



PSP Investments Green Bond Second Opinion

28 January 2022; revised 25 August 2023

Public Sector Pension Investment Board (“PSP Investments”) is a Canadian pension investment manager, with CAD 204.5 billion in assets under management as of 31 March 2021. PSP Investments manages the amounts transferred to it to fund the pensions of current and retired members of Canada’s federal Public Services, the Canadian Armed Forces, the Royal Canadian Mounted Police, and the Reserve Force. It is a Canadian crown corporation and is headquartered in Ottawa, with its principal business office in Montreal. In August 2023, PSP Investments revised the framework’s eligibility criteria for green building, forestry, and agriculture assets, alongside other minor changes.¹

Within PSP Investments’ eligible green bond asset pool, 72% are existing investments in these project categories: renewable energy (29%), sustainable management of natural resources and land use (26%), green buildings (23%), and clean transportation (22%). Others project categories in the framework include energy efficiency, pollution prevention and control, sustainable water and wastewater management, and circular economy. PSP expects that its first issuance will mainly refinance existing assets. Investments are private and can be either equity or debt.

The framework allows investments in companies that derive all or substantially all their revenues from eligible project categories, and while the framework excludes investments in fossil fuel exploration, processing and transportation, PSP cannot rule out the risk that these companies may earn revenues from fossil fuel-linked activities. According to PSP Investments, it aims for eligible investments to align with available sector-specific net zero trajectories, and would work to divest or transform any activities that do not comply with the framework. Still, PSP will not restrict eligible investee companies from investing in fossil fuel-dependent assets and technologies, e.g. fossil fuel-powered farm equipment and aquaculture vessels. The framework also permits energy efficiency investments in high emitting sectors, for which PSP must carefully manage the risks of emissions lock-in and rebound effects. Last, it is difficult to control the end use of equity investments under the framework, although this risk could be mitigated if PSP controls invested assets and companies, as it expects to for most investments.

It is a pitfall that PSP has not set any portfolio decarbonization targets and remains invested in fossil fuel assets, but otherwise the framework is well-supported by PSP Investments’ climate strategy. It discloses in line with the TCFD recommendations and integrates physical and transition climate risks into asset and portfolio-level risk assessment, including scenario analysis. Investments under the framework are subject to climate resilience, life cycle and supply chain considerations where relevant. PSP is committed to transparent reporting, and it will report on impacts pro-rated according to invested green bond proceeds vs other PSP capital, as well as its overall share of the investment.

Based on the overall assessment of the projects that will be financed under this framework, and governance and transparency considerations, PSP Investments’ green bond framework receives a **CICERO Medium Green** shading and a governance score of **Excellent**. The shading is based upon the project categories that PSP currently has identified in its eligible pool of assets, as referenced above.

SHADES OF GREEN

Based on our review, we rate the PSP Investments’ green bond framework **CICERO Medium Green**.

Included in the overall shading is an assessment of the governance structure of the green bond framework. CICERO Shades of Green finds the governance procedures in PSP’s framework to be **Excellent**.



GREEN BOND PRINCIPLES

Based on this review, this Framework is found in alignment with the principles.



CICERO
Medium Green

¹ This second opinion has been revised to reflect the revised eligibility criteria and minor clarifications on reporting. Other revisions to the framework are deemed inconsequential and the opinion otherwise remains up to date as of January 2022.



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1 Terms and methodology

This note provides CICERO Shades of Green’s (CICERO Green) second opinion of the client’s framework dated January 2022, with revisions in August 2023. PSP Investments has revised the framework’s eligibility criteria for the green buildings and environmentally sustainable management of living natural resources and land use project categories, and also made minor changes related to reporting and its adoption of new terminology describing its sustainability-related functions. This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Since this updated second opinion based on the revised framework is not a full revision, the expiry date remains the same as the one dated January 2022. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client’s policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

Expressing concerns with ‘Shades of Green’

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

CICERO Shades of Green



Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.



Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.



Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.

Examples



Wind energy projects with a strong governance structure that integrates environmental concerns



Bridging technologies such as plug-in hybrid buses



Efficiency investments for fossil fuel technologies where clean alternatives are not available

Sound governance and transparency processes facilitate delivery of the client’s climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in its review of the client’s governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.



2 Brief description of PSP Investments' green bond framework and related policies

Public Sector Pension Investment Board ("PSP") is a Canadian pension investment manager, with CAD 204.5 billion in net assets under management (AUM) as of 31 March 2021. Of this, 48% was in public markets, 16% in private equity, 7% in credit investments, and 27% in real assets including real estate (13%), infrastructure (9%) and natural resources (5%). PSP is invested in over 100 countries and over 100 sectors and industries.

PSP manages these investments on behalf of over 900,000 current and retired members of Canada's federal Public Services, the Canadian Armed Forces, the Royal Canadian Mounted Police, and the Reserve Force. It is a Canadian crown corporation and is headquartered in Ottawa, with its principal business office in Montreal and additional offices in New York, London and Hong Kong. PSP had nearly 900 employees as of 31 March 2021.

Environmental Strategies and Policies

PSP Investments' climate and environmental strategy is embedded in its approach to environmental, social and governance (ESG), which is described in its annual Responsible Investment Reports (RI Reports) and publicly available Responsible Investment Policy (RI Policy), which applies across 100% of its assets. PSP recognizes the materiality of ESG issues to its portfolio performance. As such, addressing ESG issues is part of its investment strategy. This includes integrating climate risks and other ESG issues into its investment and portfolio management processes, using engagement and proxy voting to drive ESG disclosure and best practices among portfolio companies, and through leadership and collaboration on climate issues with multiple stakeholders. Going forward, PSP will actively seek out investments that are aligned with or support the transition to a low-carbon and climate resilient future, which it increasingly assesses using external tools and references such as the Science-Based Targets Initiative (SBTi) and the Investor Leadership Network's (ILN) sector decarbonization pathways. PSP Investments' most recent Responsible Investment Report indicates that it aims to increase its focus on measuring positive, quantitative outcomes from its investments moving forward.

PSP indicates that it prefers active engagement over exclusion in its responsible investment approach and engages with companies over relevant ESG issues that affect shareholder value, both bilaterally and in collaboration with other investors, as well as through an engagement service provider. This includes engaging with companies to improve TCFD-aligned disclosures. In 2021, 327 (58%) of PSP Investments' engagements were on climate change, of which it classified 219 as leading to positive change. PSP also discloses its proxy voting principles, which indicate support for proposals seeking disclosure on issues like emissions, energy and natural resource use, and waste and pollution management. PSP Investments' full proxy voting records are disclosed on its website. PSP Investments' RI policy indicates that it will consider excluding investments where heightened ESG risks exist, but the company does not disclose any ESG-related exclusion criteria, sector- or issue-specific policies or expectations. However, according to PSP Investments, the company has an internal restriction on investments related to cluster munitions, anti-personnel landmines, and other controversial weapons. PSP has also shared that, as part of its increased focus on assessing climate-related risks and opportunities, it generally expects investee companies to adopt a strategy and business model consistent with low greenhouse gas emissions and an effective transition plan to achieve by 2050 or sooner. According to PSP Investments, its expectations of transition plans, as well as approaches to measuring the position of companies and portfolios on the transition path, will continue to rapidly evolve.



The company is implementing the TCFD recommendations and has a TCFD-aligned disclosure section in its Responsible Investment Report, as well as a public position on climate change. Its board and senior executives have oversight of its approach to managing climate-related risks and opportunities, and PSP Investments' Responsible Investment Group² is responsible for implementing this approach. In addition to its head, the group has eight members and serves more generally as the centre of excellence for ESG within PSP Investments, supporting the integration of ESG across asset classes. PSP conducts internal workshops and presentations to ensure investment teams are aware of climate change trends and risks and has developed a climate change toolkit that supports them with the implementation of its climate change approach.

PSP discloses its portfolio carbon footprint using TCFD-recommended metrics, including transparency on its methodology. As of 31 March 2021, PSP Investments' portfolio had a carbon footprint of 101 tCO₂eq per million dollars invested and a weighted average carbon intensity (WACI) of 116 tCO₂eq per million dollars of portfolio company revenue. These represented compounded annual average changes from 2016 of 0.4% and -4.2%, respectively. Between 2020 and 2021, PSP Investments' portfolio carbon footprint declined by 5% from 106 to 101 tCO₂eq per million dollars invested, which it attributes to reduction in carbon-intensive sectors and increase in low-carbon investments. PSP Investments' portfolio carbon footprint covers 76% of its portfolio and includes portfolio companies' Scope 1 and Scope 2 emissions, but excludes Scope 3 due to data considerations.

According to PSP Investments, it is currently updating its climate strategy to be more ambitious. It shared that it currently has limited public and private market exposure to the fossil fuels sector (including both coal and oil & gas), but it does not publicly disclose the extent. PSP does not disclose the climate alignment of its portfolio and has not set any targets for decarbonizing its portfolio. As a percentage of its portfolio, PSP Investments' green assets, including sustainable infrastructure, renewable energy, green buildings, and certified sustainable forestry, stood at CAD 12.6 billion, or 6% of its portfolio as of March 31st 2021.

PSP has conducted scenario analysis and stress testing across multiple time horizons (2030, 2050, 2100) and warming scenarios (2, 3, and 4 degrees) to assess the portfolio-level impacts of transition and physical risks. Its TCFD disclosure indicates that the results confirm the resilience of its long-term asset allocation but does not provide further details. PSP Investments also evaluates physical and transition climate risks for individual assets and investments. This includes assessing the exposure of its real estate, infrastructure, and natural resource assets to physical climate risks and collaborating with other Canadian pension funds and pension investment managers to further develop an online tool for physical climate risk assessment across multiple asset classes. According to PSP Investments, this tool is live and increasingly integrated into its investment due diligence process.

Besides managing investments directly, PSP Investments also outsources a portion of its investments to external investment managers and general partners. PSP Investments expects these partners to align with PSP Investments' Responsible Investment Policy and engages with them to review their ESG integration practices and share best practices. According to PSP Investments, it generally expects its partners to systematically integrate climate change into their governance and investment practices, including considerations for identifying and managing greenhouse gas emissions aligned with a sector-specific best practices and low-carbon development.

PSP Investments is a member or signatory to several collaborative initiatives relevant to climate and environment, including the Principles for Responsible Investment, CDP, and the Sustainable Stock Exchanges Initiative. In 2021, PSP Investments participated in the technical committee aiming to develop a Transition Taxonomy for Canada. PSP Investments participated in the "ESG Data Convergence Project," an initiative led by the private equity sector to create a critical mass of meaningful performance-based ESG data from private companies, including Scope 1 and Scope 2 emissions. PSP Investments has also contributed to the development of a new tool

² Renamed the Sustainable and Climate Innovation Group as of December 2022



and guidance for investors in assessing climate change physical risks under the Investor Leadership Network (ILN) Climate Change initiative.

Use of proceeds

Project categories in PSP Investments' framework include renewable energy; energy efficiency; pollution prevention and control; environmentally sustainable management of living natural resources and land use; sustainable water and wastewater management; circular economy adapted products, technologies and processes; green buildings; and clean transportation.

PSP Investments will use green bond proceeds to finance or refinance, in whole or in part, private investments in new or existing eligible green assets, as defined in its framework. New eligible green assets are defined as those made up to 24 months after issuance; existing eligible green assets include investments made up to 36 months prior to issuance. PSP Investments will invest in eligible green assets via equity participation or debt investments. PSP Investments defines eligible assets as investments in businesses that derive all or substantially all of their revenues from eligible activities included in PSP Investments' Green Bond Framework and as defined by the International Capital Market Association's (ICMA) Green Bond Principles (GBP).

According to information shared by PSP Investments, its currently identified eligible green asset pool is 72% comprised of existing investments in its portfolio. These existing investments are broken down across project categories as follows: renewable energy (30%), green buildings (24%), clean transport (24%), and environmentally sustainable management of living natural resources and land use (25%). PSP Investments has also shared that it expects to include a larger share of existing investments in its first issuance relative to future issuances. PSP Investments has further shared that only the initial investment, transaction costs, and improvement capex for the invested assets are eligible under the framework; administrative and operational expenses are excluded.

Exclusions under the framework include investments that increase the use of fossil fuels, including exploration, processing and/or transportation, as well as nuclear power. The framework also notes that PSP Investments will ensure that selected investments do not increase the use of fossil fuels, but are on a pathway to reduce dependency on fossil fuels over time.

Selection

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Green places on the governance process.

PSP Investments' overarching approach to selecting eligible green assets is to ensure, whenever possible, that eligible green assets demonstrate alignment with sector-specific emissions reduction trajectories, as outlined in the International Energy Agency (IEA's) Net Zero Scenario (NZE) and the Investor Leadership Network (ILN) Sector Pathways. PSP Investments also indicates it will reference the IPCC, SBTi and other credible modeling sources for guidance on understanding the alignment of assets with a 1.5-degree climate scenario.

To oversee selection and evaluation of investments for green bond proceeds, PSP Investments has established a Green Bond Working Group, initially comprising representatives from Treasury, Responsible Investing,³ and Legal Affairs, as well as representatives from its Real Estate, Infrastructure and Natural Resources investment teams, with composition subject to change over time. The working group is also responsible for monitoring

³ Renamed the Sustainable and Climate Innovation Group as of December 2022.



developments in the wider green bond market and PSP Investments' responsible investment strategy and updating the framework and eligibility criteria accordingly. The working group includes a member who represents PSP Investments in the Investor Leadership Network's climate change initiative and the Sustainable Action Finance Council (SFAC) Data Technical Expert Group (TEG), as well as another with expertise in environmental science, impact assessments, and land use policy.

PSP Investments' investment teams identify and propose new investments to the working group, which will meet regularly to assess and select investments that could qualify as eligible green assets. The list of eligible green assets produced by the working group will then be submitted to a senior management committee for final approval.

PSP Investments has clarified that it will rely on external managers to manage and operate a substantial portion of the invested assets, but that these managers play no role in decision-making on eligible investments other than to provide relevant data for assessing the assets' initial and ongoing eligibility under the framework.

According to PSP Investments, it will screen for controversies via procedures that include discussions with investment partners and investee company management to identify ESG risks and incidents. Depending on materiality, the relevant investment team discusses the identified issue with management and develops a mitigation plan, with discussion and decision-making escalated further within PSP Investments where required.

PSP Investments' framework indicates that in its due diligence on investments under the framework, it will require compliance with all relevant national and local regulations and permitting requirements. Its framework also indicates that PSP Investments will aim for its investments to contribute to at least one of the five green bond pillars listed in its framework, while at the same time not impeding any of them.⁴ Moreover, where material, PSP Investments has indicated that it will conduct an assessment of physical climate risks, material life cycle impacts, and an assessment of other adverse impacts (e.g. social risks), in accordance with its existing due diligence practices.

Management of proceeds

CICERO Green finds the management of proceeds of PSP Investments to be in alignment with the Green Bond Principles.

PSP Investments will track proceeds from green bond issuances via a green bond register that will be managed by its Green Bond Working Group. The register will record the allocation of bond proceeds to eligible green assets. Assets that are sold or terminated will be removed from the register.

The Green Bond Working Group is responsible for ensuring that eligible green assets continue to fulfil the eligibility criteria, which it does by annually reviewing the eligibility of invested assets on the register. Eligible green assets that have been sold or found to be no longer compliant with the eligibility criteria will be removed from the register and replaced on a best effort basis by a replacement asset that complies with the framework.

To minimize the presence of unallocated proceeds, PSP Investments will maintain a total amount of eligible green assets that is at least equal to the net proceeds from all outstanding green bond issuances under the framework. PSP Investments will invest any unallocated proceeds in accordance with its normal liquidity activities, which includes investment via PSP Investments' Corporate Liquidity Fund into highly liquid and safe instruments, e.g. sovereign, provincial, and supranational, sub-sovereign and agency (SSAs) bonds.

⁴ 1) Reduce greenhouse gas emissions; 2) enable the transition to a low carbon economy; 3) increase society's capacity to adapt to climate change; 4) conserve natural resources; and 5) promote a circular economy. See framework for full details.



PSP Investments has shared that a significant portion of proceeds will be managed by external managers from an asset management or operational standpoint. These external managers are selected in accordance with PSP Investments' existing process for assessing and selecting external managers. To ensure ongoing compliance with the framework criteria and facilitate impact reporting, external managers are required to submit the relevant data to PSP Investments' Green Bond Working Group.

Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

PSP Investments aims to publish a green bond report within one year from its first issuance and annually thereafter. The report will be made publicly available on its website and will include information on proceeds allocation and impacts.

Reporting will include a list of individual green bond issuances and details such as date, size, maturity, currency and format, with information on allocations and impacts available for each green bond issued, as well as in aggregate. Information about the portfolio of assets financed by green bond proceeds will be reported by project category and geography, where feasible. In addition, PSP Investments has shared that it will disclose the amount of any unallocated proceeds and the proportion of proceeds used to invest in existing vs new assets. However, it will not disclose the proportion of investments financed with green bond proceeds vs other PSP Investments capital.

Impacts will similarly be reported at the project category level and will include qualitative and quantitative environmental performance indicators. PSP Investments has provided a list of indicative metrics in the framework that it will use to report on impacts for each project category, which it indicates was developed based on market best practices and the likelihood of being able to obtain the relevant data. According to PSP Investments, it will report impacts on its pro-rata share of assets and will further pro-rate reported impacts based on the share of investments made with green bond proceeds versus other PSP Investments capital. PSP Investments will also report one or more individual case studies on financed or refinanced assets, where appropriate.

Both allocation and impact reporting will be the responsibility of the Treasury and Responsible Investment⁵ groups. The impact reporting will be reviewed by the Green Bond Working Group. The impact report will then be submitted for approval by the Executive Committee and the Board of Directors. According to PSP Investments, it will obtain an external review of first year reporting; this will be decided for subsequent years depending on the extent to which its green bond portfolio has changed.

⁵ Renamed the Sustainable and Climate Innovation Group as of December 2022.

3 Assessment of PSP Investments’ green bond framework and policies

The framework and procedures for PSP Investments’ green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where PSP Investments should be aware of potential macro-level impacts of investment projects.



Overall shading

Based on the project category shadings detailed below, expected use of proceeds for PSP Investments’ first issuance, and consideration of environmental ambitions and governance structure reflected in PSP Investments’ green bond framework, we rate the framework **CICERO Medium Green**.

Eligible projects under PSP Investments’ green bond framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bond Principles (GBP) state that the “overall environmental profile” of a project should be assessed and that the selection process should be “well defined”.

According to information shared by PSP Investments, its currently identified eligible green asset pool is 72% comprised of existing investments in its portfolio. These existing investments are broken down across project categories as follows: renewable energy (30%), green buildings (24%), clean transport (24%), and environmentally sustainable management of living natural resources and land use (25%).

Category	Eligible project types	Green Shading and some concerns
Renewable energy  	1. Assets that involve the construction, development, operation, acquisition, maintenance and distribution of the following renewable energy generation sources: <ul style="list-style-type: none"> • Wind (onshore and offshore) • Solar • Geothermal • Tidal • Run-of-river and hydroelectricity In accordance with the draft EU Taxonomy, all renewable energy	Medium to Dark Green <ul style="list-style-type: none"> ✓ Renewable energy is a key part of the net zero transition. Medium Green elements of this category could, e.g., be associated with grid investments with substantial fossil fuel generated electricity and support of fossil fuel intensive industries. ✓ This project category has inherent risks of deforestation and other impacts on terrestrial and marine biodiversity and ecosystems, e.g. in project construction and operation, as well as emissions and pollution



assets will demonstrate performance at or below 100g of CO₂e per kWh; greenfield hydro projects will be restricted to facilities of 25 MW or less; and nuclear energy will also be excluded due to challenges often related to final waste management and disposal.

across the life cycle for all technologies.

- ✓ PSP Investments aims to mitigate these risks by conducting due diligence on impacts relating to ecosystems, water resources and material supply chains, as well as by applying the 100g CO₂e per kWh threshold. PSP Investments has also shared that it factors in decommissioning costs during project development, including reusing, repairing for reuse, recycling, storing and disposing of waste.
- ✓ PSP Investments has clarified that its 100g CO₂e per kWh threshold is applied on a life-cycle basis as per the EU Taxonomy, but that it will mainly assess this on a Scope 1 and 2 basis due to lack of data on Scope 3 emissions. Renewable energy technologies may have high Scope 3 emissions.
- ✓ According to PSP Investments, entire grids are eligible for investment if the energy source meets its 100g CO₂e per kWh emissions criteria. Note that this does not rule out support for grids with fossil fuel energy.
- ✓ Geothermal power plants in general offer substantial emissions reductions compared to fossil fuel plants, but emission intensity can be substantially higher than other renewable energy sources such as wind and solar. Risks of heavy metal pollution should be managed.
- ✓ Hydropower is an important source of renewable energy provided that adverse environmental impacts from large projects in particular are avoided.
- ✓ PSP Investments aims to mitigate these risks with a 25 MW limit for greenfield hydro and will conduct due diligence on methane management and biodiversity

impacts, as well as respecting local community and indigenous rights.

Energy efficiency



1. Assets that involve products, technology or services that optimize energy consumption and promote alignment with science-based sector-specific decarbonization pathways, as outlined in the IEA Net-Zero Scenario and/or the EU Taxonomy. Eligibility may include applications in the built environment (i.e., demand response technology; district heating and cooling networks), or industry (i.e., best-in-class industrial equipment such as electric motors or heaters, coupled with process integration options such as waste heat recovery).

In the absence of relevant sector-specific decarbonization information (i.e., Science-Based Target Initiative sector guidance), energy efficiency performance will be assessed on an absolute and like-for-like basis. More specifically, energy performance of individual assets will be measured and compared to an appropriate Global Real Estate Sustainability Benchmark (GRESB) benchmark (i.e., by property sector and property type, where available). Moreover, asset energy intensity (i.e., MWh per sqf) will be quantified and compared to a relevant baseline year to ensure at least a 10% year-over-year reduction can be demonstrated, or 30% over three years, pending data availability
2. Assets that enable the integration of electricity across the economy (i.e., advanced metering infrastructure; energy storage infrastructure)

Light to Medium Green

- ✓ According to PSP Investments, investments in this category can be in high-emissions sectors, i.e. aviation, forestry, mining, manufacturing, steel, cement, plastics, etc. It is PSP Investments' responsibility to be extra cautious when investing in potentially high-emitting sectors.
- ✓ PSP Investments has clarified that eligible energy efficiency investments 1) must align with science-based sectoral decarbonization pathways (e.g. from IPCC and IEA), and 2) must not extend the life of fossil fuel-based energy systems and consider cleaner alternatives as soon as they become available.
- ✓ Energy efficiency projects are subject to rebound effects. When the cost of an activity is reduced, the savings generated may be used to increase the same activity or fund other unsustainable activities.
- ✓ According to PSP Investments, it will monitor assets and engage with tenants/management to ensure that savings do not lead to additional energy consumption. Further, PSP Investments is committed to ensuring that energy efficiency investments do not lead to increases in production capacity in high-emitting sectors.
- ✓ PSP Investments has clarified that to be eligible, assets must demonstrate an energy intensity lower than that of the appropriate GRESB benchmark (i.e., by property sector and property type, where available), in addition to meeting PSP Investments' year-on-year energy intensity reduction criterion.



- ✓ PSP Investments' year-on-year energy intensity reduction criterion aligns with the CBI and EU Taxonomy reduction targets for building upgrades.
- ✓ Smart grids, grid stabilisation and energy storage play a key role in improving the flexibility of the power system, particularly as renewable energy, which is often intermittent and unpredictable, takes a greater share of the energy supply mix, while advanced metering is crucial for improved energy demand management. However there is no guarantee that grid stabilization will support cleaner grids.
- ✓ PSP Investments may not be able to control whether these measures, e.g. advanced metering, are based on fossil fuel infrastructure.

Pollution prevention and control



1. Assets that involve products, technology or services that enable technology-driven sequestration of GHG emissions (i.e., direct air capture and removal of CO₂, CH₄, N₂O, HFCs, and other industrial gasses)

Dark Green

- ✓ Carbon capture and sequestration is a critical component of a sustainable low carbon and climate resilient future; capture and removal of other GHGs has substantial climate mitigation potential due to their higher global warming potential.
- ✓ Potential risks associated with geologic sequestration include leaks into air, soil and groundwater, with potential adverse impacts on human health, local ecosystems, and hydrology, as well as induced seismic activity.
- ✓ Measurement of GHG capture and monitoring of emissions to understand the extent of permanent sequestration is important.
- ✓ PSP Investments has clarified that CCS applications that directly or indirectly support fossil fuel production and use would not be eligible.

Environmentally sustainable management of living natural resources and land use



1. Assets that contribute to sustainable management of natural resources, and land use, including certified sustainable timber, aquaculture, and agriculture production.⁶ For example, certification will include:

- Forest Stewardship Council (FSC);
- Programme for the Endorsement of Forest Certification (PEFC);
- Sustainable Forestry Initiative (SFI);
- Responsible Wood;
- Leading Harvest;
- California Certified Organic Farmers (CCOF)
- Sustainable Agriculture Initiative (SAI) Platform;
- Best Aquaculture Practices (BAP) standard;
- Aquaculture Stewardship Council (ASC) standard;

PSP Investments evaluates certification schemes based on their compliance with national or international standards and regulations; independent validation and verification of their commitment to safety and quality; and high credibility and acceptance within the sub-industry including with asset managers, retailers, and consumers. Certification schemes must be outcomes-based, measurable with high-quality data, and aligned with general climate adaptation and mitigation objectives.

In alignment with the Climate Bonds Standard Forestry Sector Criteria, timber assets will: (1) Avoid natural landscape conversion; (2) Maintain carbon stocks through good

Light to Medium Green

- ✓ Sustainable land use is a critical part of a 2050 solution and includes sustainable agriculture and forestry; avoidance of direct and indirect land use change and biodiversity impact is critical. The inclusion of Light Green for this project category reflects potential for investments in fossil fuel equipment on farms and fossil fuel powered vessels in aquaculture, agricultural operations that use mineral fertilizers, and potential gaps in deforestation safeguards in aquaculture feed standards.
- ✓ According to PSP Investments, its investments do not involve land conversion and/or deforestation, and it will fully due diligence biodiversity impacts, including through use of external consultants if needed. Consideration beyond legally protected areas is encouraged, e.g. High Conservation Value Areas, High Carbon Stock Area, Key Biodiversity Areas, Ramsar Convention Wetlands, World Heritage sites, etc.
- ✓ PSP Investments has clarified that eligible assets must achieve one or more of the listed certification schemes, and agriculture/forestry projects must also meet the CBI requirements.
- ✓ Sustainability certification schemes may vary in scope, focus and credibility; we recommend use of multistakeholder, science-based schemes.
- ✓ The FSC, PEFC, SFI and Responsible Wood standards set requirements for reducing environmental impacts of timber, including safeguards against

⁶ The annual GHG emissions disclosure expectations for assets aligned with the Climate Bonds Standard Forestry and Agriculture Sector Criteria were added to the framework in August 2023.



management practices and annual disclosure of GHG emissions; (3) Analyze the impacts of climate change on the forest, land or surrounding ecosystem, and where possible, mitigate to improve resilience; (4) Undertake meaningful consultation with impacted Indigenous communities.

In alignment with the Climate Bonds Standard Agriculture Sector Criteria, agriculture assets will: (1) Avoid conversion of high carbon stock land; (2) Avoid clearing of woody vegetation over 3 metres in height; (3) Annually disclose GHG emissions and follow low-emission best practices for crop production; (4) Analyze the impacts of climate change on the production area or surrounding ecosystem, and where possible, mitigate to improve resilience. PSP Investments will not include livestock investments in its list of Green Bond eligible investments due to their significant methane emissions.

2. Assets that enable nature-based climate solutions, including conservation, restoration and management of forests, grasslands and wetlands.

PSP Investments' Natural Resources Asset Class is actively engaged on issues of sustainable land-use and management, and methods to improve GHG sequestration estimates. To that end, PSP Investments is presently undertaking efforts to optimize the greenhouse gas sequestration potential of its assets under management.

deforestation and conserving old growth forests. FSC is considered very stringent, while PEFC does not cover all aspects of sustainable forestry. PEFC is an umbrella organization including SFI and Responsible Wood.

- ✓ Afforestation projects may lead to indirect land use change if they impact the availability of agricultural land. According to PSP Investments, it considers such risks when considering the life cycle impacts of its investments.
- ✓ Farmed fish is a protein source with low carbon footprint compared to red meat. However, there is a risk that fish feed may contain deforestation-linked soy and palm oil; other adverse environmental impacts include escapes, effluent and wastewater discharge, antibiotic use, chemicals use, overexploitation of wild fish stocks and other marine ingredients for feed, and sea lice.
- ✓ The ASC and BAP standards safeguard against these risks to varying extents, with the former having stricter safeguards against deforestation in feed – e.g. ASC's salmon farm standard requires 100% of soy inputs to be certified under the Round Table for Responsible Soy (RTRS) standard, whereas this requirement is only 50% for BAP.
- ✓ Leading Harvest addresses 13 sustainability principles including sustainable agriculture, energy use and climate change, and waste and material management; CCOF certification means crops are organically grown without sewage sludge, GMOs, ionizing radiation and most synthetic pesticides and fertilisers.
- ✓ Organic farming may have many positive environmental features, but



its variety of different goals (health, animal welfare, environment, climate) is too complex to allow an overarching assessment of its climate benefits versus conventional production modes.

- ✓ PSP Investments does not exclude the use of mineral fertilizers, which are a source of climate risk and impact due to dependency on natural gas as a raw material, high emissions during the production process, and emissions of nitrous oxides from application. According to PSP Investments, its investee companies optimize fertilizer application to prevent excess usage and are trying to maximize the use of organic fertilizers.
- ✓ In general, agricultural practices that maintain long-term soil health and biodiversity, e.g. precision fertilizer application, low/no-tillage, integrated pest management etc. are likely to be most beneficial for both climate mitigation and resilience.

Sustainable water and wastewater management





1. Assets that involve the acquisition, operation and upgrades of projects that improve efficiency of water distribution networks and/or water recycling services. For example:

- Collection, treatment, recycling, storage or reuse of water, rainwater or wastewater; and tail water recovery systems that collect run-off water from fields that is then recycled for agricultural production. For additional clarity, any water-related agricultural projects would adhere to relevant criteria as outlined in the *Environmentally sustainable management of living natural resources and land use*

Light to Medium Green

- ✓ Improving water efficiency in arid areas is fundamental to climate adaptation measures, as are flood prevention services.
- ✓ According to PSP Investments and in line with its fossil fuel exclusion criteria, assets in this category cannot be powered by fossil fuels.
- ✓ According to PSP Investments, investments in this category that support mining or other heavy industries are ineligible.
- ✓ Wastewater treatment can also be associated with generation of GHGs, e.g. nitrous oxides and methane, depending on conditions and capture technology. According to PSP



	<p>category</p> <p>2. Assets that involve flood prevention, flood defense or storm water management infrastructure or services.</p>	<p>Investments, sludge will be managed according to national regulations and methane leaks will be monitored where regulatory requirements exist.</p> <ul style="list-style-type: none"> ✓ Robust environmental impact and watershed analysis will be critical to avoid adverse impacts on surface and groundwater hydrology and freshwater ecosystems. Resilience assessments are also needed to avoid lock in of water-dependent development in vulnerable areas. ✓ PSP Investments indicates that portfolio companies will be required to implement water conservation/management plans; alignment with water stewardship principles is encouraged to ensure such plans incorporate considerations for governance and other water users in the basin in addition to internal water efficiency. ✓ Embodied and other Scope 3 emissions can be high depending on use of concrete in water infrastructure; PSP Investments has shared that it aims to improve its approach to tracking and integrating Scope 3 emissions into its due diligence process. ✓ Nature-based solutions and green infrastructure should be considered wherever possible.
<p>Circular economy adapted products, production technologies and processes</p>  	<p>1. Assets that enable circular business models by reducing waste, improving resource efficiency, and/or extending product-life. For example:</p> <ul style="list-style-type: none"> • Waste management activities such as waste prevention, waste reduction and closed-loop waste recycling; • Projects that promote the substitution of virgin raw materials with recycled content; 	<p>Light to Medium Green</p> <ul style="list-style-type: none"> ✓ A more circular economy is a key aspect of achieving a low-carbon and resilient future, but following the waste management hierarchy and consideration for life cycle emissions and other environmental impacts is critical to maximizing climate mitigative effects and avoiding unintended consequences.



- Projects that promote zero-waste products, technologies or services.
- Waste incineration activities will be excluded.

- ✓ However, recycling of certain materials, especially plastics, still entails dependence on fossil fuels.
- ✓ Ensuring that waste is certified as such, e.g. under International Sustainability and Carbon Certification (ISCC) standards, is important for avoiding substitution effects and implementing the waste management hierarchy.
- ✓ PSP Investments has not specified any thresholds for recycled material yields.
- ✓ According to PSP Investments, its due diligence process includes consideration for material life cycle impacts, and it aims to improve its approach to tracking and integrating Scope 3 emissions into its due diligence process.

Green buildings



1. Assets that have received, or expect to receive based on their design, construction and operation plans, certification according to third party verified building standards, including:⁷

- Global: LEED Gold or Platinum;
- North America: BOMA BEST Gold or Platinum
- Europe: BREEAM Excellent or Outstanding, HQE Excellent or Exceptional, DGNB Gold or Platinum.
- Australia/New Zealand: Green Star 5 or 6 Rating, NABERS 5 Star or 6 Star.
- Asia: China Three Star or 3 Star Level, Japan CASBEE Superior (S), Singapore BCA Green Mark GoldPLUS or Platinum.

Light to Medium Green

- ✓ In addition to climate issues, the certification schemes (in particular BREEAM) cover a broader set of issues that are important to overall sustainable development, e.g. responsible sourcing of building materials. Such considerations are important for reducing buildings' embodied emissions.
- ✓ These certification levels alone, however, do not ensure improved energy efficiency or climate resilience. Additional requirements on these aspects are hence important.
- ✓ PSP Investments has clarified that buildings with fossil fuel based heating systems are eligible for investment; these should be phased out as quickly as possible.
- ✓ According to PSP Investments, it has determined the minimum criteria under the BREEAM, European, Australian and Chinese certification

⁷ The DGNB, NABERS, CASBEE, and BCA Green Mark certifications were added to the framework in August 2023.



In the context of asset selection as part of its issuances, PSP Investments has established a specific target for its Real Estate investments to achieve better than or equal to performance as outlined in the CRREM 1.5°C pathways. According to the Net Zero Asset Owners Alliance, such targets allow asset owners to better monitor and manage their real estate portfolios with respect to geographic location and building type (such as residential and commercial).

schemes to be equivalent to LEED Gold and Platinum based on literature reviews and third-party consultations. Through similar processes, it has also determined that the German, Japanese and Singaporean certification schemes are similarly aligned to LEED Gold and Platinum.

- ✓ PSP Investments has clarified that its real estate assets will be required to improve their emissions intensity and energy efficiency in line with CRREM's country and building subsector-specific pathways,⁸ and that this will be required in addition to the building certification criteria. However, there is no guarantee that such performance improvements will be achieved. Depending on the frequency with which improvements are implemented, it is possible that building performance lags the CRREM pathways. PSP Investments should aim to ensure timely and ambitious improvements that avoid backloading of emissions reductions.
- ✓ According to PSP Investments, it will also conduct physical climate risk assessment, collect and monitor asset-level energy consumption (i.e. energy intensity), collect scope 1 and scope 2 GHG data (i.e. GHG intensity), renewable energy, waste and water consumption.
- ✓ Indirect support for fossil fuels is possible due to their use in the construction phase and in building technologies (e.g. gas boilers), potential for underlying grids to be fossil fuel intensive, possible dependence on district heating from fossil fuels, and if buildings generate additional trips in fossil fuel-based transportation.

⁸ CRREM pathways are based on the downscaling of global/regional 1.5 and 2-degree pathways to building subsectors and countries, utilizing the Sectoral Decarbonization Approach.



Clean transportation



1. Assets that involve the construction, **Dark Green**

development, operation, acquisition and maintenance of fully electric transportation infrastructure. For example:

- Projects that increase the production and/or distribution of electric vehicles and rolling stock, including freight and passenger vehicles;
- Projects that enable deployment of clean transportation assets (i.e., electrification refueling infrastructure)

- ✓ According to PSP Investments, this category only includes electric vehicles and other zero emission transport solutions, including charging infrastructure, which are part of a 2050 solution. Hybrid vehicles are ineligible. The expected exclusive focus on electric vehicles underpins the Dark Green shading for this project category.
- ✓ PSP Investments has clarified that support for production of commercial, industrial and passenger low-carbon vehicles is eligible, and that only land transportation is included.
- ✓ PSP Investments’ framework-wide exclusion on fossil fuels would prevent investments in this category from supporting fossil fuels, e.g. production of electric coal mining trucks.
- ✓ According to PSP Investments, support for biofuels is currently excluded.
- ✓ The production of batteries and sourcing of raw materials can have substantial climate and environmental impacts. Robust supply chain policies, supplier engagement, and design for improved material recovery and recyclability is required to address these.

Table 1. Eligible project categories

Background

Investors, including asset managers and asset owners, plays a major role in global climate change, both in terms of the emissions associated with their financing and their influence over portfolio companies. Within the sector, asset owners, e.g. pension funds, insurers, and sovereign wealth funds, are especially important in terms of the influence they wield over investments managed internally, their influence over the asset managers they may hire, and the role they play in the global economy as asset allocators.

Asset owners are increasingly paying attention to climate change, as well as other ESG-related issues, due to increased recognition of their importance for managing long-term risk and returns, but also because of growing expectations and requirements from regulators, beneficiaries and civil society. For example, various national and



state jurisdictions, e.g. the EU, UK, France, New Zealand, and California, have introduced mandatory requirements for pension funds and/or insurance companies to publicly disclose their management of climate-related risks and opportunities. In 2020, one of Australia's largest pension funds, REST, agreed to settle a lawsuit filed by a beneficiary alleging it was not protecting his retirement savings against climate change. Under the settlement, REST agreed to align its portfolio with a 2050 net zero goal and disclose in line with the TCFD recommendations.

Civil society scrutiny has also come in the form of NGO campaigns that expose investments in controversial companies and projects, as well as scorecards and reports on how pension funds are addressing climate change. For instance, ShareAction's Asset Owner Disclosure Project (AODP) grades and ranks the world's 100 largest public pension funds based on their approach to climate related risks and opportunities.⁹ In the most recent 2019 report, only 10% of the assessed pension funds had a formal investment policy seeking to align portfolios with the goals of the Paris agreement. Around 50% of pensions funds were found to engage with investee companies on climate issues, although this engagement was often limited to improving disclosure instead of driving action. In this context, PSP Investments was ranked 22 out of 100, placing it in the "Challengers" category, which is the second highest level after "Leaders" and denotes pension funds that are "progressing to a wider variety of capabilities [on climate change]."

In Canada, civil society action has included an NGO-coordinated campaign in which beneficiaries signed letters to the boards and senior management of Canada's ten largest pension funds, including PSP Investments, with questions on how their funds are incorporating climate risks. In the run up to and following COP26, Canadian pension funds have been spotlighted by media for increasing their oil sands investments¹⁰ and their absence from global asset owner initiatives to address climate change (see Net Zero Asset Owner Alliance, below).¹¹

Although Canadian pension funds are not yet subject to climate regulations, in October 2021 the Canadian Association of Pension Supervisory Authorities (CAPSA) announced the formation of a committee with a mandate to develop principles-based guidance on integrating ESG factors into pension fund investment and risk management. In January 2021, Canada's Office of the Superintendent of Financial Institutions (OSFI)¹² released a consultation paper warning that directors and administrators of federally regulated private pension funds may be held liable for failing to address climate risks.¹³ This followed a 2019 recommendation by the Canadian Expert Panel on Sustainable Finance for mandatory climate risk disclosures. OSFI is expected to release draft guidance on climate risk management later this year.

An increasing number of asset owners are participating in sectoral initiatives that aim to address climate change through engagement with portfolio companies, engagement with other stakeholders (e.g. external asset managers and policymakers), and by scaling investments in climate solutions, e.g. the Net Zero Asset Owner Alliance (NZ AOA), Paris Aligned Investment Initiative, Science-Based Targets Initiative, and Climate Action 100+. The NZAOA is the most prominent asset owner-specific initiative and was jointly launched by the Principles for Responsible Investment and UNEP Finance Initiative in 2019. Signatories pledge to transition their portfolios to net zero emissions by 2050 and to regularly report on progress, which includes setting interim targets every five years. The NZ AOA launched its target-setting protocol in January 2021, outlining an approach to setting 2025 targets. In October 2021, the alliance released a progress report finding that 29 members had published 2025 short-term targets, with some members setting more ambitious targets than required. As of December 2021, the NZ AOA counted 65 members controlling over USD 10 trillion in assets under management.

⁹ <https://aodproject.net/wp-content/uploads/2019/01/AODP-PensionsChangingClimate.pdf>

¹⁰ <https://www.reuters.com/business/sustainable-business/canadas-top-pension-funds-boost-investments-high-carbon-oil-sands-2021-05-26/>

¹¹ <https://www.nationalobserver.com/2021/11/09/news/are-canadas-big-eight-pension-funds-committed-net-zero>

¹² It should be noted that OSFI does not regulate public pension providers such as PSP Investments.

¹³ <https://www.osfi-bsif.gc.ca/Eng/Docs/clmt-rsk.pdf>



Canadian members of the NZ AOA include Caisse de dépôt et placement du Québec (CDPQ) and the University of Toronto Asset Management Corporation (UTAM). Notably, CDPQ has announced a target to divest its oil production assets by 2022 and reduce its portfolio carbon intensity by 60% by 2030.¹⁴ UTAM has also announced a target to exit fossil fuel investments, albeit by 2030.¹⁵

The investment sector must rapidly accelerate climate action in order to align the global markets with the Paris Agreement. This will need to involve setting net zero 2050 targets, accompanying them with interim and sector-specific targets, and prioritizing more robust engagement with a focus on accelerating individual corporate transitions to low carbon technologies and activities and getting companies to align their policy lobbying with Paris targets. Finally, it will be necessary to also continue scaling up finance for climate mitigation and adaptation.

Governance Assessment

Four aspects are studied when assessing PSP Investments' governance procedures: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

PSP Investments has developed a strategy for addressing climate change that covers both mitigation and adaptation. Climate change is embedded into its investment decision-making and risk management processes, and PSP Investments has expectations for both portfolio companies and external managers to align their business models with the low-carbon transition. PSP Investments also incorporates physical and transition climate risks into portfolio and asset-level climate risk assessments and has conducted scenario analysis and stress-testing covering both aspects of climate risk for its portfolio. PSP Investments calculates and discloses its portfolio carbon footprint in line with the TCFD recommendations but has not set a target to decarbonize its portfolio. According to PSP Investments, it is in the process of developing a more ambitious climate strategy. We encourage PSP Investments to set interim and long-term targets that align its portfolio with a 1.5-degree scenario as soon as possible, as well as to set a target for scaling the share of green investments in its portfolio.

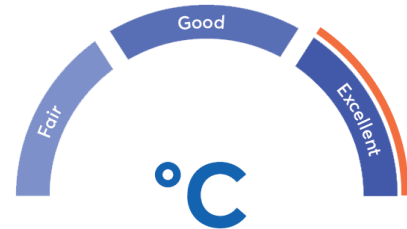
PSP Investments has outlined a clear selection and monitoring process for investments under the framework, including the appointment of a Green Bond Working Group with competencies in environmental issues and responsible investment. Physical climate risk considerations are integrated into project selection, and according to PSP Investments, it will also factor in life cycle and supply chain considerations where relevant. In addition, PSP Investments has committed to applying do-no-significant-harm criteria across its investments under the framework to ensure that they do not create adverse impacts related to water resources, waste and supply chains, and ecosystem protection.

¹⁴ <https://www.reuters.com/business/sustainable-business/canadas-second-largest-pension-fund-caisse-reveals-new-climate-targets-2021-09-28/>

¹⁵ <https://www.newswire.ca/news-releases/university-of-toronto-divesting-4-billion-endowment-from-fossil-fuel-investments-commits-to-net-zero-carbon-emissions-by-2050-883878889.html>



PSP Investments is committed to transparent reporting on both allocation of proceeds and impact reporting. Reporting on allocation will take place at the project category level and will include information on any unallocated proceeds, as well as the split between financing of new versus existing assets in its portfolio. PSP Investments has provided relevant impact indicators for each project category. According to PSP Investments, it will report on impacts pro-rated based on 1) the share of its investment in assets and 2) the proportion of its investments financed with the proceeds vs other PSP Investments capital.



The overall assessment of PSP Investments' governance structure and processes gives it a rating of **Excellent**.

Strengths

PSP Investments' framework excludes investments that increase the use of fossil fuels, including exploration, processing and/or transportation. It also indicates that it will aim for investments to align with sector-specific decarbonization pathways that are aligned with the IEA Net Zero and IPCC scenarios and/or the EU Taxonomy where possible. PSP Investments also informs that its current investments do not entail any deforestation or conversion of ecosystems to croplands. In addition, PSP Investments aims for its investments not to impede any of the five environmental objectives it has listed in its framework. Further, PSP Investments has indicated that it will incorporate considerations for life cycle, supply chain, rebound effects and climate resilience considerations into due diligence where relevant, using third party consultants. Of these, the capacity that PSP Investments has developed with regards to assessing physical climate risks is particularly noteworthy, and it is a strength that all investments under the framework will be subject to assessments of physical risks and climate resilience.

PSP Investments' investments under the framework are limited to private market investments; these are generally large-scale investments via which PSP Investments often has board seats and control over the management of the assets and/or companies. This greatly strengthens PSP Investments to implement and enforce the criteria specified in the framework, as well as to identify and address any controversies.

Weaknesses

PSP Investments' framework allows for investments in companies, i.e. joint venture structures and partnerships, that derive all or substantially all of their revenues from the framework's eligible project categories. According to PSP Investments, a lack of disclosure and visibility across eligible investee companies' operations leaves open the possibility that their remaining revenues are derived from fossil fuel-linked or other activities with substantial environmental impacts. As such, there remains a small risk that PSP Investments invests in companies with assets linked with fossil fuels and other activities that fall outside the framework's scope. According to PSP Investments, it would either divest the ineligible assets in question or exert influence to try and align them with the framework.

Despite the framework's fossil fuel-related exclusion criteria, green bond proceeds could still be used to finance fossil fuel dependent assets and technologies. This relates to the eligibility of equity investments under the framework. According to PSP Investments, it will engage with companies to encourage the decarbonization of their businesses, but it will not actively restrict them from using green bond proceeds to invest in fossil fuel dependent assets and technologies where necessary. Examples include equipment used in forestry and agriculture, e.g. diesel tractors, procurement of mineral fertilizers, or ships used in aquaculture.



Pitfalls

PSP Investments does not have specific exclusion criteria for its investments beyond cluster munitions, anti-personnel landmines, and other controversial weapons. PSP Investments has exposure to fossil fuel assets, including coal, oil and natural gas, in its wider portfolio and may also have exposure to environmentally impactful or controversial activities such as deforestation. Whereas PSP Investments' approach is to engage with portfolio companies with expectations for them to align business models with a net zero transition, these efforts may not lead to emissions reductions at the scale and pace required. Relatedly, PSP Investments has not yet set any targets to decarbonize its portfolio, although it has shared that it is currently developing a more ambitious climate strategy.

In our engagement with PSP Investments, it indicated a high degree of reliance on local legislative and permitting requirements as the primary safeguard against adverse sustainability impacts and unintended consequences from its investments under the framework. For instance, in regard to wastewater treatment investments, it shared that it will monitor methane leaks if regulatory requirements exist. Compliance with local laws and regulations may not always be sufficient safeguards for both developing and emerging markets. We encourage PSP Investments to assess the sufficiency of local laws and regulations and implement criteria to ensure that investments align with the five real world outcomes it aims to achieve through its investments.

While it is positive that PSP Investments aims to align its renewable energy investment criteria with the EU Taxonomy's threshold of 100g CO₂eq/kWh on a life cycle basis, PSP Investments has shared that it will not uniformly factor Scope 3 emissions into its evaluations due to lack of data. This is a pitfall as the majority of emissions from renewable energy technologies are likely to be Scope 3.

It is a pitfall that investments in certain project categories may entail indirect support for fossil fuels for reasons that may be outside of PSP Investments' immediate control. For example, green buildings may still rely on fossil fuel-based heating systems (which should be phased out as soon as possible), depend on fossil fuel-intensive grids, or generate increased trips using fossil fuel vehicles.

According to PSP Investments, its investments under the energy efficiency category can potentially include investments in high-emissions sectors, e.g. aviation, forestry, mining, manufacturing, steel, cement, plastics, etc. PSP Investments should be extra cautious when investing in such sectors to ensure that these investments do not lock-in emissions by extending the life of fossil fuel-based energy systems or lead to increases in production capacity, e.g. through rebound effects.

The criterion for PSP Investments' green building assets to align with the CRREM 1.5-degree pathways is important for ensuring the eventual alignment of these assets with a 1.5-degree future. However, this is not guaranteed, as it depends on the timely implementation of building improvements and retrofits that keep pace with or stay ahead of the decarbonization schedule identified in these pathways. We encourage PSP Investments to ensure that this is the case in order to avoid delays in urgently needed emissions reductions, as well as to maintain a high level of ambition and stay ahead of the pathways wherever possible, e.g. by incentivizing measures that are easy to implement.



Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	PSP Investments Green Bond Framework (January 2022)	PSP Investments' green bond framework
2	PSP Investments Responsible Investment Policy (February 2020)	Outlines PSP Investments' approach to responsible investment
3	PSP Investments Annual Report (2021)	PSP Investments' annual report including financial statements
4	PSP Investments Responsible Investment Report (2021)	PSP Investments' annual report on its responsible investment approach and activities, including its TCFD disclosure
5	PSP Investments Proxy Voting Principles (March 2020)	Outlines PSP Investments' approach to proxy voting
6	PSP Investments Corporate View on Climate Change (2021)	Outlines PSP Investments' position and approach to addressing climate change



Appendix 2: About CICERO Shades of Green

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

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

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

