Second-Party Opinion

Landsec Green Bond Framework

Evaluation Summary

Sustainalytics is of the opinion that the Landsec Green Bond Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2018. This assessment is based on the following:

USE OF PROCEEDS The eligible categories for the use of proceeds are aligned with those recognized by the Green Bond Principles. Sustainalytics considers that the eligible assets, namely (i) green buildings, and projects, namely (ii) renewable energy, (iii) energy efficiency, (iv) sustainable water and wastewater management, (v) waste management and (vi) clean transportation will lead to positive environmental impacts and advance the UN Sustainable Development Goals 6, 7, 9, 11 and 12.

PROJECT EVALUATION / SELECTION Landsec's internal process for reviewing, selecting and validating Eligible Green Assets and Projects is managed by its Green Bond Committee ("GBC"), which is comprised of members of the Sustainability Committee and the Group Treasurer. Net proceeds can refinance Eligible Green Assets and Projects delivered up to 36 months before the issuance of Green Bond. The issuer intends to have all proceeds allocated on issuance. Sustainalytics views this process as aligned with market practice.

MANAGEMENT OF PROCEEDS Landsec's processes for management of proceeds is coordinated by the GBC. The net proceeds will be deposited in a general account and an amount equivalent to the net proceeds will be earmarked for allocation to the Eligible Green Assets and Projects as selected by the GBC. Pending the allocation or reallocation of the proceeds, Landsec will invest the balance of unallocated proceeds, at its own discretion, in cash and/or cash equivalents and/or other liquid marketable instruments, as per the company's liquidity management policy. The process is aligned with market practice.

REPORTING Landsec intends to report on impact and allocation of proceeds on its website on an annual basis. The allocation report will include (i) the list of Eligible Green Assets (re)financed, (ii) the aggregated amount of allocation of the net proceeds to the Eligible Green Assets and Projects for each of the Eligible categories, (iii) the proportion of net proceeds used for financing versus refinancing and (iv) the balance of any unallocated proceeds invested in cash and/or cash equivalents. In addition, Landsec is committed to reporting on several impact metrics. Sustainalytics views Landsec's allocation and impact reporting as aligned with market practice. Sustainalytics further notes that Landsec intends to have third-party verification of its allocation and impact reporting, which is considered best practice.

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Issuer Location	London, United Kingdom

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Introduction

Land Securities Group PLC ("Landsec" or the "Company") is a British real estate investment and development company based in London. It has one of the largest real estate portfolios in the United Kingdom (UK) and predominantly operates in London along with other regional retail and leisure assets.

Landsec has developed the Landsec Green Bond Framework (the "Framework") under which it intends to issue multiple bonds and use the proceeds to finance and refinance, in whole or in part, existing and future projects that will contribute to decarbonize the building stock in the UK. The Framework defines eligibility criteria in six areas:

1. Green Buildings
2. Renewable Energy
3. Energy Efficiency Projects
4. Sustainable Water and Wastewater Management
5. Waste Management Projects
6. Clean Transportation

Landsec engaged Sustainalytics to review the Landsec Green Bond Framework, dated November 2019 and provide a second-party opinion on the Framework's environmental credentials and its alignment with the Green Bond Principles 2018 (GBP).[1] This Framework has been published in a separate document.[2]

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

This document contains Sustainalytics' opinion of the Landsec Green Bond Framework and should be read in conjunction with that Framework.

[1] The Green Bond Principles are administered by the International Capital Market Association and are available at https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/
[2] The Landsec Green Bond Framework is available on Landsec's website at: https://landsec.com/investors/debt-investors

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Landsec Green Bond Framework

Summary

Sustainalytics is of the opinion that the Landsec Green Bond Framework is credible and impactful, and aligns with the four core components of the GBP 2018. Sustainalytics highlights the following elements of Landsec's Green Bond Framework:

- Use of Proceeds:
  - The use of proceeds categories of the Landsec Green Bond Framework (i) green buildings, (ii) renewable energy, (iii) energy efficiency, (iv) sustainable water and wastewater management, (v) waste management and (vi) clean transportation are aligned with the those recognized by the Green Bond Principles. The proceeds will be used to finance and/or refinance eligible projects, delivered up to 36 months prior to issuance. Eligible projects will be in the United Kingdom, including England, Wales and Scotland.
  - New developments or major refurbishments of commercial buildings financed by Landsec must comply with at least two of the three criteria mentioned below.
    - (i) certified to BREEAM Outstanding or Excellent, and/or LEED Platinum or Gold, or other equivalent or higher level of certification with high level of energy efficiency, selection of sustainable materials and sustainability clauses included in leasing contracts.
    - (ii) buildings that achieve or aim to achieve embodied carbon intensity of 900 $kgCO_{2e}/m^2$ for commercial office buildings and 500 $kgCO_{2e}/m^2$ for retail, and/or buildings that target at least 15% reduction in embodied carbon emissions, measured against the design stage baseline. Sustainalytics view this favorably but notes that, as an emerging area of inquiry, there is no recognized baseline on embodied carbon in place to date.
    - (iii) buildings achieving EPC B or above, and/or NABERS Energy 4, and/or any other equivalent or higher level of certification, are eligible under the framework.

    Sustainalytics positively notes Landsec's use of credible third-party certification systems, as BREEAM, LEED and NABERS (see Appendix 1 for Sustainalytics' assessment of the certifications) as well as the inclusion of embodied carbon emissions as an additional criteria in its eligibility categories, given that embodied carbon emissions accounted for 22% of total annual built environmental emissions in 2012.[3] In addition, Sustainalytics highlights that according to data from the UK government, non-residential buildings obtaining a grade of B or higher represent the top 9.6% of labelled non-domestic buildings in the UK,[4] which is aligned with market practice.
  - Furthermore, Landsec intends to finance refurbishments of commercial buildings that will result in the building or space achieving at least 30% improvement in energy efficiency; and/or EPC B or above; and/or NABERS Energy 4 stars or above, and/or any other equivalent or higher level of certification. Sustainalytics positively highlights Landsec's additional criteria for sustainably sourced materials, in compliance with internal guidelines,[5] which can add additional impact to the use of proceeds.
  - Landsec also intends to use part of the proceeds in energy efficiency projects aiming to achieve at least 30% improvement, including fine tuning and optimization measures on central plants, improving or replacing ancillary plants with energy efficient alternatives, improving energy efficiency of HVAC systems and lighting systems, such as LED lighting. Landsec clarified that HVAC systems improvements financed through the Framework will not be sourced by fossil

[3] UK Green Building Council, "Embodied Carbon: Developing a Client Brief", (2017), at: https://www.ukgbc.org/sites/default/files/UK-GBC%20EC%20Developing%20Client%20Brief.pdf
[4] Ministry of Housing, Communities & Local Government, "Live tables on Energy Performance of Buildings Certificates", https://www.gov.uk/government/statistical-data-sets/live-tables-on-energy-performance-of-buildings-certificates.
[5] Landsec Sustainability Brief for Developments, Landsec Materials Brief and Landsec internal sustainability preliminaries.

fuels. Finally, Sustainalytics emphasizes the 30% improvement threshold, which is considered market best practice.
  - Landsec intends to use part of the proceeds to invest in renewable energy, including installation of on-site renewable electricity generation from solar and/or wind sources, energy storage technologies such as batteries and renewable heat technologies, such as air and ground source heat pumps.[6] Sustainalytics is of the opinion that the technologies can contribute to the decarbonization of the energy sector in the UK.
  - Moreover, Sustainalytics positively views Landsec's investments in sustainable water and wastewater management projects aiming to achieve at least 10% improvement, namely in low water flow fixings, water efficient urinals and leakage detection systems.
  - Regarding waste management projects, Landsec intends to finance on-site recycling facilities, e.g. aerobic digestion of food waste for energy production, reverse vending machines. While Landsec does not disclose a threshold for GHG emissions from aerobic digestion, Sustainalytics is of the opinion that aerobic digestion can have a positive environmental impact.[7]
  - Finally, the installation or improvement of cycling facilities and the installation of electric vehicle charging points under the clean transportation use of proceeds category are considered credible and impactful.

- Project Evaluation and Selection:
  - Landsec's internal process for evaluating and selecting projects is managed by the Green Bond Committee ("GBC"), which is comprised of members of the Sustainability Committee, in addition to the Group Treasurer. The GBC will review, select and validate Eligible Green Assets and Projects, based on the Framework. The issuer foresees that proceeds will be allocated upon issuance. Sustainalytics views this process as aligned with market practice.

- Management of Proceeds:
  - Landsec's processes for management of proceeds is coordinated by the GBC. The net proceeds will be deposited in a general account and an amount equivalent to the net proceeds will be earmarked for allocation to the Eligible Green Assets and Projects as selected by the GBC. Pending the allocation or reallocation of the proceeds, Landsec will invest the unallocated proceeds, at its own discretion, in cash and/or cash equivalents and/or other liquid marketable instruments, as per the company's liquidity management policy. This process is aligned with market practice.

- Reporting:
  - Landsec intends to report on impact and allocation of proceeds on its website on an annual basis. The allocation report will include (i) the list of Eligible Green Assets (re)financed, (ii) the aggregated amount of allocation of the net proceeds to the Eligible Green Assets and Projects for each of the Eligible categories, (iii) the proportion of net proceeds used or financing versus refinancing and (iv) the balance of any unallocated proceeds invested in cash and/or cash equivalents. In addition, Landsec is committed to reporting on several impact metrics including, for example, carbon or water intensity and energy consumption. Sustainalytics views Landsec's allocation and impact reporting as aligned with market practice. Sustainalytics further notes that Landsec intends to have third-party verification of its allocation and impact reporting, which is considered best practice.

Alignment with Green Bond Principles 2018

Sustainalytics has determined that Landsec's Green Bond Framework aligns to the four core components of the GBP 2018. For detailed information please refer to Appendix 2: Green Bond/Green Bond Programme External Review Form.

[6] Although both technologies require electricity in order to run, it should use less electrical energy than the heat it produces.
[7] Kim, Y., et al., (2018), "Life Cycle Assessment of BioHiTech Digester for Food Waste Management", at: https://biohitech.com/static/latest/pdf/reports/BioHiTech_Digester_LCA_UDel_2018-08-01.pdf

Section 2: Sustainability Performance of the Issuer

Contribution of Framework to issuer's sustainability strategy

Landsec has a robust sustainability strategy, including quantitative improvements to reduce its emissions in line with the requirements of the global two degree warming target, matching the global efforts by the COP21 Convention on Climate Change in Paris in 2015. As such, in 2016, Landsec became the first real estate company to have its carbon emissions targets certified by the Science Based Targets initiative. [8]

The Company's sustainability strategy is organized around three core areas: the creation of jobs and opportunities, efficient use of natural resources and sustainable design and innovation. Sustainalytics highlights below the most important targets that speak to its sustainability performance.

- Landsec set the target to reduce its carbon intensity by 40% by 2030 compared with a 2013/14 baseline.[9] In November 2019, Landsec updated its carbon target by disclosing its externally approved science-based target, which aims at reducing its absolute carbon emissions by 70% from a 2014 baseline, by 2030.[10] Therefore, the Company aligned its carbon reduction target to a 1.5 degree pathway of global warming,[10] as recommended by the Intergovernmental Panel on Climate Change (IPCC).[11] The company aims to achieve the target by using less energy, promoting on-site clean generation (e.g. through the installation of Solar PV) and procuring renewable energy throughout the UK. In 2018/19, Landsec had reduced its carbon intensity by 39.8% compared to 2013/14, outperforming its target.[12]

- Landsec promotes the use of renewable energy, targeting 100% of its electricity supply from renewables and 3MW of renewable installed capacity by 2030. Since April 2016, the sites managed by the Company are supplied by renewables, through a corporate contract with SmartestEnergy, a pure-player renewable electricity supplier.[13] As of its own installed capacity, Landsec possesses 1.5MW of on-site renewable electricity capacity as of December 2019.[12]

- Regarding energy intensity, to reach 40% energy intensity reduction by 2030 compared to 2013/14 baseline, [14] Landsec has implemented data-driven technologies and energy efficient solutions.[15] Examples include upgrades to its lighting, retrofitting LEDs in car parks, malls and other landlord areas or installing LED lightning at 7 Soho Square,[15] achieving 18.2% reduction by 2018/2019 compared to 2013/2014.

- Finally, Landsec is committed to send zero waste to landfill and to a recycle rate of 75% across its operational activities by 2020. In 2018, the Company diverted 100% of its waste from landfill and recycled 74.7% of operational waste in 2019, achieving 78.9% recycle rate in London.[12]

- Landsec also set relevant targets for sustainable design and innovations i.e. net gain of between 5% and 25% in biodiversity on five sites offering the greatest potential,[16] and sourcing core construction products and materials from ethical and sustainable sources.[17]

Given Landsec's sustainability strategy, targets and achievements, Sustainalytics considers Landsec well positioned to issue green bonds, which will help the Company reach its sustainability objectives.

[8] Landsec, "Efficient use of natural resources – Climate change & carbon", at: https://landsec.com/sustainability/efficient-use-natural-resources/climate-change-carbon
[9] For property under its management for at least two years.
Landsec, "Sustainability Performance and Data 2019", (2019), at: https://lsecuritiesstg.prod.acquia-sites.com/sites/default/files/2019-06/Landsec_Sustainability_Performance_Data_2019_0.pdf
[10] Landsec, "Landsec announces new environmental sustainability strategy", (2019), at: https://landsec.com/media/press-releases/2019/landsec-announces-new-environmental-sustainability-strategy
[11] IPCC, "Global Warming of 1.5ºC", at: https://www.ipcc.ch/sr15/
[12] Landsec, "Sustainability Performance and Data 2019", (2019), at: https://lsecuritiesstg.prod.acquia-sites.com/sites/default/files/2019-06/Landsec_Sustainability_Performance_Data_2019_0.pdf
[13] Landsec, "Efficient use of natural resources – Renewable energy", at: https://landsec.com/sustainabilityefficient-use-natural-resources/renewable-energy
[14] Landsec, "Our commitments", at: https://landsec.com/sustainability/our-commitments
[15] Landsec, "Efficient use of natural resources – Energy management", at: https://landsec.com/sustainability/efficient-use-natural-resources/energy-management
[16] Landsec, "Sustainable design & innovation – Biodiversity", at: https://landsec.com/sustainability/sustainable-design-innovation/biodiversity
[17] Landsec, "Sustainable design & innovation – Materials", at: https://landsec.com/sustainability/sustainable-design-innovation/materials

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

Sustainalytics recognizes the overall positive environmental benefits that will be achieved by the projects financed under this Framework. However, as with any large-scale development projects, it is important to ensure that potential environmental and social risks are mitigated. Related risks include, health and safety, biodiversity risks and risks related to the procurement of materials.

Within the UK, the Health and Safety at Work etc. Act 1974[18] and The Management of Health and Safety at Work Regulations 1999[19] ensure the health and safety of the workplace, including risk assessment, adequate information and training for employees and for health surveillance where appropriate. Employers with five or more employees need to document the significant findings of the risk assessment; furthermore, employers need to "make arrangements for implementing the health and safety measures identified as necessary by the risk assessment." In addition to regulatory compliance, Landsec maintained its OHSAS 18001 certification across 100% of its sites in 2019. Moreover, following the Grenfell fire,[20] the Company has also undertaken a consultation process with its customers and stakeholders to ensure good practices on cladding and limit the risks of vulnerability to building fires.[21]

On the environmental side, the UK has implemented several regulations regarding Environmental Impact Assessment, following the amended EU Directive 2001/42/EC,[22] in order to "protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process."[23]

Additionally, Landsec has defined key sustainability metrics, including the protection of biodiversity and management of invasive species. Acknowledging that access to nature can be beneficial to human health and wellbeing, Landsec is committed to maximize biodiversity across its portfolio.[24] The Company is committed to achieve a 25% biodiversity net gain across five sites offering the greatest potential, by 2030.

Moreover, the Company addresses emission from transportation and risks of ethical issues in manufacturing and extraction of its construction products and materials by sourcing from ethical and sustainable sources. For example, the 21 Moorfields building project[25] is expected to be completed with construction materials manufactured within the UK and Europe only.[12]

Based on the above, Sustainalytics is of the opinion that the UK and Landsec have adequate policies and procedures to mitigate the potential environmental and social risks associated with the activities that will be financed under this Framework.

Section 3: Impact of Use of Proceeds

All six use of proceeds categories are recognized as impactful by the GBP. Sustainalytics has focused on three below where the impact is specifically relevant in the local context.

The Importance of Green Buildings, Energy Efficiency and Renewables to Achieve Net Zero GHG Emissions
Recently, the Chief Executive of the Environment Agency James Bevan emphasized the importance of

[18] UK Legislation, "Health and Safety at Work etc. Act 1974", (1974), at: http://www.legislation.gov.uk/ukpga/1974/37/contents
[19] UK Legislation, "The Management of Health and Safety at Work Regulations 1999", (1999), at: http://www.legislation.gov.uk/uksi/1999/3242/contents/made
[20] The Grenfell Tower Fire is a fire that occurred on June 14, 2017 in the Grenfell Tower, a 24-storey social housing building located in the North Kensington district of London, United Kingdom. According to police officers, 71 people were killed and approximately 8 disappeared (counted as dead, resulting in 79 deaths), plus 74 injured.
[21] Cladding is material applied over another to provide a skin or layer and used to provide a degree of thermal insulation and weather resistance, and to improve the appearance of buildings. According to first investigations, the ACM claddings wrapped around Grenfell Tower have contributed to the rapid spread of the fire, due to their combustible properties. Dezeen, "Inquiry finds "compelling evidence" Grenfell Tower did not comply with building regulations", (2019), at: https://www.dezeen.com/2019/11/01/grenfell-tower-inquiry-building-regulations/
[22] European Union Law, "Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment", (2001), at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32001L0042
[23] Government of the UK, "Environmental Impact Assessment", at: https://www.gov.uk/guidance/environmental-impact-assessment
[24] Landsec, "Responsible Property Investment Policy", (2017), at: https://landsec.com/sites/default/files/2017-07/S_Landsec_Responsible_Property_Investment_Policy.pdf
[25] Landsec, "21 Moorfields", at: https://21-moorfields.com/

climate change, highlighting the increasing political awareness of climate change in the UK.[26] Following this statement in June 2019, the UK became the first "major" economy to set a legally binding target to achieve net zero GHG emissions by 2050.[27] In addition, the UK achieved its GHG emissions reduction target of 40% reduction between 1990 and 2016. According to the UK National Energy and Climate Plan, GHG emissions are projected to be 49% below 1990 levels in 2020 and 53% below in 2030. Moreover, to meet its 2050 climate change target, emissions from buildings will need to be near zero, which is why Sustainalytics views Landsec's investments in green buildings, energy efficiency solutions and low carbon electricity as critical to achieving net zero GHG emissions.

Energy Efficiency Solutions & Green Buildings
In 2014, the building sector contributed 42% of the UK's total carbon footprint.[28] The UK has therefore adopted policies to reduce the sector's carbon emissions, such as the integration of the EU Energy Performance of Buildings Directive (EPBD)[29] and the EU Energy Efficiency Directive (EED),[30] as well as the Buildings Mission, which aims to reduce the energy use of new buildings by 50% by 2030, reducing the cost of retrofitting efficiency measures in existing stock and promoting clean energy sources.[31] Nevertheless, in its annual report to the British Parliament,[32] the Climate Change Council ("CCC") identified the building sector as one of those which have not seen their emissions fall over recent years. In fact, emissions from the building sector increased by 3% to 88 $MtCO_2$ in 2018,[32] which is mainly explained by increased heating needs, especially during the extreme cold weather in February 2018.

The CCC set four priorities for the building sector in the coming year, including a low-carbon heat strategy and policies to improve energy efficiency for all buildings.[32] As such, Sustainalytics positively notes that the use of the proceeds by Landsec are in line with recommendations of the CCC and can have a positive impact on the carbon footprint of the building sector.

Renewable Energy
In 2016, 67% of the total electricity supply in the UK was consumed in buildings and 53% of energy used in buildings is from electricity,[28] stressing the need to decarbonize the UK's electricity. The UK has made important progress over the past year in decarbonizing its electricity mix and generation. The renewable electricity capacity doubled between 2013 and 2017,[33] with renewables accounting for 27.9% of electricity supplied in 2017.[31] Consequently, the power sector has seen its emissions dropped by 10% in 2018, being the sector with the largest percentage reduction for the fifth consecutive year,[32] driven by a shift away from coal.[34]

Furthermore, the British government expects 63GW of renewable electricity capacity to be installed by 2030, accounting for 50% of total electricity generation. Growing renewable capacity will further require increasing system flexibility,[35] which will be ensured by Landsec's investments in storage systems such as batteries. These investments are in line with the implementation of the UK's Smart Systems and Flexibility Plan by 2022.[36] As such, Sustainalytics is of the opinion that Landsec's investments in renewable energy can help the UK to meet its renewable energy target and reduce the GHG emissions from the power used in Landsec's buildings.

[26] Government of the UK, "It's the climate emergency, stupid – Speech by Sir James Bevan", (2019), at: https://www.gov.uk/government/speeches/its-the-climate-emergency-stupid
[27] Government of the UK, "UK becomes first major economy to pass net zero emissions law", (2019), at: https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law
[28] UK Green Building Council, "Climate Change - UKGBC's vision for a sustainable built environment is one that mitigates and adapts to climate change", at: https://www.ukgbc.org/climate-change/
[29] European Commission, "Energy Performance of Buildings Directive (2010/31/EU)", at: https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-performance-of-buildings/energy-performance-buildings-directive
[30] European Commission, "Energy Efficiency Directive (2012/27/EU)", at: https://ec.europa.eu/energy/en/topics/energy-efficiency/targets-directive-and-rules/energy-efficiency-directive
[31] Department for Business, Energy & Industrial Strategy, "The UK's Draft Integrated National Energy and Climate Plan (NECP)", (2019), at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/774235/national_energy_and_climate_plan.pdf
[32] Committee on Climate Change, "Reducing UK emissions – 2019 Progress Report to Parliament", (2019), at: https://www.theccc.org.uk/publication/reducing-uk-emissions-2019-progress-report-to-parliament/
[33] Department for Business, Energy & Industrial Strategy, "Digest of United Kingdom Energy Statistics 2018", (2018), at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/736148/DUKES_2018.pdf
[34] Department for Business, Energy & Industrial Strategy, "2018 UK Greenhouse Gas Emissions, Provisional Figures", (2018), at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790626/2018-provisional-emissions-statistics-report.pdf
[35] IRENA, "Power system flexibility for the energy transition", (2018), at: https://www.irena.org/publications/2018/Nov/Power-system-flexibility-for-the-energy-transition
[36] Government of the UK, "Upgrading our energy system: smart systems and flexibility plan", (2017), at: https://www.gov.uk/government/publications/upgrading-our-energy-system-smart-systems-and-flexibility-plan

Alignment with/contribution to SDGs

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

Use of Proceeds Category	SDG	SDG target
Green Buildings	9. Industry, Innovation and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Renewable energy Energy Efficiency Projects	7. Affordable and Clean energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix 7.3 By 2030, double the global rate of improvement in energy efficiency
Sustainable Water and Wastewater Management	6. Clean Water and Sanitation	6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
Waste Management Projects	12. Responsible Consumption and Production	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
Clean Transportation	11. Sustainable Cities and Communities	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons. 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

Conclusion

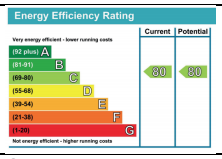
Landsec has developed a Green Bond Framework under which it intends to issue multiple bonds and use the proceeds to finance and/or refinance future and existing projects related to green buildings, renewable energy, energy efficiency, sustainable water and wastewater management, waste management project and clean transportation in the UK. Landsec's project evaluation and selection processes as well as management of proceeds and reporting are aligned with market practice. Sustainalytics considers that the use of proceeds can help the UK real estate sector to reduce carbon emissions from the building and construction.

Based on the above, Sustainalytics considers that Landsec is well positioned to issue green bonds and that the Landsec Green Bond Framework is credible, robust and aligns with the four pillars of the Green Bond Principles 2018.

Appendices

Appendix 1: Green Buildings Certifications

	LEED	BREEAM	NABERS	EPCs (Energy Performance Certificates)
Background	Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by the non-profit U.S. Green Building Council (USGBC) and covers the design, construction, maintenance and operation of buildings.	BREEAM (Building Research Establishment Environmental Assessment Method) was first published by the Building Research Establishment (BRE) in 1990. Based in the UK. Used for new, refurbished and extension of existing buildings.	The National Australian Built Environment Rating System (NABERS) is a performance rating tool for existing buildings in Australia. It is administered by the Australian New South Wales, Office of Environment and Heritage (OEH), and is used to measure building's energy efficiency, carbon emissions, water consumed, waste produced, and compare it with similar buildings. The Better Building Partnership (collaboration between property owners to improve the sustainability of existing commercial building stock in the UK) and the OEH are adapting, trialing and implementing the NABERS Energy for Offices programme so that new office developments in the UK can be certified.	Energy performance certificates (EPCs) are a rating scheme to summarize the energy efficiency of buildings in the EU. The EPC looks broadly similar to the energy labels provided with vehicles and many household appliances. Its purpose is to indicate how energy efficient a building is. The better the rating, the more energy efficient the building.
Certification levels	Certified Silver Gold Platinum	Pass Good Very Good Excellent Outstanding	1-star (Poor) 2-stars (Below Average) 3-stars (Average) 4-stars (Good) 5-stars (Excellent) 6-stars (Market Leading)	G – Energy inefficient F E D C B A – Very efficient
Areas of Assessment: Environmental Project Management	Integrative process, which requires, from the beginning of the design process, the identification and creation of synergies between the various project stakeholders regarding the construction choices and the technical systems.	Management (Man) addresses various aspects: project management, deployment, minimal environmental disturbance worksite and stakeholder engagement.		
Areas of Assessment: Environmental Performance of the Building	Energy and atmosphere Sustainable Sites Location and Transportation Materials and resources Water efficiency Indoor environmental quality Innovation in Design	Energy Land Use and Ecology Pollution Transport Materials Water Waste Health and Wellbeing Innovation	There are several ratings available based on the type of building and the applicant (building tenant, or owner and/or manager). The rating tools available for office buildings are: • Energy (without Greenpower)	The energy performance of the building is shown as a carbon dioxide (CO_2) based index.

	Regional Priority		• Energy (with Greenpower) • Carbon Neutral • Waste • Water Indoor Environment	
Requirements	Prerequisites (independent of level of certification) + Credits with associated points These points are then added together to obtain the LEED level of certification There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operation and Maintenance).	Prerequisites depending on the levels of certification + Credits with associated points This number of points is then weighted by item[37] and gives a BREEAM level of certification, which is based on the overall score obtained (expressed as a percentage). Majority of BREEAM issues are flexible, meaning that the client can choose which to comply with to build their BREEAM performance score. BREAAM has two stages/ audit reports: a 'BREEAM Design Stage' and a 'Post Construction Stage', with different assessment criteria.	NABERS ratings for office buildings and tenancies are based on 12 months of (real) operational data, rather than potential performance estimate. There is a Carbon Neutral Certification available, as an extension to NABERS Energy rating, for buildings of NABERS Energy rating of 4-stars or above. There are rating system for different types of buildings, including apartment buildings, office buildings, office tenancies, shopping centers, data centres, and hotels.	
Performance display				
Accreditation	LEED AP BD+C LEED AP O+M	BREEAM International Assessor BREEAM AP BREEAM In Use Assessor		Government approved accreditation scheme
Qualitative considerations	Widely recognised internationally, and strong assurance of overall quality.	Used in more than 70 countries: Good adaptation to the local normative context. Predominant environmental focus. BREEAM certification is less strict (less minimum thresholds) than HQE and LEED certifications.	NABERS Energy is eligible in Australia and in the UK. In the UK, the certification is expected to pay attention to how the building performs in operation, compared to EPCs that focus on the theoretical performance of a building's design under standard conditions of use (i.e. introducing a shift from environmental performance of the design and the in-use energy performance of the buildings).	Used across the EU, the EPCs come from the Directive 2002/91/EC (Energy Performance of Buildings Directive).

[37] BREEAM weighting: Management 12%, Health and wellbeing 15%, Energy 19%, Transport 8%, Water 6%, Materials 12.5%, Waste 7.5%, Land Use and ecology 10%, Pollution 10% and Innovation 10%. One point scored in the Energy item is therefore worth twice as much in the overall score as one point scored in the Pollution item

Appendix 2: Green Bond / Green Bond Programme - External Review Form
Section 1. Basic Information

Issuer name:	Landsec
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable*: [specify as appropriate]*	Landsec Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	November 2019
Publication date of review publication: *[where appropriate, specify if it is an update and add reference to earlier relevant review]*	

Section 2. Review overview

SCOPE OF REVIEW

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

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

☒	Use of Proceeds	☒	Process for Project Evaluation and Selection
☒	Management of Proceeds	☒	Reporting

ROLE(S) OF REVIEW PROVIDER

☒	Consultancy (incl. 2nd opinion)	☐	Certification
☐	Verification	☐	Rating

☐ Other *(please specify)*:

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

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

Please refer to Evaluation Summary above.

Section 3. Detailed review

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

1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The eligible categories for the use of proceeds are aligned with those recognized by the Green Bond Principles. Sustainalytics considers that the eligible assets, namely (i) green buildings, and projects, namely (ii) renewable energy, (iii) energy efficiency, (iv) sustainable water and wastewater management, (v) waste management and (vi) clean transportation will lead to positive environmental impacts and advance the UN Sustainable Development Goals 6, 7, 9, 11 and 12.

Use of proceeds categories as per GBP:

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

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

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Landsec's internal process for reviewing, selecting and validating Eligible Green Assets and Projects is managed by its Green Bond Committee ("GBC"), which is comprised of members of the Sustainability Committee and the Group Treasurer. Net proceeds can refinance Eligible Green Assets and Projects delivered up to 36 months before the issuance of a Green Bond. The issuer intends to have all proceeds allocated on issuance. Sustainalytics views this process as aligned with market practice.

Evaluation and selection

☒	Credentials on the issuer's environmental sustainability objectives	☒	Documented process to determine that projects fit within defined categories
☒	Defined and transparent criteria for projects eligible for Green Bond proceeds	☒	Documented process to identify and manage potential ESG risks associated with the project
☐	Summary criteria for project evaluation and selection publicly available	☐	Other *(please specify):*

Information on Responsibilities and Accountability

☒ Evaluation / Selection criteria subject to external advice or verification

☐ In-house assessment

☐ Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section *(if applicable)*:

Landsec's processes for management of proceeds is coordinated by the GBC. The net proceeds will be deposited in a general account and an amount equivalent to the net proceeds will be earmarked for allocation to the Eligible Green Assets and Projects as selected by the GBC. Pending the allocation or reallocation of the proceeds, Landsec will invest the balance of unallocated proceeds, at its own discretion, in cash and/or cash equivalents and/or other liquid marketable instruments, as per the company's liquidity management policy. This process is aligned with market practice

Tracking of proceeds:

☒ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner

☒ Disclosure of intended types of temporary investment instruments for unallocated proceeds

☐ Other *(please specify)*:

Additional disclosure:

☐ Allocations to future investments only

☒ Allocations to both existing and future investments

☐ Allocation to individual disbursements

☐ Allocation to a portfolio of disbursements

☐ Disclosure of portfolio balance of unallocated proceeds

☐ Other *(please specify)*:

4. REPORTING

Overall comment on section (if applicable):

Landsec intends to report on the impact and allocation of proceeds on its website on an annual basis. The allocation report will include (i) the list of Eligible Green Assets (re)financed, (ii) the aggregated amount of allocation of the net proceeds to the Eligible Green Assets and Projects for each of the Eligible categories, (iii) the proportion of net proceeds used for financing versus refinancing and (iv) the balance of any unallocated proceeds invested in cash and/or cash equivalents. In addition, Landsec is committed to reporting on several impact metrics. Sustainalytics views Landsec's allocation and impact reporting as aligned with market practice. Sustainalytics further notes that Landsec intends to have third-party verification of its allocation and impact reporting, which is considered best practice.

Use of proceeds reporting:

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s) ☐ Other *(please specify):*

Information reported:

☒ Allocated amounts ☒ Green Bond financed share of total investment

☐ Other *(please specify):*

Frequency:

☐ Annual ☐ Semi-annual

☐ Other (please specify):

Impact reporting:

☐ Project-by-project ☒ On a project portfolio basis

☐ Linkage to individual bond(s) ☐ Other (please specify):

Frequency:

☒ Annual ☐ Semi-annual

☐ Other (please specify):

Information reported (expected or ex-post):

☒ CO_2 Emissions / Savings ☒ Energy Savings

☒ Decrease in water use ☒ Other ESG indicators (please specify): Building certification; On-site renewable electricity capacity, waste recycled and/or diverted from landfill; number of EVs charging points

Means of Disclosure

☐ Information published in financial report ☐ Information published in sustainability report

☒ Information published in ad hoc documents ☐ Other (please specify):

☐ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

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

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

https://landsec.com/investors/debt-investors

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

☐ Consultancy (incl. 2nd opinion) ☐ Certification

☐ Verification / Audit ☐ Rating

☐ Other *(please specify):*

Review provider(s): **Date of publication:**

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

i. Second Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.

ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.

iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.

iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

Disclaimer

Sustainalytics

Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that supports investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, the firm partners with institutional investors who integrate ESG information and assessments into their investment processes. Spanning 30 countries, the world's leading issuers, from multinational corporations to financial institutions to governments, turn to Sustainalytics for second-party opinions on green and sustainable bond frameworks. Sustainalytics has been certified by the Climate Bonds Standard Board as a verifier organization, and supports various stakeholders in the development and verification of their frameworks. In 2015, Global Capital awarded Sustainalytics "Best SRI or Green Bond Research or Ratings Firm" and in 2018 and 2019, named Sustainalytics the "Most Impressive Second Party Opinion Provider. The firm was recognized as the "Largest External Reviewer" by the Climate Bonds Initiative as well as Environmental Finance in 2018, and in 2019 was named the "Largest Approved Verifier for Certified Climate Bonds" by the Climate Bonds Initiative. In addition, Sustainalytics received a Special Mention Sustainable Finance Award in 2018 from The Research Institute for Environmental Finance Japan and the Minister of the Environment Award in the Japan Green Contributor category of the Japan Green Bond Awards in 2019.

For more information, visit www.sustainalytics.com

Or contact us info@sustainalytics.com