

APPENDICES

TABLE OF CONTENTS

Greenwashing Awards	41
Methodology and Scoring Rubric	50
References	54

The 2022 Canadian Pension Climate Report card analyzes, assesses and ranks the progress made by eleven of Canada's largest pension managers in their approach to climate risk and investment decisions as they relate to the climate crisis. View the entire report at shifaction.ca/reportcard2022.

GREENWASHING AWARDS

In September 2022, Merriam-Webster officially added the word “greenwashing” to the English-language dictionary, defined as “to make (something, such as a product, policy, or practice) appear to be more environmentally friendly or less environmentally damaging than it really is.”¹

As part of Shift’s 2022 Canadian Pension Climate Report Card, we’re assigning three stars to the Canadian pension funds whose recent actions best meet the definition of greenwashing. PSP Investments receives the Bronze Star, Ontario Teachers’ takes the Silver Star and CPP Investments gets the Gold Star for misleading their members and Canadians on their approach to climate action.



BRONZE STAR FOR GREENWASHING - PSP INVESTMENTS

PSP receives the Bronze Star for greenwashing this year. PSP demonstrated progress by releasing its inaugural climate strategy in April 2022² and providing further details in a series of Responsible Investment documents in November 2022.³ But PSP’s climate strategy commitments and implementation plans are misleading. Even though PSP is a Crown Corporation in a country that has committed to net-zero emissions by 2050, PSP neglected to establish its own net-zero target, which is critical to pursuing a Paris-aligned investment strategy and providing accountability to beneficiaries and stakeholders. Just a month after releasing its climate strategy, PSP announced that portfolio company TriSummit Utilities, 50% owned by PSP, was spending over \$1 billion to buy 5,835 km of fossil gas pipelines and a fossil gas storage facility in Alaska.⁴ The TriSummit announcement included no reference to a net-zero commitment or decarbonization,⁵ despite PSP’s commitment to “use our capital and influence to support the transition to global net-zero emissions by 2050.”⁶ The Alaskan gas purchase also stands in contrast to PSP’s own *Green Bond Framework*, which states that “any investment that increases the use of fossil fuels — including exploration, processing and/or transportation — would not be considered a green investment under our Green Bond Pillars” and that “PSP will also ensure selected investments do not increase the use of fossil fuels but are on a pathway to reduce dependency of fossil fuels over time.”⁷

PSP’s *Climate Strategy Roadmap* also included a short-term emissions intensity reduction target significantly weaker than its Canadian peers and failed to define the role that carbon removal and offsets will play in the strategy. PSP developed an in-house “Green Asset Taxonomy” that includes definitions such as “early” and “mature” “transition assets”, “enablers of climate mitigation and adaptation” and “carbon-intensive investments without a transition plan”,⁸ but did not indicate how its own assets are classified under the taxonomy, or how fossil fuel companies can be “transitioned”.⁹ Even if PSP achieves its goal of reducing “holdings in carbon intensive assets that lack transition plans” by 50% by 2026 from a \$7.8 billion baseline in 2021,¹⁰ the pension fund will still hold nearly \$4 billion in risky fossil fuel assets five years from now.

Shift is also concerned about PSP portfolio company Mosaic Forest Management's plan to package the deferred harvesting of 40,000 hectares of old growth forest into "nature-based carbon credits available for sale to companies with net-zero targets."¹¹ PSP has not provided credible evidence that these credits are additional, verifiable and permanent. Their sale could allow carbon-intensive companies which buy them to continue polluting.



SILVER STAR FOR GREENWASHING - ONTARIO TEACHERS' PENSION PLAN

Despite its position as a climate leader among Canadian pension funds, OTPP is the recipient of the Silver Star for greenwashing, due to its dubious statements which overstate the realistic potential for gas distribution pipelines it owns to be repurposed to transport hydrogen and inaccurate claims about its "net-zero" or "carbon-neutral" airports.

OTPP is a significant owner of companies that operate fossil gas pipeline networks in Italy and the United Kingdom (UK). In 2021, OTPP partnered with Macquarie to buy a 69.4% stake in Società Gasdotti Italia S.p.A (SGI), the owner and operator of a 1,700-km fossil gas pipeline network in Italy. OTPP claimed that the Italian gas pipelines will "enable the shift to low- or zero-carbon alternatives like green hydrogen and biomethane to support broad decarbonisation efforts in Italy and Europe."¹² But the claim was based on an incomplete, unpublished feasibility study that would "support SGI's ambitions to decarbonise the delivery of energy to Italian homes and businesses through its gas network."¹³ OTPP has not reported on its investment in SGI or the hydrogen feasibility study in the two years since announcing the acquisition of its stake in the Italian fossil gas pipeline company.

Similarly, OTPP increased its stake in Scotia Gas Networks (SGN), the second largest fossil gas distribution network in the UK, from 25% to 37.5% in 2021.¹⁴ In its 2021 Responsible Investing Report, OTPP says it's "pursuing clean gas at SGN".¹⁵ There is no such thing as clean gas, as gas is a fossil fuel that releases carbon dioxide and methane into the atmosphere throughout its lifecycle. OTPP claimed that "SGN is pioneering the repurposing of existing gas networks into renewable hydrogen energy systems" and that "natural gas networks will play an important role in the transition of the energy sector to a net zero future."¹⁶ OTPP highlights how SGN is engaged in pilot projects to assess the repurposing of its gas transmission pipeline network for hydrogen¹⁷ and explore green hydrogen as a source for home heating and cooking as part of the UK gas industry's "Gas Goes Green" effort.¹⁸ SGN lists "deliver[ing] a safe and efficient service by acting safely [and] *keeping the gas flowing*" (emphasis added) as the company's primary "strategic pillar".¹⁹ This is a clear contradiction of the need to immediately and rapidly reduce fossil fuel use to avoid catastrophic global warming. Furthermore, a corroded SGN gas pipeline caused an explosion in Ayr, Scotland in October 2021 that destroyed four houses and seriously injured four people, including two children.²⁰ Less than a year later, an explosion on an SGN pipeline in south London killed a young girl, injured three others, damaged dozens of homes and forced 500 people from their homes for a week after SGN ignored repeated calls from residents reporting the smell of gas in the neighbourhood.²¹ London's Metropolitan Police's Specialist Crime Command launched a criminal investigation into the SGN explosion in August 2022.²²

Fossil fuels are dangerous, and the deadly explosions on SGN pipelines belie the company's safety claims. There is clear evidence that the supposed gas-to-hydrogen conversion is technically challenging, ill-suited, dangerous and energy-intensive for the purposes SGI and SGN are considering and that it delays the

much-needed shift to the cheaper option of electrification.²³ In October 2021, the UK government released a green building strategy that firmly favours electric heat pumps, while a decision on the widespread use of hydrogen heating systems was delayed until 2026.²⁴ Bloomberg New Energy Finance founder Michael Liebrich concluded in July 2021 that using hydrogen in home heating is uncompetitive and delays the shift to heat pumps. Oil and gas companies know it, but are pursuing hydrogen nonetheless.²⁵ The promotion by OTPP-owned companies of plans to repurpose their gas pipeline networks in Italy and the UK appear to be a greenwashed attempt to prolong the use of fossil gas infrastructure.

OTPP is also deserving of the Silver Star for greenwashing because of its claims that its “carbon-neutral” airport assets are “creating a runway for a more prosperous and sustainable future.” The airports that OTPP privately owns in Copenhagen, London City, Brussels, Birmingham and Bristol have made efforts to electrify vehicle fleets, improve energy efficiency, install solar panels and develop sustainable aviation fuel.²⁶ But the airports’ “net-zero” and “carbon-neutral” claims ignore the primary source of emissions in the aviation sector—airplanes taking off and landing in OTPP-owned airports. A recent study by *The Guardian* found that UK airports have flown over 40,000 empty “ghost flights” since 2019, including 5,000 completely empty passenger flights and 35,000 commercial flights with fewer than 10% of seats filled. OTPP-owned Birmingham Airport was the worst culprit, with 1,455 ghost flights, while Bristol Airport had the third most empty flights, at 758.²⁷ OTPP’s sustainable airport claims are particularly misleading considering their disregard for local communities opposed to the expansion of these airports. Opponents of OTPP-owned airport expansions have even launched a multinational campaign to stop expansion to protect local ecology, the global climate and public health.²⁸ Opponents of airport expansion in Bristol took the OTPP-owned airport to the UK’s High Court after Bristol Airport pushed through expansion plans despite overwhelming public opposition.²⁹ When Ontario teachers questioned OTPP about these airport expansions at the fund’s 2022 AGM, OTPP’s CEO claimed that expanding Bristol Airport would *decrease* emissions because it would prevent travelers from having to drive to other airports, while the pension fund’s CIO made vague comments about airplanes that will be powered by alternative fuels in the future.³⁰



GOLD STAR FOR GREENWASHING - CPP INVESTMENTS

The Gold Star for greenwashing goes to CPPIB, due to its alarming and ongoing pattern of communications, investment decisions and stewardship approaches that misrepresent the potential for the oil and gas industry to align with stated climate obligations. This includes the obfuscation of its investments in fossil fuels and climate solutions, the actions of its privately-owned companies to greenwash their operations and prolong the use of fossil fuels, and a reliance on false climate solutions like CCUS and offsets. Despite being a Crown corporation and the manager of Canada’s half-trillion dollar national retirement fund, CPPIB does not yet have a credible climate plan that is fully aligned with the Paris Agreement.

In April 2021, CPPIB combined its Energy & Resources and Power & Renewables teams into the Sustainable Energy Group.³¹ Amalgamating its investments in “renewables, conventional energy and innovation” made it impossible to compare CPPIB’s massive fossil fuel holdings to previous years and obfuscated what CPPIB classifies as “green” investments and “transition assets.” Less than a year later, CPPIB claimed to have \$67 billion in “green and transition assets”,³² without disclosing which assets fall into these two classifications. The obscurity raises critical questions about CPPIB’s commitment to increase investments in “green

and transition assets” to \$130 billion by 2030,³³ leaving Canadians to wonder whether our national pension fund is investing in renewable energy and electric vehicles, or fossil gas pipelines and fracked gas producers. This problem is exacerbated by the fact that upon committing to net-zero by 2050, CPPIB refused to establish interim emissions reduction targets, claiming that “we do not expect a linear decline in emissions, especially as we invest to help certain companies and industries transition.”³⁴ This essentially makes it impossible for anyone to hold CPPIB accountable for making progress on its net-zero commitment.

The actions of CPPIB-owned fossil fuel companies suggest that external accountability is sorely needed. For example, Crestone Peak Resources, a Denver-based oil and gas producer that was 95% owned by CPPIB, faced criticism for undertaking fracking operations too close to schools and homes while contributing over US\$600,000 in Colorado’s 2018 state elections to political campaigns and political action committees trying to elect candidates friendly to the oil and gas industry.³⁵ In 2021, Crestone was merged with three other firms to form Civitas Resources, which is 26% owned by CPPIB.³⁶ Civitas is now Colorado’s largest oil and gas producer and the state’s “first carbon neutral energy producer,” a claim that covers only Scope 1 and 2 emissions and relies on offsets.³⁷ Civitas’ activities are even more inconsistent with CPPIB’s net-zero commitment because the company is acquiring new oil and gas producers, increasing production,³⁸ drilling new wells,³⁹ and litigating efforts by some county governments to limit production.⁴⁰

Similarly, another energy company partly owned by CPPIB,⁴¹ Calpine, owns and operates 61 gas plants in the U.S. and Canada and is actively fighting electrification in order to protect its fossil fuel business model.⁴² Calpine has fought the New England Clean Energy Connect Project for years to protect the interests of its gas plant in Maine,⁴³ co-founding and leading a political action committee to mobilize public opinion against the project,⁴⁴ donating \$1.7 million to another political action committee during a referendum to block the transmission project,⁴⁵ and bankrolling questionable studies to undercut the project.⁴⁶ The actions by the CPPIB-backed company to block the transmission project, which would send Quebec hydropower to New York City, led Hydro-Quebec’s CEO to call Calpine’s efforts “putting money in the toilet” in “direct opposition to CPPIB values on ESG issues and its support for the transition toward renewable energy.”⁴⁷

In addition to its companies expanding oil and gas production and delaying the transition away from fossil fuels, CPPIB is also making big investments in false climate solutions like carbon offsets and carbon capture utilization and storage. In October 2021, CPPIB committed US\$20 million to carbon offset projects in South America, claiming the “potential projects” “have the possibility of protecting 20 million hectares” of forests and that the carbon benefits are verifiable, additional and permanent.⁴⁸ The investment is a “prototype for joint ventures between private capital and non-profit organizations to help scale nascent carbon markets,” with CPPIB suggesting it will make further investments in the voluntary carbon market.⁴⁹ The scale, stability and veracity of voluntary carbon markets is dubious,⁵⁰ while the entire concept of offsets could be described as greenwashing, with research showing that offsetting allows polluters to continue polluting, often fails to actually reduce emissions, and exacerbates problems with Indigenous rights, land use, food security and biodiversity.⁵¹ CPPIB’s reliance on offsets to both achieve carbon neutrality in its operations and enable portfolio companies to make net-zero or carbon-neutral claims is greenwashing.

CPPIB is also making big investments in CCUS, particularly through its ownership of Wolf Infrastructure. Wolf owns and operates the Access Pipeline System near Edmonton, which gathers and delivers the diluent needed to allow bitumen to flow through crude oil pipelines. Wolf also owns and operates the

Alberta Carbon Trunk Line (ACTL), a heavily-subsidized CCUS project in which CPPIB invested \$315 million.⁵² Former CPPIB CEO Mark Machin claimed that the ACTL, operating at full capacity, will remove about 15 million tonnes of carbon from the atmosphere every year.⁵³ While CPPIB highlights this as an example of its commitment to climate action, it omitted details of the other \$2.3 billion of its investment in Wolf, which includes the transportation of bitumen and diluent and two major oil storage facilities. Furthermore, the carbon supplied by the ACTL is delivered to an enhanced oil recovery project in Clive, Alberta, where it is used to increase oil production.⁵⁴ Wolf is also planning controversial CCUS infrastructure in the U.S. Midwest.⁵⁵ While CCUS may prove useful to decarbonize some hard-to-abate sectors such as cement, chemicals and steel, it is high-risk, ineffective greenwashing when it comes to the oil and gas sector. CCUS is expensive and ineffective at reducing emissions and does not capture Scope 3 emissions or protect fossil fuel producers from falling demand for oil and gas, while most of the CCUS in operation is used for enhanced oil recovery, thereby increasing emissions.⁵⁶

CPPIB's approach to and investments in offsets and CCUS are problematic for a half-trillion dollar investment manager with a fiduciary duty to invest in the best long-term interests of Canadians. In December 2021, CPPIB released a framework for decarbonizing high-emitting sectors that includes a section on oil and gas.⁵⁷ It takes a position that the "ingenuity", "technological know-how,"⁵⁸ and "innovation and capacity" of the oil and gas sector can somehow decarbonize the industry.⁵⁹ CPPIB's then-Head of Sustainable Investing and now Chief Sustainability Officer even went so far as to say in September 2022 that "Big Oil (could) become Big Energy, but also no-carbon oil over time."⁶⁰ The notion of "no-carbon oil" is absurd. Unlike other emissions-intensive industries, oil and gas companies do not have a credible, profitable pathway to decarbonization other than phase-out.

CPPIB's mandate, to invest the CPP funds to achieve a maximum rate of return without undue risk of loss, does not involve assuming extraordinary climate-related financial risks to prop up an industry facing structural decline. Fossil fuel companies are desperate to preserve their business model and prolong the use of oil and gas, but our pension capital cannot be their lifeboat. Canadians have come to expect greenwashing from the oil and gas industry. They shouldn't expect the same from CPPIB.

ENDNOTES - GREENWASHING AWARDS

- 1 Merriam-Webster. (2022, September). *We Added 370 New Words to the Dictionary for September 2022*. www.merriam-webster.com/words-at-play/new-words-in-the-dictionary.
- 2 PSP Investments. (2022, April 21). *PSP Investments launches inaugural Climate Strategy with targets to guide climate action and emissions reduction*. [Press release]. www.investpsp.com/en/news/psp-investments-launches-inaugural-climate-strategy-with-targets-to-guide-climate-action-and-emissions-reduction/.
- 3 PSP Investments. (2022, November 10). *2022 Responsible Investment Report*. www.investpsp.com/media/filer_public/03-our-performance/03-ri-report/pdf/2022-RI-report.pdf.
- 4 The Canadian Press. (2022, May 26). *AltaGas selling Alaskan utilities business to TriSummit Utilities for \$1.025 billion*. Toronto Star. www.thestar.com/business/2022/05/26/altagas-selling-alaskan-utilities-business-to-trisummit-utilities-for-1025-billion.html.
- 5 TriSummit Utilities. (2022, 26 May). *TriSummit to Acquire Utilities for Approximately C\$1 Billion (US\$800 Million)*. [Press release]. trisummit.ca/newsroom/news-2022/255-riummittocquireutilitiesinlaskaforapproximately20220526073000.
- 6 PSP Investments. (2022). *Climate Strategy Roadmap - 2022*. P.2. www.investpsp.com/media/filer_public/02-we-are-psp/02-investing-responsibly/climate-strategy-2022/Climate-Strategy-Roadmap.pdf.
- 7 PSP Investments. (2022). *Green Bond Framework*. P.8. www.investpsp.com/media/filer_public/11-we-are-debt-issuer/pdf/PSP-Green-Bond-Framework-EN.pdf.
- 8 PSP Investments. (2022). *PSP's Green Asset Taxonomy*. www.investpsp.com/media/filer_public/02-we-are-psp/02-investing-responsibly/climate-strategy-2022/Green-Asset-Taxonomy.pdf; PSP Investments. (2022, November). *PSP Investments Green Asset Taxonomy: Advancing Climate-Aligned Portfolio Management*. www.investpsp.com/media/filer_public/03-our-performance/03-ri-report/pdf/Green-Asset-Taxonomy-Whitepaper.pdf.
- 9 PSP Investments. (2022, April). *Climate Strategy Roadmap*. P. 3, 5-7, www.investpsp.com/media/filer_public/02-we-are-psp/02-investing-responsibly/climate-strategy-2022/Climate-Strategy-Roadmap.pdf; PSP Investments. (2022, November). *PSP Investments Green Asset Taxonomy: Advancing Climate-Aligned Portfolio Management*. www.investpsp.com/media/filer_public/03-our-performance/03-ri-report/pdf/Green-Asset-Taxonomy-Whitepaper.pdf; Public Sector Pension Investment Board. (2022, November). *Investing for a better tomorrow: 2022 Responsible Investment Report*. www.investpsp.com/media/filer_public/03-our-performance/03-ri-report/pdf/2022-RI-report.pdf.
- 10 PSP Investments. (2022, April 21). *PSP Investments launches inaugural Climate Strategy with targets to guide climate action and emissions reduction*. [Press release]. www.investpsp.com/en/news/psp-investments-launches-inaugural-climate-strategy-with-targets-to-guide-climate-action-and-emissions-reduction/.
- 11 Public Sector Pension Investment Board. (2022, June). *Investing for a Better Tomorrow - 2022 Annual Report*. P. 31. www.investpsp.com/media/filer_public/03-our-performance/02-annual-report-2022/pdf/2022-annual-report.pdf
- 12 Ontario Teachers' Pension Plan. (2020, December 24). *Macquarie Agrees to Sale of Societa Gasdotti Italia to Ontario Teachers' Pension Plan*. [Press release]. www.otpp.com/news/article/a/macquarie-agrees-to-sale-of-societa-gasdotti-italia-to-ontario-teachers-pension-plan.
- 13 DNV Oil and gas. (2020, October 8). *DNV GL leads hydrogen readiness study for Italian gas network*. [Press release]. www.dnv.com/news/dnv-gl-leads-hydrogen-readiness-study-for-italian-gas-network-186395.
- 14 Ontario Teachers' Pension Plan. (2021, 2 August). *Consortium Including Ontario Teachers' Pension Plan Board to Acquire 50% Stake in SGN*. [Press release]. www.otpp.com/en-ca/about-us/news-and-insights/2021/consortium-including-ontario-teachers-pension-plan-board-agrees-to-acquire-50-stake-in-sgn/.
- 15 Ontario Teachers' Pension Plan. (2021, October). *Annual Responsible Investing and Climate Change Report: Shaping a better future*. P.12. www.otpp.com/documents/10179/1203138/Annual+Responsible+Investing+and+Climate+Change+Report/5fb54cb5-5fcc-4ab4-846c-be1bd6665a04
- 16 Ontario Teachers' Pension Plan. (2021, August 2). *Consortium Including Ontario Teachers' Pension Plan Board to Acquire 50% Stake in SGN*. [Press release]. www.otpp.com/en-ca/about-us/news-and-insights/2021/consortium-including-ontario-teachers-pension-plan-board-agrees-to-acquire-50-stake-in-sgn/.
- 17 Ontario Teachers' Pension Plan. (2021, October). *Annual Responsible Investing and Climate Change Report: Shaping a better future*. www.otpp.com/documents/10179/1203138/Annual+Responsible+Investing+and+Climate+Change+Report/5fb54cb5-5fcc-4ab4-846c-be1bd6665a04; Ellis, D. (2022, April 9). *SGN secures £29.9mn funding for hydrogen transmission*. Energy Digital. energydigital.com/renewable-energy/sgn-secures-29-9mn-funding-for-hydrogen-transmission; Bergenson, A. (2022, April 27). *Cadent, SGN and National Grid Gas Transmission partner for Capital Hydrogen program*. Hydrogen Fuel News. www.hydrogenfuelnews.com/capital-hydrogen-program/8552407/; Renewables.biz. (2022, June 14). *RWE, SGN to deliver wind-to-hydrogen in Scotland*. renewables.biz/78426/rwe-sgn-to-deliver-wind-to-hydrogen-in-scotland/; Reve Staff. (2022, June 14). *RWE and SGN announce green hydrogen partnership for*

- domestic heat in Scotland. Reve. www.evwind.es/2022/06/14/rwe-and-sgn-announce-green-hydrogen-partnership-for-domestic-heat-in-scotland/86504; OGV Magazine. (2022, September 26). *DNV lands 3-year contract in UK for safe use and conversion of pipelines to transport 100% hydrogen*. OGV Energy. www.ogv.energy/news-item/dnv-lands-3-year-contract-in-uk-for-safe-use-and-conversion-of-pipelines-to-transport-100-hydrogen.
- 18 SGN. (2021). *H100 Fife: A world-first green hydrogen-to-homes heating network on the Fife coast*. www.sgn.co.uk/H100Fife.
 - 19 SGN. (2022). *Working together to create tomorrow's clean energy network: Annual Report & Financial Statements 2022*. P. 61. www.sgn.co.uk/sites/default/files/media-entities/documents/2022-07/SGN-Annual-Report-2022.pdf.
 - 20 Thom, R. (2021, October 21). *Cause of Ayr explosion unknown as army veteran says blast reminded him of Basra*. Daily Record. www.dailyrecord.co.uk/ayrshire/cause-ayr-explosion-unknown-army-25266143; Hunter, K. (2022, September 14). *Corroded gas pipe led to Ayrshire house explosion, says report*. BBC Scotland. www.bbc.com/news/uk-scotland-glasgow-west-62901260.
 - 21 Speare-Cole, R. (2022, August 9). *Thornton Heath: Residents want answers after girl killed in gas explosion*. Evening Standard. www.standard.co.uk/news/london/thornton-heath-explosion-fire-residents-want-answers-girl-killed-gas-leak-b1017368.html; Inside Croydon. (2022, August 16). *SGN 'donates' £0.5m to Merton to pay for displaced residents*. insidecroydon.com/2022/08/16/sgn-donates-0-5m-to-merton-to-pay-for-displaced-residents/.
 - 22 Parnaby, L. (2022, August 16). *Residents evacuated after fatal gas blast to return home from Wednesday*. Yahoo! News. uk.news.yahoo.com/residents-evacuated-fatal-gas-blast-154352426.html.
 - 23 Feinstein, L. (2022, May 24). *Hydrogen's Dead End: Home Heating*. Sightline Institute. www.sightline.org/2022/05/24/hydrogens-dead-end-home-heating/; Global Witness. (2022, September 1). *The Problem with hydrogen*. www.globalwitness.org/en/blog/problem-hydrogen/; Taylor, G. (2022, August 11). *Global Push for Hydrogen Sidesteps Knowledge Gaps on Climate Impacts*. The Energy Mix. www.theenergymix.com/2022/08/11/global-push-for-hydrogen-sidesteps-knowledge-gaps-on-climate-impacts/; Global Witness. (2022, September). *Burning the Public. The hydrogen heating pipe dream*. www.globalwitness.org/en/campaigns/fossil-gas/burning-public-hydrogen-heating-pipe-dream/.
 - 24 John Gabbatiss. (2021, October 20). *In-depth Q&A: How will the UK's 'heat and buildings strategy' help achieve net-zero?* CarbonBrief. www.carbonbrief.org/in-depth-qa-how-will-the-uks-heat-and-buildings-strategy-help-achieve-net-zero.
 - 25 The Energy Mix. (2021, July 13). *Fossils Tout 'Uncompetitive' Hydrogen Cars to Delay Decarbonization, Liebrich Says*. www.theenergymix.com/2021/07/13/fossils-tout-uncompetitive-hydrogen-cars-to-delay-decarbonization-liebreich-says/.
 - 26 Ontario Teachers' Pension Plan. (2022). *European Airports: Creating runway for a more prosperous and sustainable future*. www.otpp.com/en-ca/about-us/our-story/investing-to-make-a-mark/european-airports/.
 - 27 Carrington, D. and Duncan, P. (2022, September 28). *Revealed: 5,000 empty 'ghost flights' in UK since 2019, data shows*. The Guardian. www.theguardian.com/environment/2022/sep/28/revealed-5000-completely-empty-ghost-flights-in-uk-since-2019-data-shows.
 - 28 Stop OTPP Funding Airport Expansion. (2022, August 2). *Dear teachers of Ontario, we are SOFAX*. Youtube. www.youtube.com/watch?v=W1kclp4b6uY.
 - 29 BBC West. (2022, March 16). *Bristol Airport expansion decision to go to High Court*. BBC News. www.bbc.com/news/uk-england-bristol-60748631.
 - 30 Ontario Teachers' Pension Plan. (2022, April 14). *Annual General Meeting Live Q&A*. www.otpp.com/content/dam/otpp/video/transcript/OTPP%20QA%20TRANSCRIPT%20FINAL%20ENG.pdf.
 - 31 CPP Investments. (2021, April 6). *CPP Investments creates new Sustainable Energy Group*. [Press release.] www.cppinvestments.com/public-media/headlines/2021/cpp-investments-creates-new-sustainable-energy-group.
 - 32 CPP Investments. (2022, February 10). *CPP Investments Announces Commitment to Net Zero by 2050*. [Press release.] www.cppinvestments.com/public-media/headlines/2022/cpp-investments-announces-commitment-to-net-zero-by-2050.
 - 33 CPP Investments. (2022, February 10). *CPP Investments Announces Commitment to Net Zero by 2050*. [Press release.] www.cppinvestments.com/public-media/headlines/2022/cpp-investments-announces-commitment-to-net-zero-by-2050.
 - 34 CPP Investments. (2022, February). *Investing in the path to net zero*. cdn2.cppinvestments.com/wp-content/uploads/2022/02/Investing-in-the-path-to-net-zero-10Feb2022-Final-EN.pdf.
 - 35 Milstead, D. and Curry, B. (2020, September 28). *CPPIB's fracking operation in U.S. raises questions*. The Globe and Mail. www.theglobeandmail.com/business/article-cppibs-ownership-of-crestone-raises-questions.
 - 36 Civitas. (2021, June 7). *Civitas Adds Premium Assets in DJ Basin With All-Stock Acquisition of Crestone Peak Resources*. [Press release.] www.globenewswire.com/news-release/2021/06/07/2242699/0/en/Civitas-Adds-Premium-Assets-in-DJ-Basin-With-All-Stock-Acquisition-of-Crestone-Peak-Resources.html.
 - 37 Civitas. (2022). *Collaborating with our Communities, Protecting Colorado's Environment*. Accessed October 11, 2022 at civitasresources.com/sustainability/.
 - 38 Civitas. (2022, February 1). *Civitas announces DJ Basin acquisition and concurrent CEO transition*. Businesswire. [Press release].

- www.businesswire.com/news/home/20220201005529/en/Civitas-Announces-DJ-Basin-Acquisition-and-Concurrent-CEO-Transition.
- 39 Veazey, M. (2022, May 9). *Civitas Builds Natural Gas, Oil Drilling Inventory in Colorado DJ*. Natural Gas Intelligence. www.naturalgasintel.com/civitas-builds-natural-gas-oil-drilling-inventory-in-colorados-dj/.
- 40 Avery, G. (2022, September 19). *Colorado high court to hear arguments in case affecting oil rights across state*. Denver Business Journal. www.bizjournals.com/denver/news/2022/09/19/boulder-county-crestone-peak-oil-rights-lawsuit.html; Weiser, S. (2022, September 19). *Colorado Supreme Court considering the legal status of dormant oil and gas well leases*. The Gazette. gazette.com/news/local/colorado-supreme-court-considering-the-legal-status-of-dormant-oil-and-gas-well-leases/article_3fcd15fa-edcd-55c3-bac0-02c1e02f32bb.html; Weiser, S. (2022, September 22). *Oil and gas leases throughout Colorado could be impacted by court ruling*. Denver Gazette. denvergazette.com/news/business/oil-and-gas-leases-throughout-colorado-could-be-impacted-by-court-ruling/article_3d91a720-3a9f-11ed-a8ae-736f038b880a.html.
- 41 Canada Pension Plan Investment Board. (2017, August 18). *Canada Pension Plan Investment Board Signs Agreement to Acquire Stake in Calpine Corporation*. [Press release]. www.cppinvestments.com/public-media/headlines/2017/cppib-calpine-18-08-2017.
- 42 Calpine. (2022). *Our Fleet*. Accessed October 11, 2022 at www.calpine.com/Operations/Power-Operations/Our-Fleet.
- 43 Van Praet, N. (2021, November 2). *Maine voters reject hydropower line from Canada to New England*. The Globe and Mail. www.theglobeandmail.com/business/article-maine-voters-poised-to-reject-hydropower-line-from-canada-to-new/.
- 44 Bredderman, W. (2022, March 9). *A Company Backed by this Mega Oligarch Helped Kill Clean Power in Maine*. The Daily Beast. www.thedailybeast.com/len-blavatnik-and-his-access-industries-are-shareholders-of-calpine-which-helped-kill-clean-energy-in-maine.
- 45 Howland, E. (2021, November 3). *Maine voters reject Avangrid's \$1B transmission project*. Utility Dive. www.utilitydive.com/news/avangrid-nextera-necec-transmission-maine-ballot/608877/.
- 46 O'Brien, A. (2018, May 31). *Legislators Battle with LePage Over CMP's Proposed Transmission Line*. Natural Resources Council of Maine. www.nrcm.org/news/legislators-battle-lepage-cmps-proposed-transmission-line/.
- 47 Van Praet, N. (2021, May 17). *Hydro-Quebec CEO says company will fight back against bullying by competitors opposing its U.S. transmission line*. The Globe and Mail. www.theglobeandmail.com/business/article-hydro-quebec-ceo-says-company-will-fight-back-against-bullying-by/.
- 48 CPP Investments. (2021, October 5). *CPP Investments and Conservation International to invest in nature-based climate solutions*. [Press release]. www.cppinvestments.com/public-media/headlines/2021/cpp-investments-and-conservation-international-to-invest-in-nature-based-climate-solutions.
- 49 CPP Investments. (March 2022). *Investing in the Potential of Carbon Credits*. CPP Investments Insights Institute. www.cppinvestments.com/wp-content/uploads/2022/03/Investing-in-the-Potential-of-Carbon-Credits_EN-Final.pdf.
- 50 See Elgin, B. (2022, March 17). *This Timber Company Sold Millions of Dollars of Useless Carbon Offsets*. Bloomberg. www.bloomberg.com/news/articles/2022-03-17/timber-ceo-wants-to-reform-flawed-carbon-offset-market; Shankleman, J. and White, N. (2022, March 16). *Carney's Bid to Grow Carbon Market Rejiggered Amid Controversy*. Bloomberg. www.bloomberg.com/news/articles/2022-03-16/carney-s-bid-to-boost-carbon-market-scaled-back-amid-controversy.
- 51 See Stapczynski, S., Rathi, A. and Marawanyika, G. (2021, August 11). *How to Sell 'Carbon Neutral' Fossil Fuel That Doesn't Exist*. Bloomberg. www.bloomberg.com/news/features/2021-08-11/the-fictitious-world-of-carbon-neutral-fossil-fuel; The Energy Mix Staff. (2021, October 7). *Carbon Offsets Do Little More Than Exploit the Global South: Saño*. The Energy Mix. www.theenergymix.com/2021/10/07/carbon-offsets-do-little-more-than-exploit-the-global-south-sano/; The Energy Mix Staff. (2022, January 26). *Explainer: New Video Traces the Promise, Perils of Carbon Offsets*. The Energy Mix. www.theenergymix.com/2022/01/26/explainer-new-video-traces-the-promise-perils-of-carbon-offsets/; Monbiot, G. (2022, January 26). *Carbon offsetting is not warding off environmental collapse - it's accelerating it*. The Guardian. www.theguardian.com/commentisfree/2022/jan/26/carbon-offsetting-environmental-collapse-carbon-land-grab.
- 52 Williams, C. (2020, September). *'Troubling Incrementalism': Is the Canadian Pension Plan Fund Doing Enough to Advance the Transition to a Low-Carbon Economy?* Canada Climate Law Initiative. P. 27-29. law-ccli-2019.sites.olt.ubc.ca/files/2020/09/CCLI_Troubling_Incrementalism_Cynthia_Williams_Sept2020.pdf.
- 53 Machin, M. (2020, June 11). *Testimony to the House of Commons Standing Committee on Finance*. www.ourcommons.ca/DocumentViewer/en/43-1/FINA/meeting-36/evidence.
- 54 Williams, C. (2020, September). *'Troubling Incrementalism': Is the Canadian Pension Plan Fund Doing Enough to Advance the Transition to a Low-Carbon Economy?* Canada Climate Law Initiative. P. 27-29. law-ccli-2019.sites.olt.ubc.ca/files/2020/09/CCLI_Troubling_Incrementalism_Cynthia_Williams_Sept2020.pdf.
- 55 See Parkinson, N. (2022, January 12). *ADM signs CO2 pipeline deal for Iowa*. GasWorld. www.gasworld.com/adm-signs-co2-pipeline-deal-for-iowa/2022489.article; Bentein, J. (2022, January 13). *Interview: Wolf Midstream executive says deal with ADM first step in CCS network*. S&P Global. www.spglobal.com/platts/en/market-insights/latest-news/agriculture/011322-interview-wolf-midstream-executive-says-deal-with-adm-first-step-in-ccs-network; Wolf Midstream. (2022, February 23). *Wolf Midstream, Whitecap Resources and First Nations Partners Submit Proposal to Transform the Future of Carbon Reduction*. [Press release]. www.newswire.ca/news-

[releases/wolf-midstream-whitecap-resources-and-first-nations-partners-submit-proposal-to-transform-the-future-of-carbon-reduction-841478369.html](#); Chart Industries, Inc. and Wolf Carbon Solutions. (2022, July 29). *Wolf Carbon Solutions and Chart Industries sign MOU to collaborate on CCUS Projects along Mt. Simon Hub System*. [Press release]. www.globenewswire.com/news-release/2022/07/29/2488599/9318/en/Wolf-Carbon-Solutions-and-Chart-Industries-sign-MOU-to-collaborate-on-Carbon-Capture-Utilization-and-Storage-CCUS-Projects-along-Mt-Simon-Hub-System.html.

- 56 Drugmand, D. and Muffett, C. (2021, April 22). *Confronting the myth of carbon-free fossil fuels: Why carbon capture is not a climate solution*. EWG. www.ewg.org/news-insights/news/confronting-myth-carbon-free-fossil-fuels-why-carbon-capture-not-climate; Harvey, C. and House, K. (2022, August 16). *Every Dollar Spent on This Climate Technology Is a Waste*. The New York Times. www.nytimes.com/2022/08/16/opinion/climate-inflation-reduction-act.html; Allen, T. (2022, July 22). *A magical CCUS unicorn will not save the oil industry*. Carbon Tracker Initiative. carbontracker.org/a-magical-ccus-unicorn-will-not-save-the-oil-industry; Environmental Defence. (2022, March). *Buyer Beware: Fossil Fuels Subsidies and Carbon Capture Fairy Tales in Canada*. environmentaldefence.ca/wp-content/uploads/2022/03/Buyer-Beware-FFS-2022.pdf; Robertson, B. and Mousavian, M. (2022, September 1). *The carbon capture crux: Lessons learned*. Institute for Energy Economics and Financial Analysis. ieefa.org/resources/carbon-capture-crux-lessons-learned.
- 57 CPP Investments. (2021, December). *Investing to enable an economy-wide evolution to a low-carbon future*. www.cppinvestments.com/wp-content/uploads/2021/12/investing-to-enable-an-economy-wide-evolution-final-en.pdf.
- 58 Ballingall, A. (2021, October 18). *Canada won't stop Crown corporations from investing in fossil fuels any time soon. Here's why*. Toronto Star. www.thestar.com/politics/federal/2021/10/18/canada-wont-stop-crown-corporations-from-investing-in-fossil-fuels-any-time-soon-heres-why.html.
- 59 Labbé, S. (2021, August 12). *Canada's biggest public pensions still heavily invested in fossil fuels: study*. Pique News Magazine. www.piquenewsmagazine.com/must-reads/canadas-biggest-public-pensions-still-heavily-invested-in-fossil-fuels-study-4214247.
- 60 Jones, J. (2022, September 28). *CPPIB says it's using investments to push companies to decarbonize*. The Globe and Mail. www.theglobeandmail.com/business/article-canada-pension-plan-investing-low-carbon-energy/.

Methodology and Scoring Rubric

This analysis is based on publicly available information collected over the course of 2022 from the public websites, annual reports, ESG/sustainable/responsible investing reports, climate plans and strategies, regulatory filings, press releases and other publications of pension funds, as well as news articles, briefing notes and reports from NGOs, academics and civil society organizations. All sources are listed in the report’s references and endnotes, and include up to date information to the best of the authors’ knowledge.

To assign climate scores to each criteria, Shift assessed publicly available information against a scoring rubric. We acknowledge that given the nature of qualitative information and inconsistency across disclosure, these scores are necessarily subjective.

SCORING RUBRIC

PARIS-ALIGNED TARGET	
Grade	Criteria
A	<p>The pension manager:</p> <ul style="list-style-type: none"> has made a public commitment to a Paris-aligned target (net-zero by 2050 or sooner), and has set interim targets, defined net-zero, accounted for scope 3 emissions, planned to achieve real world emission reductions, and placed a limit on the role of offsets, and is part of a credible and accountable net-zero body such as the Net Zero Asset Owner Alliance (NZAOA) or the Paris-Aligned Investment Initiative (PAII).
B	<p>Net-zero by 2050 target, including most of the following:</p> <ul style="list-style-type: none"> interim targets definition of net-zero plan to account for scope 3 emissions plan for achieving real world reductions while bringing portfolio to net-zero limits on the role of offsets membership in a credible and accountable net-zero body such as the Net Zero Asset Owner Alliance (NZAOA) or the Paris-Aligned Investment Initiative (PAII).
C	<p>Net-zero by 2050 target, but without all or most of the following:</p> <ul style="list-style-type: none"> interim targets definition of net-zero plan to account for scope 3 emissions plan for achieving real world reductions while bringing portfolio to net-zero limits on the role of offsets.
D	No target, but an indication that a target is forthcoming.
F	No target, and no indication that a target is forthcoming.

INTERIM TARGETS

Grade	Criteria
A	<p>GHG emissions: 2025 and 2030 Paris-aligned targets covering 100% of the portfolio and scopes 1, 2, and 3. The presence/absence of absolute targets and intensity-based targets was considered.</p> <p>Climate solutions: 2025 and 2030 targets for increased investments in climate solutions.</p> <p>Engagement or transition targets: 2025 and 2030 targets for percent of portfolio covered by a credible net-zero pathway.</p> <p><i>Other additional climate-related targets were also considered in assigning this score, as was the ambition of the targets.</i></p>
B	<p>GHG emissions: 2025 and 2030 targets to reduce scope 1 and 2 emissions of the total portfolio. Plan to incorporate scope 3 into targets. The presence/absence of absolute targets and intensity-based targets was considered.</p> <p>Climate solutions: At least one near-term target (by dollar or percentage AUM) for increased investments in climate solutions.</p> <p>Engagement or transition targets: At least one near-term target for percent of portfolio covered by a credible net-zero plan.</p> <p><i>Other additional climate-related targets were also considered in assigning this score, as was the ambition of the targets.</i></p>
C	<p>Short and/or mid-term targets exist but are incomplete, e.g.</p> <ul style="list-style-type: none">• GHG target does not cover the total portfolio• targets in one area (e.g. emissions) but not others (e.g. climate solutions investments)
D	<p>No short and mid-term targets but reasonable indication that they will be announced soon.</p>
F	<p>No short and mid-term targets and no definite indication that targets are forthcoming.</p>

CLIMATE URGENCY

Grade	Criteria
A	<p>The pension manager:</p> <ul style="list-style-type: none">• acknowledges the climate crisis poses risks to and opportunities for its portfolio;• acknowledges that it has a role in addressing the climate crisis;• acknowledges the urgency, emergency and existential nature of the climate crisis;• acknowledges that investors have agency to influence the trajectory of the climate crisis;• articulates an ambition, determination and responsibility to centre climate in its investment strategy.
B	<p>The pension manager:</p> <ul style="list-style-type: none">• acknowledges the climate crisis poses risks to and opportunities for its portfolio;• acknowledges that it has a role in addressing the climate crisis;• acknowledges the urgency, emergency, and existential nature of the climate crisis;• acknowledges that investors have agency to influence the trajectory of the climate crisis.
C	<p>The pension manager:</p> <ul style="list-style-type: none">• acknowledges the climate crisis poses risks to and opportunities for its portfolio, and• acknowledges that it has a role in addressing the climate crisis.
D	<p>The pension manager:</p> <ul style="list-style-type: none">• acknowledges the climate crisis poses risks to and opportunities for its portfolio• does not acknowledge its own role in addressing the climate crisis.
F	<ul style="list-style-type: none">• no acknowledgement of risks to and opportunities for the portfolio.• no acknowledgement of the role of finance in addressing the climate crisis.






CLIMATE ENGAGEMENT

Grade	Criteria
A-F	<p>A score between A-F was assigned based on whether or not the pension manager had the following elements in place, and the strength and specificity of these elements:</p> <ul style="list-style-type: none">• Publicly stated expectations for owned companies to have credible net-zero alignment strategies• Clear climate-related expectations in proxy voting guidelines, including the expectation for credible net-zero strategies• Public, specific and Paris-aligned goals for climate-related engagements• Disclosure of targets and metrics to determine success of climate engagements (e.g. % of owned companies that have credible net-zero transition plans)• A timebound and escalatory framework, up to and including divestment, to apply to climate engagements.

CLIMATE INTEGRATION

Grade	Criteria
A-F	<p>A score between A-F was assigned based on public disclosure of these indicators:</p> <ul style="list-style-type: none">• Disclosure of exposure to high-carbon assets, particularly fossil fuels• Quality and disclosure of scenario analysis• Extent of carbon footprinting (portfolio coverage and scopes)• Board level climate expertise (raised score)• Board level fossil fuel entanglement (lowered score)• Detail and currency of climate plan• Compensation structure linked to climate targets• Membership in a credible and accountable net-zero body such as the Net Zero Asset Owner Alliance (NZAOA) or the Paris-Aligned Investment Initiative (PAII).

FOSSIL FUEL EXCLUSIONS

Grade	Criteria
 A	Exclusion of all investment in coal, oil and gas.
 B	Exclusion of at least two of coal, oil and gas.
 C	Exclusion of at least one of coal, oil, gas.
 D	Limited exclusions (e.g. weak thermal coal exclusion).
 F	No fossil fuel exclusions.

References

The References section lists the pension manager publications reviewed to develop scores for each fund.

Canadian Pension Managers

AIMCo

Reports

- [2021 Annual Report](#) (June 2022)
- [2020 Annual Report](#) (June 2021)
- [2021 Responsible Investment Report](#) (Nov 2021)
- [TCFD 2022 Report](#) (December 2022)
- [TCFD 2021 Report](#) (Nov 2021)
- [Stewardship Report](#) (October 2022)

Documents

- [AIMCo Strategic Response to Climate Change](#) (approved April 30, 2020)
- [Responsible Investment Policy](#) (effective January 29, 2020)
- [Proxy Voting Guidelines](#) (January 2022)
- [Responsible Investment Engagement Guidelines](#) (April 2021)
- [AIMCo Realty Green Financing Framework](#) (September 2021)
- [Exclusion Guidelines](#) (February 2021)
- [Our Strategy - 2022 and Beyond](#) (accessed July 2022)

Webpages and press releases

- [Governance](#) (webpage) (accessed July 2022)
- [Responsible Investing Highlights](#) (webpage) (accessed July 2022)
- [Responsible Investing](#) (webpage) (accessed July 2022)
- [Q4 & Year-End 2021 Investment Performance](#) (April 2022)

BCI

Reports

- [2021-2022 Corporate Annual Report](#) (2022)
- [2021 ESG Annual Report](#) (2022)
- [2021 ESG Annual Report. Supplementary Case Studies](#) (2022)
- [2020 ESG Annual Report](#) (2021)

Documents

- [2022 Climate Action Plan](#) (November 2022)
- [Forward Together. F2023-2025 Three-year Business Plan](#) (2022)
- [BCI's Climate Action Plan and Approach to the TCFD Recommendations](#) (2018)
- [Proxy Voting Guidelines. Tenth Edition](#) (2021)
- [ESG Governance Policy](#) (2020)
- [ESG Engagement in Public Markets. Our Priorities, Objectives & Processes](#) (2019)
- [ESG Strategy](#) (2020)
- [Investment Inventory](#) (to March 31, 2022)
- [Investment Inventory](#) (to March 31, 2021)

Webpages and press releases

- [BCI Managing Risk - Culture & Framework](#) (webpage) (accessed July 2022)
- [BCI Climate Action Plan & Approach to TCFD Recommendations](#) (webpage) (accessed July 2022)
- [Board Members](#) (webpage) (accessed July 2022)
- [Proxy Voting](#) (webpage) (accessed July 2022)
- [Policy Advocacy](#) (webpage) (accessed July 2022)

- [Our Net Zero Commitment](#) (Quadreal webpage) (accessed November 14, 2022)
- Press release - [BCI Releases 2021 ESG Annual Report](#) (August 3, 2022)
- Press release - [British Columbia Investment Management Corporation Sets Climate-Related Targets for Public Markets](#) (Feb 19, 2021)
- QuadReal Press release - [Quadreal Targeting Net Zero For Entire Portfolio By 2050](#) (October 17, 2022)

CDPQ

Reports

- [2021 Annual Report](#) (2022)
- [2021 Annual Report Additional Information](#) (2022)
- [2021 Sustainable Investing Report](#) (2022)
- [Highlights - 2021 Sustainable Investing Report](#) (2022)

Documents

- [Climate Strategy](#) (2021)
- [Policy - Sustainable Investing](#) (October 2021)
- [Policy Governing the Exercise of Voting Rights of Public Companies](#) (October 2020)
- [Profils de compétence et d'expérience pour la nomination des membres du conseil d'administration de la Caisse de dépôt et placement du Québec](#) (August 12, 2022)
- [Mandate of the Investment and Risk Committee](#) (February 22, 2022)
- [Green Bond Framework](#) (April 2021)

Webpages and press releases

- [Climate Innovation Fund](#) (webpage) (accessed July 2022)
- [Executive Committee](#) (webpage) (accessed July 2022)
- [Board of Directors](#) (webpage) (accessed July 2022)
- [Sustainable Investing - Governance](#) (webpage) (accessed July 2022)
- Press release - [CDPQ posts -7.9% six-month return and 6.1% five-year return, outperforming its benchmark portfolio over all periods](#) (August 17, 2022)
- Press release - [CDPQ posts a 13.5% return in 2021, 8.9% over five years](#) (February 24, 2022)

CPPIB

Reports

- [Summary Report - 2022 Report on Sustainable Investing](#) (2022)
- [2022 Report on Sustainable Investing](#) (2022)
- [2021 Report on Sustainable Investing](#) (2021)
- [2020 Report on Sustainable Investing](#) (2020)
- [Annual Report 2022](#) (May 2022, for fiscal year ended March 31, 2022)
- [Reporting in accordance with the recommendations from the Task Force on Climate-related Financial Disclosures \(TCFD\) for Fiscal Year 2022](#) (May 2022)

Documents

- [Proxy Voting Principles and Guidelines](#) (February 2021)
- [Policy on Sustainable Investing](#) (November 2021)
- [Thinking ahead. Investing in the path to net-zero](#) (February 2022)
- [Message from our Inaugural Chief Sustainability Officer](#) (November 2021)
- [Green Bond Framework](#) (June 2022)
- [Cicero: CPP Investments Green Bond Second Opinion](#) (June 2022)
- [The Decarbonization Imperative](#) (November 2022)
- [The Future of Climate Change Transition Reporting: Practitioner Roundtables](#) (June 2022)
- [Investing in the Potential of Carbon Credits](#) (March 2022)
- [Investing to Enable an Economy-wide Evolution to a Low-carbon Future](#) (December 2021)
- [The Future of Climate Change Transition Reporting. Abatement Capacity Assessment and Projected Abatement Capacity Reporting. A decision-useful, consistent and auditable approach to transition reporting](#) (October 2021)

Webpages and press releases

- [Investing in the path to net-zero](#) (webpage) (accessed September 2022)
- [FAQs about our net-zero commitment](#) (webpage) (accessed September 2022; appears to no longer be available)
- [Board of Directors](#) (webpage) (accessed September 2022)
- [Sustainable Investing | How We Invest](#) (webpage) (accessed September 2022)
- [The Fund](#) (webpage) (accessed September 2022)
- [Green Bond Program](#) (webpage) (accessed September 2022)
- [Holdings and Relationships](#) (webpage) (accessed September 2022)
- [Real Assets Investments](#) (webpage) (accessed September 2022)
- [Our Investments](#) (webpage) (accessed September 2022)
- Press release - [CPP Investments Net Assets Total \\$529 Billion at Second Quarter Fiscal 2023](#) (November 10, 2022)
- Press release - [CPP Investments Publishes 2022 Report on Sustainable Investing](#) (September 28, 2022)
- Press release - [CPP Investments Net Assets Total \\$523 Billion at First Quarter Fiscal 2023](#) (August 11, 2022)
- Press release - [CPP Investments Net Assets Total \\$539 Billion at 2022 Fiscal Year-End](#) (May 19, 2022)

HOOPP

Reports

- [2021 Annual Report](#) (2022)
- [2020 Annual Report](#) (2021)
- [HOOPP 2021 Real Estate Sustainability Report](#) (2022)

Documents

- [HOOPP Sustainable Investing Policy](#) (effective January 1, 2022)
- [HOOPP Statement of Guidelines and Procedures on Proxy Voting](#) (effective January 1, 2022)
- [Statement of Investment Policies & Procedures \(SIP&P\)](#) (effective January 31, 2022)
- [Real Estate Sustainability Policy](#) (2018)

Webpages and press releases

- [TCFD disclosures](#) (webpage) (accessed June 2022)
- [Climate Change](#) (webpage) (accessed October 27, 2022)
- [HOOPP Board of Trustees](#) (webpage) (accessed June 2022)
- [A message to our members. HOOPP's action on climate change](#) (blog post) (February 3, 2022)
- [Sustainable Investing at HOOPP](#) (webpage) (accessed June 2022)
- Press release - [Strong returns keep Plan secure for long-term benefit of Ontario's healthcare workers](#) (March 16, 2022)

IMCO

Reports

- [Ontario Pension Board 2021 Annual Report](#) (2022)
- [Ontario Pension Board 2020 Annual Report](#) (2021)
- [IMCO 2021 ESG Report](#) (2022)
- [IMCO 2021 Annual Report](#) (2022)
- [IMCO 2020 Annual Report](#) (2021)

Documents

- [2022 Climate Action Plan](#) (November 2022)
- [Stewardship Guideline](#) (2022)
- [IMCO Environment, Social, and Governance Screening Guideline](#) (2021)
- [IMCO Responsible Investing Policy](#) (effective January 1, 2022)
- [IMCO Proxy Voting Guideline](#) (August 2021)
- [Ontario Pension Board Statement of Investment Policies and Procedures for the Ontario Pension Board as Administrator of the Public Service Pension Plan](#) (effective Dec 2, 2021)

Webpages and press releases

- [Ontario Pension Board blog post - OPB and IMCO's commitment to ESG and Climate Risk](#) (December 22, 2021)
- [Responsible Investing - Investments](#) (IMCO webpage) (accessed November 22, 2022)
- [Proxy Voting - IMCO Investments](#) (IMCO webpage) (accessed July 2022)
- [Climate Action - Responsible Investing](#) (IMCO webpage) (accessed November 22, 2022)
- [Case Studies - IMCO Investments](#) (IMCO webpage) (accessed July 2022)
- IMCO press release - [IMCO releases interim net zero targets](#) (November 21, 2022)
- IMCO press release - [IMCO releases inaugural Environment, Social and Governance Report](#) (June 29, 2022)
- IMCO press release - [IMCO posts 2021 net return of 9.6%, outperforms benchmark](#) (April 25, 2022)
- IMCO press release - [IMCO joins the Paris Aligned Investment Initiative \(PAII\) on Climate Action](#) (November 8, 2021)

OMERS

Reports

- [2021 Annual Report](#) (2022)
- [2020 Annual Report](#) (2021)
- [Oxford Properties 2021 Global Sustainability Report](#) (2021)

Documents

- [Statement of Investment Policies and Procedures \(SIP&P\) - Primary Plan](#) (effective March 1, 2022)
- [Sustainable Investing Policy](#) (effective January 1, 2022)
- [Proxy Voting Guidelines](#) (effective March 01, 2022)
- [Board and Director Competencies. Governance Manual](#) (effective January 1, 2022)
- [OMERS Sponsor Corporation Board Competency Framework. SC Governance Manual](#) (effective date January 1, 2020)
- [Our Approach to Climate Change](#) (November 24, 2021)
- [OMERS Sustainable Bond Framework](#) (March 2022)

Webpages and press releases

- [Administration Corporation](#) (webpage) (accessed June 2022)
- [Board of Directors](#) (webpage) (accessed June 2022)
- [A Letter from our CIO](#) (webpage) (accessed June 2022)
- [Climate change](#) (webpage) (accessed September 2022)
- [Sustainable investing](#) (webpage) (accessed September 2022)
- [ESG at OMERS](#) (webpage) (accessed September 2022)
- [Proxy Voting Record](#) (webpage) (accessed June 2022)
- [Our Targets. Sustainability at Oxford](#) (webpage) (accessed June 2022)
- Press release and letter from Blake Hutcheson - [OMERS commits to Net Zero 2050 emissions goal, building on its Sustainable Investing program](#) (November 24, 2021)
- Press release - [OMERS successfully completes first sustainable bond offering](#) (April 21, 2022)
- Press release - [OMERS investments steady in a difficult market environment](#) (August 18, 2022)

OPTrust

Reports

- [2021 Responsible Investing Report](#) (2022)
- [2021 TCFD Report](#) (2022)
- [2021 Funded Status Report](#) (2022)

Documents

- [Aligning our portfolio with the global path to net zero. Climate Change Strategy](#) (October 2022)
- [Preparing our Portfolio for the Future: Integrating Climate Scenarios into Asset-Liability Management. An OPTrust Case Study](#) (October 2022)
- [Statement of Investment Policies and Procedures](#) (effective Dec 15, 2021)
- [Statement of Responsible Investing Principles](#) (effective October 7, 2021)

- [Proxy Voting Guidelines](#) (effective October 7, 2021)
- [Climate Change Action Plan. A Thousand Mile Journey](#) (2018)

Webpages and press releases

- [Responsible Investing at OPTrust](#) (webpage) (accessed June 2022)
- [Climate Change](#) (webpage) (accessed October 2022)
- [Board of Trustees](#) (webpage) (accessed June 2022)

OTPP

Reports

- [Annual Responsible Investing and Climate Strategy Report](#) (2022)
- [Annual Responsible Investing and Climate Change Report](#) (2021)
- [2019 Climate Change Report](#) (2020)
- [2021 Annual Report](#) (2022)
- [Our responses to the Task Force on Climate-related Financial Disclosures](#) (2022)
- [2022 Ontario Teachers' Finance Trust Green Bond Report](#) (2022)

Documents

- [Ontario Teachers' Green Bond Framework](#) (2020)
- [Climate Change FAQ](#) (undated)
- [2022 Proxy Voting Guidelines](#) (2022)
- [Responsible Investing Guidelines](#) (2022)
- [Ontario Teachers' 2021 Corporate Governance Principles & Proxy Voting Guidelines updates](#) (2021)
- [Power Shift. Investing in electric grids to accelerate the energy transition](#) (2022)

Webpages and press releases

- [Our leadership](#) (webpage) (accessed September 2022)
- [Our robust, resilient portfolio](#) (webpage) (accessed September 2022)
- Press release - [Ontario Teachers' delivers positive return in first half of 2022](#) (August 15, 2022)

PSP

Reports

- [2022 Annual Report](#) (2022)
- [2021 Annual Report](#) (2021)
- [2022 TCFD Report](#) (2022)
- [2022 Responsible Investment Report](#) (2022)
- [2021 Responsible Investment Report](#) (2021)

Documents

- [PSP Investments Green Asset Taxonomy. Advancing Climate-Aligned Portfolio Management](#) (2022)
- [Climate Strategy - Roadmap](#) (2022)
- [Green Bond Framework](#) (2022)
- [Corporate View on Climate Change](#) (April 21, 2022)
- [Risk Appetite Overview](#) (November 2021) (accessed in July 2022 but appears to no longer be available on PSP's website)
- [Statement of investment policies, standards and procedures for assets managed by the Public Sector Pension Investment Board](#) (November 2021)
- [Responsible Investment Policy](#) (February 2020)
- [Proxy Voting Principles](#) (February 2020)

Webpages and press releases

- [Annual Report 2022](#) (webpage) (accessed July 2022)
- [Responsible Investment Report 2022](#) (webpage) (accessed November 10, 2022)
- [Board of Directors](#) (webpage) (accessed June 2022)

- [Investing responsibly](#) (webpage) (accessed October 7, 2022)
- Press release - [PSP Investments' 2022 Responsible Investment Report demonstrates continued momentum on climate change commitments, data integration and active ownership](#) (November 10, 2022)
- Press release - [PSP Investments launches inaugural Climate Strategy with targets to guide climate action and emissions reduction](#) (April 21, 2022)
- Press release - [PSP Investments Posts 10.9% Return in Fiscal Year 2022 as Net Assets under Management Grow by 12.7% to \\$230.5 Billion](#) (June 9, 2022)

UPP

Reports

- [2021 Annual Report](#) (2022)

Documents

- [UPP Climate Action Plan](#) (June 2022)
- [Top single name public equity holdings](#) (2022)
- [Quick Guide to Responsible Investing](#) (2022)
- [Statement of Investment Policies and Procedures](#) (April 27, 2022)
- [Proxy Voting Policy](#) (October 2021)
- [Responsible Investment Policy](#) (June 10, 2021)
- [Investment Exclusion Policy](#) (April 27, 2022)

Webpages and press releases

- [Member Engagement - My UPP](#) (webpage) (accessed September 2022)
- [Frequently Asked Questions - My UPP](#) (webpage) (accessed October 27, 2022)
- [Origins and Governance - MyUPP](#) (webpage) (accessed September 2022)
- [Responsible Investment - My UPP](#) (webpage) (accessed September 2022)
- [Partners and associations - My UPP](#) (webpage) (accessed September 2022)
- [Strategy - MyUPP](#) (webpage) (accessed October 12, 2022)
- News post (webpage) - [UPP joins the UN-convened Net-Zero Asset Owner Alliance](#) (November 9, 2022)
- News post (webpage) - [UPP launches roadmap to net zero portfolio emissions by 2040, reports on 2021 Year](#) (July 21, 2022)

International Funds

AP2

Reports

- [Sustainability Report 2021](#) (2022)
- [Sustainability Report 1 Januari - 30 Juni 2022](#) (2022)
- [Annual Report 2021](#) (2022)
- [Climate Report 2021 in accordance with the TCFD's recommendations](#) (2022)

Documents

- [Voting Guidelines](#) (March 2021)

Webpages and press releases

- [A unique pension system](#) (webpage) (accessed November 4, 2022)
- [Our mission](#) (webpage) (accessed November 4, 2022)
- [About AP2](#) (webpage) (accessed November 4, 2022)
- [Holdings](#) (webpage) (accessed November 4, 2022)

NEST

Reports

- [2021-2022 Annual Report](#) (2022)
- [Investing for a better future. Our responsible investment outcomes over 2020/21](#) (2021)

- [Nest quarterly investment report. At end September 2022](#) (2022)
- [Climate change progress for Nest's investments 2021/2022](#) (2022)
- [Climate change progress for Nest's investments 2020/21](#) (2021)

Documents

- [Climate Change Risk Policy](#) (December 2021)
- [Nest's global voting guidelines](#) (2022)
- [Nest's voting and engagement standards - UK](#) (2022)

Webpages and press releases

- [How climate change could impact your pension](#) (webpage) (accessed November 7, 2022)
- [Working for Change together](#) (webpage) (accessed November 7, 2022)
- [Members' Panel | About Nest Corporation | Nest Pensions](#) (webpage) (accessed November 7, 2022)
- [Board Members | About Nest Corporation | Nest Pensions](#) (webpage) (accessed November 7, 2022)
- [Growing your money](#) (webpage) (accessed November 7, 2022)
- [How we're investing responsibly](#) (webpage) (accessed November 7, 2022)

NGS SUPER

Reports

- [2020-2021 Annual Report](#)
- [2022 Task Force on Climate-related Financial Disclosures Report](#)

Documents

- [Statement on Climate Change](#) (June 2022)
- [Active Ownership and Engagement Policy](#) (September 2022)
- [Responsible Investment Policy](#) (September 2022)
- [Trustee Board](#) (July 1, 2022)

Webpages and press releases

- [Diversified - MySuper - Investment Options](#) (website list of holdings)
- [NGS Super divests from Woodside, Santos and more](#) (website post August 5, 2022)
- Press release: [Super Fund Divests From Major Fossil Fuel Companies On Path To Carbon Neutral](#) (August 4, 2022)
- [AGL's failed demerger plan and what it means](#) (website post July 8, 2022)
- [Carbon neutral by 2030: Member update](#) (website post May 2, 2022)
- [2030 target: a carbon neutral investment portfolio](#) (website post March 16, 2021)

NYSCRF

Reports

- [Progress Report on the New York State Common Retirement Fund's Climate Action Plan](#) (July 2022)
- [Progress Report on the New York State Common Retirement Fund's Climate Action Plan](#) (April 2021)

Documents

- [New York State Common Retirement Fund Proxy Voting Guidelines](#) (2022)
- [New York State Common Retirement Fund Asset Listing as of March 31, 2021](#)

Webpages and press releases

- Press release - [DiNapoli: State Pension Fund Posts 9.5% Annual Investment Return](#) (August 1, 2022)
- Press release - [NYS Pension Fund Launches Review of Integrated Oil & Gas Companies](#) (August 12, 2022)
- Press release - [DiNapoli: State Pension Fund Calls on Corporations to Address Environmental and Climate Risks](#) (April 20, 2022)
- Press release - [NYS Pension Fund Commits \\$2 Billion to Climate Transition Index](#) (December 9, 2021)