee) at 42 companies, which resulted in 53 votes against directors. We will continue to report on the number of companies we actively vote against under this new policy.

This year, we also engaged with our portfolio companies to better understand their practices and encourage alignment of reporting with the Task Force on Climate-related Disclosures. Our engagement led to material commitments and improvements on climate-related disclosures and practices at 17 companies. In addition to our Climate Change Voting Policy, we also supported 19 shareholder resolutions that sought deeper disclosure on climate change risks and opportunities.

We will consider escalating this voting practice to the entire risk committee, the board chair and entire board where we see inaction in addressing this area in future years.

42

companies where we voted against the reappointment of the chair of the risk committee (or an appropriate equivalent committee)

This resulted in

53

votes against directors

17

companies where our engagement led to material commitments and improvements on climate-related disclosures and practices

Diversity

New Policies Related to Our Diversity Expectations

- **Increased our gender threshold to 30%:** For companies in North America, developed Europe and Australia, we will now vote against the nominating committee chair if the board has less than rounded 30% female directors, provided there are no extenuating circumstances. In all other markets, our threshold expectation continues to be one (1) female director. We will continue to re-evaluate these threshold expectations and consider updates to our expectations for board gender diversity over time.
- **Broadened the scope of explicit expectations:** Our Proxy Voting Principles and Guidelines now explicitly state that we consider all forms of diversity, including but not limited to ethnicity, race and age when evaluating board diversity and that our diversity expectations extend to executive management teams.

CPP Investments is committed to advancing diverse representation on boards and throughout all levels of organizations. We have long believed companies with diverse boards are more likely to achieve superior financial performance. This is why we increasingly use our voting power to encourage companies to appoint more women to their boards. Our goal is to improve the diversity balance and, hence, the overall effectiveness of public company boards worldwide.

We first introduced our board gender diversity voting practice in Canada in 2017, and have continued to evolve our practices each year, including introducing our global gender diversity voting practice in the 2019 voting season.

In 2020, in Canada, we held companies in the S&P/TSX composite index to a minimum two women on board standard, consistent with our 30% target for women on boards and executive teams of these companies by 2022 as set out in the **30% Club Canadian Investor Group's Statement of Intent**. We held all other public companies globally to a minimum expectation of one female director.

We are encouraged by the progress we have seen with the increase in percentage of women on boards in developed markets. However, more work needs to be done. With this in mind, in 2021, we further expanded our expectations for gender representation to encompass more markets and higher thresholds for existing markets. For companies in North America (including Canada), developed Europe and Australia, we will now vote against the nominating committee chair if the board has less than rounded 30% female directors, provided there are no extenuating circumstances. In all other markets, we will continue to vote against the nominating committee chair if the board does not have at least one female director, provided there are no extenuating circumstances.

Evolution of Our Gender Diversity Voting Practices

		2017	2018	2019	2020	2021
POLICIES	Canada	• **Introduced our gender diversity voting practice** in Canada • For our Canadian public holdings, we **started voting against the election of the chair of the nominating committee if a board had no (0) female directors***	• **Escalated our gender diversity practice** in Canada • For our Canadian public holdings, we **started voting against all nominating committee members at companies where we voted against the nominating committee chair in 2017** if the company had since made no progress improving its lack of board gender diversity*	• For our Canadian public holdings, we **escalated our approach to vote against nominating committee chairs of S&P/TSX composite boards with only one (1) female director***	• During the 2020 season, we **considered voting against the entire committee responsible for director nominations if sufficient progress on gender diversity was not made at companies that we voted against in 2019**	• **Escalated our global gender diversity voting practices for companies in North America, developed Europe and Australia, where we now vote against the nominating committee chair if the board has less than rounded 30% female directors*** • **In all other markets, we will continue to vote against the nominating committee chair if the board does not have at least one female director*** • **We continue to escalate our opposition to the entire nominating committee if sufficient progress was not made in subsequent years**
	Global			• **Introduced our global gender diversity voting practice** • For our global public holdings, we **started voting against the election of nominating committee chair if the board had no (0) female directors***	• **Escalated our global gender diversity voting practice to vote against the entire committee responsible for director nominations if sufficient progress on gender diversity was not made** at companies that we voted against in 2019	
STATISTICS	Canada	• Voted at shareholder meetings for **45** Canadian public companies with no (0) female directors	• **21** of the 45 companies we voted against in 2017 added a female director to their boards over the last year • Voted at shareholder meetings for **22** Canadian public companies with no (0) female directors • Voted against the nominating committee chair at **6** companies • Voted against entire nominating committee at **7** companies	• Voted against directors at **13** Canadian public companies for having no (0) female directors • Voted against directors at **26** Canadian public companies on the S&P/TSX composite for having only one (1) woman on the board	• Voted against directors at only **10** Canadian public companies due to gender diversity concerns; **9** of these were S&P/TSX composite companies with only one (1) woman on the board, while one (1) was a non-S&P/TSX composite company with no (0) women on the board	• **Voted against 481 companies globally** **Canada: 18** **USA: 257** **Europe: 33** **Asia Pacific: 168** **Latin America: 4** **Rest of World: 1** – **Of the 481 total companies we voted against, we voted against 290 of those companies under our newly adopted 30% threshold for North America, developed Europe and Australia** **Canada: 13** **USA: 251** **Developed Europe: 26** **Australia: 0**
	Global			• Voted against the election of **626** directors globally at companies with no (0) female directors	• Voted against **323** of our public portfolio companies globally (excluding Canada) for failing to have any women on their boards	

* Provided there are no extenuating circumstances warranting an exception.

Executive Compensation

Updated Our Executive Compensation Principles in Light of COVID-19

COVID-19 has presented challenging circumstances for compensation committees and boards seeking to grant appropriate executive pay outcomes.

We updated our executive compensation principles to set out our view that, when structuring executive pay, we expect boards to take into account economic and market impacts in a reasonable manner that reflects the shareholder experience and how this performance was achieved.

When evaluating executive compensation this season, we reviewed company circumstances on a case-by-case basis. Important considerations included:

- whether overall pay outcomes were reasonable, considering factors including the performance of the executive team, the shareholder experience, the extent of employee layoffs or furloughs, and whether government aid or bailout money was received by the company; and
- the board's decision-making process and rationale for any compensation changes or adjustments made in response to COVID-19, which we expected to be clearly disclosed.

Approve Executive Compensation:

20.8% AGAINST

(318 votes against/1,526 total votes)

Rationale: voted against where the company was deficient in linking executive pay with long-term company performance

Approve Share Plan Grants:

50.7% AGAINST

(104 votes against/205 total votes)

Rationale: voted against where the plan cost was excessive and did not contain challenging performance criteria

Say on Pay Frequency:

100% FOR

(66 votes for/66 total votes)

Rationale: annual Say on Pay votes promote effective oversight of executive compensation and allow shareholders to provide timely feedback to the company

Compensation-Related Shareholder Proposals:

40.8% FOR

(20 votes for/49 total votes)

Rationale: supported shareholder proposals that strengthen pay and performance alignment and help mitigate compensation-related risk

Newly Public Companies

Added Guidance on Our Governance Expectations for Newly Public Companies

We added a new section to provide guidance on our governance expectations for newly public companies. We also updated our dual-class share structure policy to explicitly set out our view that, where such structures do exist, we support the adoption of sunset clauses for classes of shares with unequal voting rights to prevent these structures from existing in perpetuity.

The transition from a private to a public company generally involves undertaking significant corporate governance changes to meet listing standards and new shareholder expectations.

In some cases, companies adopt anti-takeover measures at the time of an initial public offering (IPO) that would not be considered best practice for a public company, such as dual-class share structures with unequal voting rights, classified boards, supermajority vote requirements and other measures that limit shareholder rights. We oppose these measures and maintain the same governance expectations for all public companies.

Where companies have adopted restrictive governance measures with no sunset mechanism or there is otherwise no clear path to the company aligning its governance with public market expectations, we will generally vote against relevant directors. In 2021, we voted against 224 directors at 82 companies under our newly public company voting policy.

NEWLY PUBLIC COMPANIES CASE STUDIES

Improving governance at newly public companies

In 2019, a company in our Relationship Investments portfolio went public with several shareholder rights restrictions. As a result, at the company's 2020 Annual General Meeting (AGM), incumbent directors received relatively low shareholder support. At its 2021 AGM, the company adopted a majority vote standard and a proxy access right. The company also put two management proposals on the ballot to eliminate supermajority vote requirements and provide a special meeting right. Both of these management proposals passed. Due to these significant governance improvements, CPP Investments supported the re-election of all directors on the ballot at the 2021 AGM. The company is in the process of declassifying its board so that directors are elected annually so as to further increase accountability and responsiveness to shareholders.

Over the last two years, our Active Fundamental Equities (AFE) and Sustainable Investing (SI) teams have engaged with board and management representatives from one of our portfolio companies to discuss changes to shareholder voting requirements adopted on IPO. AFE invests in large-cap public, or soon-to-be public (pre-IPO), equities in the developed markets of North America and Europe.

We initially opposed the election of all the company's incumbent directors because the shareholder voting restrictions adopted on IPO conflicted with CPP Investments' governance expectations, as set out in our Proxy Voting Principles and Guidelines.

Based on a peer benchmarking and engagement with us and other investors, the company removed its plurality vote standard for director elections and adopted majority voting, resulting in each nominee having to receive a majority of shareholder votes in support to be elected. While the company is still addressing another voting restriction, because of our productive engagement with the company's board and management, the thoughtfulness with which management is approaching these topics, and the considerable progress they have already made so far, we decided to de-escalate our opposition for the 2021 AGM and only opposed one director nominee.

We have also seen improvements in the company's proxy disclosure this year and the company is working towards releasing a 2021 sustainability report based on SASB Standards and the TCFD Framework, which is a move that we support (as highlighted on page 14).

Virtual Meetings

New Policy on Virtual Meetings

In light of shareholder meeting trends that we have seen as a result of the COVID-19 pandemic, we added a new section in our Proxy Voting Principles and Guidelines on our best practice expectations for virtual meetings. We support virtual or hybrid shareholder meetings where such formats preserve shareholders' ability to meaningfully attend, participate and communicate with management and directors of the company.

Companies may consider using a virtual or hybrid (virtual and in-person) format for their shareholders' meetings. The number of companies seeking to amend their articles to allow for virtual or hybrid meetings increased significantly in light of the COVID-19 pandemic and the resulting social distancing requirements.

While we recognize that virtual meetings may be more efficient or necessary in some circumstances, we expect companies using a virtual or hybrid meeting format to provide shareholders with equivalent opportunities to attend, participate and communicate as would be available at an in-person meeting.

We support virtual or hybrid shareholder meetings where such formats preserve shareholders' ability to meaningfully attend, participate and communicate with management and directors of the company. We oppose meeting formats that unreasonably restrict shareholder attendance, participation or communication.

In 2021, we voted against items related to virtual shareholder meetings including where the company only provided for one-way communication, where it was unclear whether shareholders' ability to participate in the meeting would be preserved, and where the company failed to provide sufficient information concerning the virtual meeting to allow us to cast an informed vote.

Chinese Market Proposals

We regularly review a number of proposal types specific to the Chinese market. Our approach to some common types of proposals includes the following:

- We generally support proposed investments of idle funds in short-term, principal-guaranteed, low-risk investment vehicles.
- We generally support loan guarantees for subsidiaries where the guarantee terms and rationale are disclosed and reasonable, the size of the guarantee is appropriate for the guarantor company's ownership interest in the subsidiary and the guarantor has not provided excessive aggregate guarantees.
- We generally support arrangements with group finance companies where the arrangement includes robust governance and risk control processes, and is in the long-term best interests of the company.
- We generally support approval of bill pool arrangements where there is compelling evidence of a robust governance and oversight structure, and the company is not taking on excessive risk.

CASE STUDY

Ensuring constructive dialogue with portfolio companies

Our Fundamental Equities Asia (FEA) team invests in developed and emerging public equity markets across Asia employing both our Active Fundamental Equities and Relationship Investments strategies. This past year, our FEA and SI teams engaged closely with a company in our FEA portfolio prior to their AGM to obtain details about and better understand the rationale for proposed changes. While we did not support all of the items up for vote, we had a constructive dialogue with the company that enabled us to appropriately consider the market and company context and vote for two of the three proposed changes. Our engagement with the company also helped them better understand the kinds of disclosure that foreign investors, like CPP Investments, typically expect. The company plans to implement these learnings on a go-forward basis.

2021 Collaboration Partners and Highlights

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We believe that by leveraging partnerships and collaborations, we can improve CPP Investments' impact on matters that impact ESG-related practices. Our collaborative efforts include but are not limited to: seeking to improve transparency and standards on ESG, conducting research, participating in ESG-related regulation consultations, promoting governance practices and advocating for long-term thinking in the investment and corporate worlds.

30% Club – Growth Through Diversity	Founding Member
ACGA	Member
BlackNorth	Signatory
CCGG – Canadian Coalition for Good Governance – The Voice of the Investor	Member
Catalyst – Workplaces that work for women	Member
CDP – Disclosure Insight Action	Investor Signatory
Council of Institutional Investors®	Associate Member
FCLTGLOBAL	Co-Founder
Investor Leadership Network	Partner
ICGN Member – Inspiring global governance standards – www.icgn.org	Member
IIGCC – The Institutional Investors Group on Climate Change	Supporting Partner
ILPA – Institutional Limited Partners Association	Member
PIAC – Pension Investment Association of Canada / Association canadienne des gestionnaires de caisses de retraite	Member
PRI – Principles for Responsible Investment	Founding Signatory
Value Reporting Foundation – SASB Standards	Investor Advisory Group Member
Canada – Sustainable Finance Action Council	Member
TCFD – Task Force on Climate-Related Financial Disclosures	Member
TSVCM	Member
World Economic Forum	Industry Partner

Highlights of Our Collaboration Efforts

The BlackNorth Initiative

The BlackNorth Initiative was created in June 2020 by the Canadian Council of Business Leaders Against Anti-Black Systemic Racism to address this issue in corporate Canada. We are one of more than 200 organizations who have signed BlackNorth's CEO pledge and committed to specific actions and targets designed to remove barriers and dismantle systemic anti-Black racism in the workplace. Our participation in the pledge is consistent with CPP Investments' belief that diversity in all its forms contributes to enhanced long-term outcomes, including value creation. We have numerous efforts underway to promote equity, diversity and inclusion at CPP Investments (see page 5 for details on some of our internal initiatives).

Canadian Coalition for Good Governance

The Canadian Coalition for Good Governance (CCGG) promotes good governance practices in Canadian public companies and the improvement of the regulatory environment to best align the interests of boards and management with those of their shareholders, and to promote the efficiency and effectiveness of the Canadian capital markets.

In March 2021, CPP Investments endorsed CCGG's Stewardship Principles, which are intended to help asset owners and asset managers in Canadian public equities be active and effective stewards of their investments. These voluntary principles are designed to help articulate ownership responsibilities.

Institutional Limited Partners Association

The Institutional Limited Partners Association (ILPA) is a non-profit dedicated exclusively to advancing the interest of Limited Partners (LPs) and their beneficiaries through education, research, advocacy and events. It has over 500 member institutions with more than US$2 trillion of private equity assets under management.

A representative from our Private Equity Funds team sits on ILPA's board and we are actively involved in ILPA's Diversity in Action initiative. This initiative brings together LPs and General Partners who share a commitment to advancing equity, diversity and inclusion in the private equity industry. Diversity in Action signatories currently undertake four essential equity, diversity and inclusion actions and at least two additional actions (from an optional set of nine) from ILPA's Diversity in Action framework, which includes a broad range of possible actions that span talent management, investment management and industry engagement.

Investor Leadership Network

The Investor Leadership Network (ILN) was created in 2018 during Canada's G7 presidency to promote collaboration between large investors on sustainability and long-term growth. CPP Investments co-leads the ILN's Climate Change Advisory Committee, which is focused on speeding up the implementation of uniform and comparable climate-related disclosure under the Task Force on Climate-related Financial Disclosures (TCFD) Framework.

The ILN shares our belief that stronger climate change-related disclosures help investors make better investment decisions. In September 2020, the ILN published **Climate Change Mitigation in Your Portfolio: Practical Tools for Investors.** This report provides detailed guidance for investors on strengthening climate-related disclosures, focused on decarbonization scenarios in line with the Paris Agreement.

We are also an active supporter of the ILN's initiative promoting diversity in the investment and financial sectors. In June 2021, the ILN published **Creating a More Inclusive Economy: Practical Insights from Global Institutional Investors.** This "state of the industry" report on equity, diversity and inclusion (EDI) showcases best practices from member organizations — both as employers and as investors — and provides a blueprint to help drive change in the investment and financial sectors. The report highlights that the lack of standardization in reporting and limited access to high-quality data, especially beyond gender is a shared challenge for investors as they seek to improve EDI integration.

SASB Standards

SASB Standards guide the disclosure of financially material sustainability information by companies to their investors. SASB Standards are maintained under the auspices of the Value Reporting Foundation, a global nonprofit organization that offers a comprehensive suite of resources designed to help businesses and investors develop a shared understanding of enterprise value — how it is created, preserved or eroded. The resources — including Integrated Thinking Principles, the Integrated Reporting Framework, and SASB Standards — can be used alone or in combination, depending on business needs. Richard Manley, our Head of Sustainable Investing, represents CPP Investments on SASB Standards' Investor Advisory Group (IAG). The IAG includes senior investment professionals from over 50 leading global asset managers committed to improving ESG-related management and disclosure.

Our ability to consider and integrate material ESG factors into our investment analysis relies on ESG information that is consistent, comparable, accurate and, ultimately, useful for making investment decisions. SASB Standards encourage companies to disclose financially relevant, potentially material industry-specific ESG factors in alignment with SASB standards. Our Head of SI is also a member of IAG's Corporate Engagement Working Group. 2020 saw a significant increase in corporate use of SASB standards. In 2020, 1,139 companies referenced SASB Standards in their disclosures. This represents an over 150% increase from 451 companies in 2019.

Sustainable Finance Action Council

The Sustainable Finance Action Council was launched in May 2021 by the Government of Canada to address the need for an increase in sustainable financial investments to secure long-term national economic strength. The Action Council brings together experts from the public and private sector, including Canadian pension funds, banks and insurance companies, to provide input on the market infrastructure needed for a strong and well-functioning sustainable finance market. Acknowledging the importance of representative decision-making, the council will include a focus on gender and diversity reporting across the public and private sectors. CPP Investments accepted an invitation to join the Action Council as part of our ongoing efforts to share our expertise in this area.

Our Senior Managing Director & Global Head of Public Affairs and Communications represents CPP Investments on the Action Council. Additionally, our Global Leadership Team – Managing Director, Head of Sustainable Investing represents CPP Investments on the Action Council's Disclosure Technical Expert Group, which advises the Action Council on moving towards mandatory TCFD-aligned climate disclosures in Canada.

Canada
Sustainable Finance Action Council

Task Force on Climate-related Financial Disclosures

The Financial Stability Board (FSB) is an international body created after the 2008 financial crisis to monitor financial system stability. FSB established the Task Force on Climate-related Financial Disclosures (TCFD) in 2015 to develop recommendations for more efficient and effective climate-related voluntary financial disclosures to promote more informed investment, credit and insurance underwriting decisions.

TCFD includes capital providers, insurers, large global companies from a range of financial and non-financial sectors, accounting and consulting firms, and credit rating agencies. CPP Investments is one of only two global pension fund managers represented on the TCFD.

The TCFD recommendations provide a framework intended to help investors and others in the financial community better understand and assess climate-related risks and opportunities. They are structured around four pillars: governance, strategy, risk management, and metrics and targets. CPP Investments has been a strong supporter of the TCFD, and fully adopted these recommendations by the end of fiscal 2021.

We believe our support of the TCFD recommendations will contribute to improved global disclosure of climate change-related risks and opportunities. This, in turn, will help asset owners, including CPP Investments, make sounder investment decisions as the world transitions to net zero.

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Task Force on Scaling Voluntary Carbon Markets

CPP Investments is a member of the Task Force on Scaling Voluntary Carbon Markets (TSVCM), a global private sector-led initiative working to scale an effective and efficient voluntary carbon market to help meet the goals of the Paris Agreement. The TSVCM's over 250 member institutions represent buyers and sellers of carbon credits, standard setters, the financial sector, market infrastructure providers, civil society, international organizations and academics.

In July 2021, TSVCM published a report that marks a significant step forward in bringing integrity and scale to voluntary carbon markets. The report set out next steps to the creation of a scaled, high-integrity voluntary market for the trading of carbon credits. We broadly support the recommendations of TSVCM.

TSVCM

Reporting in Accordance with the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)[1]

Governance

CPP Investments' governance related to climate change-related risks and opportunities reflects our belief that climate change is one of the largest and most challenging investment considerations of our time.

Our Board of Directors oversees Fund-wide efforts to understand and manage climate change-related risks and opportunities at the Fund. At least once a year, Management reports to the Board about our activities related to climate change. Our Chief Financial and Risk Officer (CFRO) and our Risk & Business Intelligence group report regularly to the Risk Committee of the Board on climate change-related risks, including updates on carbon footprint metrics and scenario analysis results. The approval of the Board's Investment Strategy Committee may be required for investment decisions where climate change-related impacts are deemed to have material strategic, reputational and/or risk considerations.

In 2018, we launched the climate change program, a cross-departmental, multi-year initiative designed to position us as a leader in understanding the investment risks and opportunities presented by climate change. The program was overseen by the Climate Change Steering Committee (CCSC), made up mostly of Senior Managing Directors who lead our various investment and operations departments. The CCSC oversaw our Climate Change Management Committee (CCMC), which in turn guided and supported the program's six work streams. The CCMC comprised managers from across investment and operations departments. We deliberately set up the governance of the program this way to reflect the cross-disciplinary nature of climate change and ensure firm-wide coordination.

Since April 2021, the program has evolved to a steady state with its work embedded in our ongoing investment processes and operations. To ensure the continuity of our strategic direction, cross-departmental collaboration, oversight and stakeholder communication relating to climate change, the Head of Sustainable Investing coordinates climate activities across the departments. This includes quarterly reporting on climate change to the Investment Strategy and Risk Committee, the highest-level management committee at the Fund. As well, as per our Climate Change Security Selection Framework, the Investment Decision Committee, our highest-level investment committee, assesses all significant investments where climate change impacts are deemed material to the transaction.

Finally, the CCSC and CCMC, along with the Green Bond Committee, have been consolidated into the Sustainable Investing Committee. This committee is now the central forum for the monitoring and guidance of issues related to ESG, including climate change. Specific members of the senior leadership team involved with climate change initiatives, as well as employees elsewhere in the organization, have part of their variable pay tied to progress on climate change-related objectives.

Strategy

CPP Investments has dedicated resources to understand, top-down and bottom-up, the risks and opportunities brought on by climate change from a financial point of view. Our Fund-wide approach integrates climate change considerations into all relevant investment activities and into our risk framework. This helps us build and protect long-term investment values. In the last 12 months, we continued to refine a climate change-related scenario analysis framework. It enables us to identify climate change-related risks and opportunities, assess the impact and resilience of our investments, and inform strategy and business planning. Scenario analysis is carried out across investment and non-investment departments as an integral part of portfolio design, investment due diligence and stress-testing processes.

Total Portfolio Design

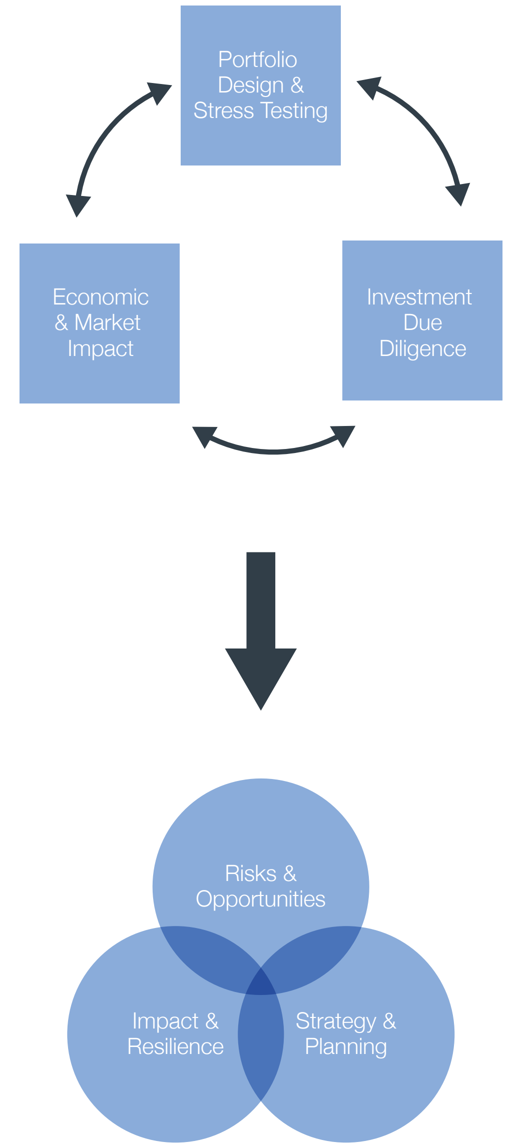
Total Fund Management (TFM) takes a top-down approach to climate change. We believe that consideration of climate risk at the strategic allocation level is important for institutional investors with diversified global portfolios. To this end, the department seeks to factor in a full range of climate change-related risks and opportunities as part of our investment strategy and total portfolio design.

A key element of TFM's approach involves estimating the economic impact of climate change, which we incorporate into our views on long-run returns. We currently measure these impacts through a combination of internal modelling (including our internally estimated physical risk damage function) and models and scenarios from the Intergovernmental Panel on Climate Change (IPCC). TFM also conducts scenario analysis on the sensitivity of returns and our asset allocation choices to different climate change pathways.

Incorporating climate change into asset allocation is an evolving field and requires a multifaceted approach. As such, TFM is continuing to develop our capabilities for evaluating climate change risk and exposure at the total Fund level, refining our existing tools and expanding our toolkit.

1. This reporting is as at June 30, 2021.

Scenario Analysis Framework



Climate Change Stress Testing

The Risk & Business Intelligence Group actively measures and monitors the inherent climate change risk in the Fund. Risk metrics such as carbon emissions, fossil fuel exposure and climate value-at-risk are reported and reviewed with management committees at least quarterly. To augment these monitoring activities, CPP Investments uses scenario analysis to assess potential financial impacts of climate change risk-related stress events. We stress test the resilience of our investments under a range of plausible scenarios, including extreme events and exploring a range of temperature outcomes, using both top-down and bottom-up approaches to quantify financial impacts.

We explore different climate change-related pathways resulting in a range of temperature outcomes — for example, scenarios with 1.5°C, 2°C, 3°C and 4°C futures. We also look at different emissions pathways — for example, changes in emission trajectories. In addition, we use stress-testing guidelines from regulators and other authoritative agencies such as the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) and the Prudential Regulation Authority (PRA).

The top-down approach estimates the systemic impact of climate-change risk to GDP and broad market at the country and sector levels. Those impact estimates are further translated into potential shocks to financial variables consistent with our investment risk stress-testing methodologies.

The bottom-up approach estimates the valuation impact at the portfolio company level due to its exposure to a range of transition and physical risks and opportunities, as for example, carbon pricing and extreme weather events. The company-level results are then aggregated to the portfolio level. The two approaches are complementary, and both provide important insights for decision-making.

The results of our assessments thus far suggest that:

- In a business-as-usual scenario where carbon prices do not increase markedly from their current levels, we estimate the Fund's market value could be negatively impacted by up to 4% in a one-in-20-year event, or up to 10% in a one-in-100-year event.
- Should policy actions be more heavily concentrated in years after 2030 by adopting stricter mitigation efforts in order to limit warming to no more than 2°C, we estimate the Fund's market value could be negatively impacted by up to 6% of the market value for a one-in-20-year event, or 8% for a one-in-100-year event.

These estimates are highly sensitive to the assumptions we make. The range of possible outcomes can be very wide with an average impact that is significantly lower than the extremes. We will continue to refine the views and assumptions underlying the assessment. We will also continue to evolve our climate change stress-testing capabilities by working collaboratively with other organizations and regulators.

Security-level Climate Change Risks and Opportunities

For investment decisions where climate change impacts are deemed to be material to the transaction or asset management, our Climate Change Security Selection Framework requires consideration of the financial impacts of both high-physical and high-transition risk scenarios (our "bookend scenarios"). We use a variety of tools and resources that align with the bookend scenarios to determine those financial impacts.

The framework must be applied to any transaction requiring Investment Decision Committee approval. This year, we also started applying this framework to existing investments in our portfolio. This will allow us to develop action plans to mitigate identified risks, or realize opportunities related to climate change, or both.

For CPP Investments, climate change is not only about addressing risks — it is also about identifying opportunities. Our diversified investment strategy affords the flexibility to invest across asset classes into all types of climate change opportunities. In April 2021, we formed our Sustainable Energies Group (SEG) to combine our expertise in renewables, conventional energy, and new technology and service solutions. SEG is designed to provide capital for the growing number of market opportunities available as the energy sector evolves and global power demand grows, especially for low-carbon energy alternatives. In the last two years alone, we have more than doubled our investments in renewables from $2.9 billion to $7.7 billion. (For more details, see page 26.)

Similarly, in 2019, our Thematic Investing (TI) team launched its Climate Change Opportunities (CCO) strategy to identify companies responding to physical changes in our environment, regulatory and technological transitions, and evolving consumer preferences. (For details, see page 23.)

CPP Investments was the world's first pension fund manager to issue a green bond to help support our investments in opportunities as pursued by Sustainable Energies and other groups. Green bonds provide CPP Investments with additional funding as we pursue acquisitions, including renewable energy producers and LEED Platinum certified buildings. Green bond financing expands our investor base as we invest in assets that are resilient to the energy evolution (see pages 27–28).

Risk Management

Given our legislative objectives, managing risk is central to our work at CPP Investments. Climate change is a key strategic risk of CPP Investments' Integrated Risk Framework (IRF). Climate change investment risks relate to a broad array of complex interrelated risks, including physical and transition risks.

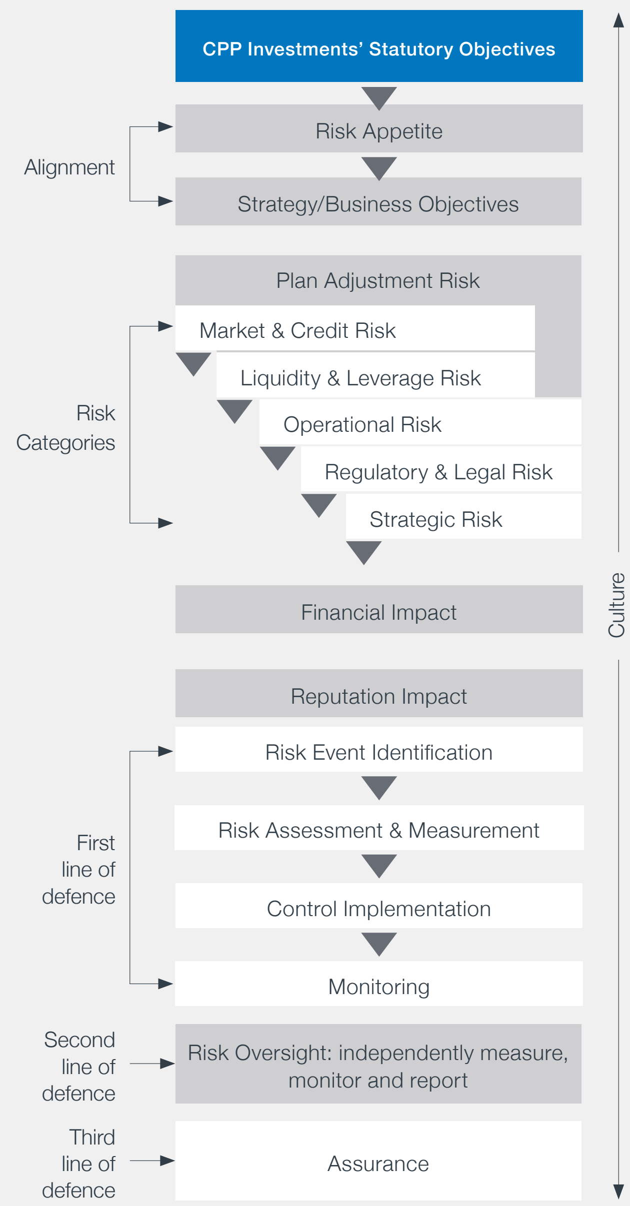
The IRF promotes clear lines of accountability across three lines of defence (see chart to the right):

- First line of defence: The leaders of each department are responsible for managing the risks assumed within their areas of responsibility. As it relates to climate change, our Climate Change Security Selection Framework requires investment teams to include impacts from relevant climate change-related risks and opportunities. They must do this at the initial screening and final investment-approval stages for our most material individual investments.
- Second line of defence: The CFRO and Risk & Business Intelligence group are accountable for setting risk policies, standards and guidelines, independently assessing risks, and challenging the first line's management of risks. Our Risk & Business Intelligence group uses various approaches to assess climate change risk, including scenario analysis.
- Third line of defence: Assurance and Advisory is accountable for providing independent assurance over the adequacy of risk governance and internal controls. This group supported a preliminary assessment of our internally developed carbon footprint tool.

Disclosure by our portfolio companies is critical to helping us assess climate change-related risks, so we work actively with companies to improve climate change-related disclosures.

Over time, we have pressed large greenhouse gas emitters in utilities, energy and other sectors for improved disclosure. CPP Investments also uses its voting power to support shareholder proposals that encourage companies to improve disclosure of climate change-related risks.

Integrated Risk Framework



Targets and Metrics

Targets

We believe active ownership and engagement with the boards of our portfolio companies is the more effective way to proactively reduce climate change risk in the Fund. Supporting the decarbonization of our economic system requires fundamental change in the real economy.

We will seek to invest in the optimal transition. This pathway will be influenced by government policy, consumer preferences, financial markets and technology innovation. Our legislative objectives will guide our actions as the full picture emerges. Accelerating the global energy transition requires a sophisticated, long-term approach, rather than blanket divestment. We will update stakeholders on our thinking before the end of our current fiscal year.

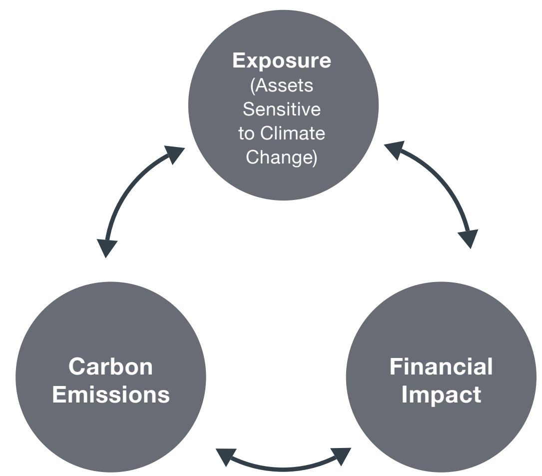
We actively assess companies' risk and opportunity profiles against specific scenarios that consider physical and transition-related impacts from climate change, as discussed on **page 22**.

We actively engage on climate change with companies in our portfolio that contribute the most to the Fund's climate change risks and opportunities. As shareholders, we respect that companies we invest in determine their own specific climate-related transition strategies. However, we seek to ensure that they have identified, quantified and integrated these factors into their strategy.

Furthermore, through our proxy voting practice on climate change, we will vote against the reappointment of the chair of the risk committee (or an appropriate equivalent committee) where boards have failed to demonstrate adequate consideration of physical and transition-related impacts from climate change. This practice applies to companies that contribute the largest climate change risks in our public equities portfolio. This year, we reported for the first time on the number of companies we actively voted against (see **page 33**).

Metrics

The recommendations of the TCFD are widely recognized as the global standard for climate change disclosure. We use a range of metrics to measure and monitor climate change-related risks, both quantitatively and qualitatively. We have established a formal Climate Change Risk Standard and Measurement Methodology, which include detailed methodologies, processes and accountabilities for key climate change risk metrics. We review the Standard and Methodology on an annual basis and will continue to evolve our risk metrics. Currently, we actively measure and monitor three key metrics at the total portfolio level (see below chart).



CPP Investments developed an in-house methodology to estimate the carbon emissions the Fund is exposed to through its investments. We first published carbon emissions metrics for our public equities portfolio in the ***2018 Report on Sustainable Investing***, including metrics on total carbon emissions and carbon intensity. In 2019, we provided a more comprehensive metric that included both our public and private investments. Starting in 2020, we estimate carbon emission metrics for all CPP Investments holdings including government issued securities.

We will continue to expand the scope of reporting in our annual Report on Sustainable Investing of the Fund's carbon intensity, exposure to carbon intensive assets and transition solutions and outcomes from our engagement activities. We will also assess and report on the GHG emissions of CPP Investments' own operations.

The TCFD has said there are challenges and limitations with carbon emissions metrics and noted these should not necessarily be interpreted as risk metrics. At the same time, it expects the release of this data to prompt important advancements. We agree with this position.

CPP Investments Carbon Footprint Metrics[1]

Consistent with TCFD recommended disclosures, we report the following:

Metrics	Non-Government Holdings[2]		Government-Issued Securities[3]	Description
	Long-term Capital Ownership	Equity Ownership		
Total Carbon Emissions (million tonnes of CO_2e)	22.0	38.5	54.9	The absolute GHG emissions associated with a portfolio; this figure would typically rise as assets under management grow
Carbon Footprint (tonnes of CO_2e/$ million invested)	51	89	646	Total carbon emissions for a portfolio normalized by the market value of the portfolio
Carbon Intensity (tonnes of CO_2e/$ million revenue)	158	179	259	Volume of carbon emissions per million dollars of revenue (carbon efficiency of a portfolio)
Weighted Average Carbon Intensity (tonnes of CO_2e/$ million revenue)	148	148	338	Portfolio's relative exposure to carbon-intensive industries

1. Based on the most recent annual emission information available at June 30, 2021, and allocated based on CPP Investments' June 30, 2021 holdings. Exchange rates applied are those as at the year-ends of the reported emissions and revenue data (GDP data for government-issued securities), and as at June 30, 2021 for market capitalizations and long-term debt of holdings.
2. Issuers' Scope 1 and 2 GHG emissions are allocated to our portfolio based on both equity ownership approach and long-term capital ownership approach, and the data is normalized based on the total in-scope portfolio value. Under the equity ownership approach, if an investor, for example, owns 5% of a company's total market capitalization, they own the same percentage of the company's emissions. Under the long-term capital ownership approach, if an investor, for example, owns 5% of the sum of a company's total market capitalization and its long-term debt, they own the same percentage of the company's emissions.
3. Country-wide emissions are used to estimate the government-issued securities. The emissions reflect the territorial emissions from all domestic production of goods and services within a national boundary, regardless of whether those goods and services are consumed domestically or exported. The country-wide emissions will include certain emissions from portfolio companies that are reported under the public and private assets. In addition, financial variables used to estimate the carbon footprint metrics, such as GDP, are not directly comparable to those used for the portfolio companies. Therefore, we don't aggregate the carbon footprint metrics of government-issued securities with other assets but report them separately.

Our Methodology

For our carbon disclosure, we use Scope 1 and 2 greenhouse gas (GHG) emissions for non-government holdings, and country-wide emissions for government-issued securities. Scope 1 refers to direct GHG emissions from an organization's owned and controlled sources. Scope 2 refers to indirect emissions from the generation of purchased energy. We use these types of emissions because the data set for Scope 1 and 2 emissions is currently the most complete and robust available. We currently do not include Scope 3 GHG emissions, i.e., all indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions, in our calculations as the quality and coverage of data for Scope 3 emissions is not yet sufficient. We continue to monitor developments in the availability of complete and robust Scope 3 data.

We have used emissions data provided by both S&P Trucost Ltd. (Trucost[1]), a division of S&P Global that provides investment-grade carbon and environmental data to investors, companies and governments, as well as MSCI ESG Research LLC,[2] a division of MSCI that provides in-depth research, ratings and analysis of environmental, social and governance-related business practices of companies worldwide. While this data is among the best currently available, it has limitations due to the different methodologies companies use to calculate GHG, incomplete reporting by some companies and the resulting use of partial company data to extrapolate or estimate historic emissions based on sector emissions performance.

The carbon footprint metrics estimation follows a waterfall methodology using different estimation sources in order of priority based on data availability. The priority setting is based on the principle of using as much directly disclosed data as possible, prioritizing more sophisticated estimation methods and balancing cost against benefit:

1. GHG emissions data that is disclosed by the public portfolio company and provided to CPP Investments either by a credible source such as Trucost or by the portfolio company;
2. GHG emissions data that is estimated by a credible source such as Trucost or by CPP Investments using specific comparable operating facilities similar to those of the issuers; and
3. GHG emissions data that is estimated by CPP Investments using a public proxy. The public proxy is established based on the average emission of the sector and country.

The data we have presented, while among the best available, is subject to inherent uncertainties and these uncertainties may be material.

We also recognize the assumptions made in applying the methodologies noted had a material impact on the resulting metrics. These include the use of a point-in-time approach to reporting on our portfolio, which may not fully reflect our holdings throughout the year, and the selection of the exchange rate when making calculations. So far, there is no authoritative guidance or emerging standard of disclosure in relation to these assumptions. As a result, the comparability of the data presented here for our portfolio to the carbon data disclosed for other portfolios is significantly reduced.

The chart below shows the different types of data available for our calculations (percentages based on value of holdings).

Types of data available for calculations

Source	**% of holdings**
Company-reported data	**30%**
Vendor-estimated data	**7%**
Proxy data	**46%**
Government-reported data	**16%**

1. Trucost, its affiliates, and their third-party data providers and licensors (Trucost Parties) do not guarantee the accuracy or completeness of the Information. Trucost Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Information. The Trucost Parties make no warranties or representations, and, to the maximum extent permitted by law, each Trucost party hereby expressly disclaims all implied warranties, including warranties or merchantability and fitness for a particular purpose. Without limiting any of the foregoing and to the maximum extent permitted by law, in no event shall any of the Trucost Parties have any liability regarding any of the information for direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited.
2. This disclosure was developed using information from MSCI ESG Research LLC or its affiliates or information providers. Although Canada Pension Plan Investment Board's information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information (the "Information") from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Green Office Buildings

Our One Queen Street office building was awarded the prestigious Leadership in Energy and Environmental Design (LEED) Existing Building: Operations & Maintenance Platinum Certification by the Canada Green Building Council in 2021. This is the highest level of recognition within the LEED rating system.

Many of our offices are also certified green in several ways, including:

- Hong Kong: All 12 commercial buildings operated by Hongkong Land in Central Hong Kong attained the highest Platinum rating of BEAM Plus, a green building certification system from the Hong Kong Green Building Council.
- London: 40 Portman Square achieved a BREEAM rating of Very Good in 2008. BREEAM is an international and independent certification of the sustainability of a building.
- New York: 510 Madison is LEED Gold certified.
- São Paulo: 4300 Faria Lima is LEED Gold certified.
- Sydney: Governor Macquarie Tower is rated 5/6 for energy, 4/6 for water and 5/6 for Indoor Environment on the NABERS Energy rating system in Australia.

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