SL Green Realty Corp. - Climate Change 2019

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

SL Green Realty Corp., an S&P 500 company and New York City's largest office landlord, is a fully integrated real estate investment trust, or REIT, that is focused primarily on acquiring, managing, and maximizing the value of Manhattan commercial properties.

Our core business is the ownership of high-quality commercial properties, and our primary business objective is to maximize the total return to stockholders, through strategically acquiring, redeveloping, and repositioning office properties primarily located in Manhattan, and re-leasing and managing these properties for maximum cash flow. The commercial real estate expertise resulting from owning, operating, investing, and lending in Manhattan for over 34 years has enabled us to invest in a collection of premier office and retail properties, selected multifamily residential assets, and high-quality debt and preferred equity investments.

As of March 31, 2019, SL Green held interests in 96 Manhattan buildings totaling 46.4 million square feet. This included ownership interests in 27.7 million square feet of Manhattan buildings and 18.7 million square feet of buildings securing debt and preferred equity investments.

In addition, SL Green held ownership interests in 7 suburban properties comprised of 15 suburban buildings totaling 2.3 million square feet in Brooklyn, Westchester County, and Connecticut.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2018	December 31 2018	Yes	2 years

C0.3

(C0.3) Select the countries/regions for which you will be supplying data.

United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board Chair	SL Green's Chairman of the Board and CEO has responsibility to oversee climate-related issues for the entire portfolio. In November 2018 and April 2019, he presented to investors on SL Green's sustainability program, and to the Board in December 2018 and May 2019. SL Green's Chairman of the Board and CEO also receives monthly updates from SL Green's Sustainability Team. He has committed to consistently deliver superior performance to conserve finite resources, incorporate citywide initiatives and uphold the Company's responsibility to the community. The sustainability team also presents annually to the Executive Team regarding SL Green's sustainability program as well as provides the team with periodic updates throughout the year.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues Other, please specify (Overseeing environmental risk assessments driven by climate legislation)	In addition to financial and operational performance, non-financial measures, including sustainability, social and governance goals, are discussed by the Board. The Board believes that, through these ongoing efforts, they are able to focus on our performance over the short, intermediate and long term to secure the continuing health and success of the business for SL Green's employees, tenants, community, and stockholders.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Operating Officer (COO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

SL Green is committed to maintaining market-leading sustainability performance for our tenants, investors and city. With executive and Board oversight of the program, environmental, social and governance initiatives are given top-down support and are prioritized companywide. SLG's preeminent sustainability program has garnered substantial industry recognition, a testament to our distinguished approach to efficiency and the ingenuity of our employees.

SL Green's Sustainability Team is led by the COO. The COO is the leader of over 1,000 employees and is responsible for managing building operations, construction, IT and sustainability across 27.7M square feet and oversees one of the most prominent real estate programs in the country. The rationale for the COO to be the highest-level management position with responsibility for climate-related issues is due to his position overseeing the majority of the functions related to taking full advantage of climate-related opportunities and mitigating climate-related risks for SL Green, particularly considering his oversight of building operations, construction, technology and sustainability.

4 members that focus on sustainability full-time report to the COO. The Sustainability Team presents annually to the Executive Team regarding SL Green's sustainability program as well as provides the team with periodic updates throughout the year.

SL Green Realty Corp.'s mission is to stay committed to environmentally sustainable initiatives and innovation that deliver efficiency, value, and health for our business, tenants and community. Structured around three key areas, Efficiency, Tenant Experience, and Industry Leadership, our program continues to introduce a broad platform of market-leading initiatives to address energy usage, natural resource consumption, air quality, recycling, transportation, and education. Since the program's inception, SL Green has invested over $66 million in energy efficiency projects, achieved LEED certifications across 15 million square feet, and maintained ENERGY STAR labels across 40 properties.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Who is entitled to benefit from these incentives?
Other, please specify (Portfolio Managers, Leasing, and Acquisitions Teams)

Types of incentives
Monetary reward

Activity incentivized
Other, please specify (Annual Presentations)

Comment
Every year, SL Green's 5 portfolio teams present to Executive Management on their achievements to date, including sustainability performance. One team is selected and is given a monetary award for garnering the best results.

Who is entitled to benefit from these incentives?
All employees

Types of incentives
Recognition (non-monetary)

Activity incentivized
Energy reduction project

Comment
SL Green holds an annual award ceremony for its Engineering team to recognize the properties that have operated in alignment with the highest levels of sustainability, based on ENERGY STAR scores.

Who is entitled to benefit from these incentives?
Other, please specify (Union (Local 32BJ) Night Cleaning Supervisors)

Types of incentives
Monetary reward

Activity incentivized
Other, please specify (Environmental Regulation Compliance)

Comment
SL Green's night cleaning supervisors who are responsible for overseeing cleaning procedures and staff are given annual monetary awards for zero incidents of non-compliance with New York City's recycling laws, Local Law 87 of 2017.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	3	
Medium-term	3	10	
Long-term	10	30	

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

At SL Green the process for our organization to identify and assess climate related risks is integrated into multi-disciplinary company-wide risk identification, assessment, and management processes. We proactively identify and analyze climate change risk and resiliency through life cycle assessments from asset acquisition through disposition. This process occurs every 6 months or more frequently and as new asset acquisitions and dispositions occur. We look into the future for risks and this includes risks that are out more than 6 years. A substantive financial impact for SL Green is defined as over $50,000.

We also identify and assess NYC and NYS governing legislatures for alignment of climate goals. For example, in response to risk caused by possible NYC & NYS governing legislatures in the future we have worked towards alignment and goal setting within the NYC Carbon Challenge in which we have voluntarily enrolled eight of our properties—totaling more than eight million square feet. By 2026, SL Green has committed to reducing the greenhouse gas emissions of each of these buildings 30 percent below their respective base years ranging from 2011 to 2014.

SL Green has also undergone an environmental risk assessment pertaining to New York City's climate regulation, Local Law 97 of 2019. This legislation sets caps on the amount of carbon buildings over 25,000 square feet can emit on an annual basis, in line with the IPCC (Intergovernmental Panel on Climate Change) 2 degree Celsius climate scenario. SL Green evaluated the impact of this legislation across its portfolio from 2018 through 2050.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Existing regulations play a critical role in the real estate industry and SL Green always considers these regulations in its risk assessments, from asset acquisition through disposition and all operations. In 2019, New York City passed Local Law 97 of 2019. This law requires buildings greater than 25,000 square feet to cut their emissions 40% by 2030, and 80% by 2050, relative to a 2005 baseline, in alignment with a 2 degree Celsius climate scenario. A specific example of a current regulation we consider continuously is Local Law 87 (LL87) which mandates that buildings over 50,000 gross square feet undergo periodic energy audit and retro-commissioning measures, as part of the Greener, Greater Buildings Plan (GGBP). The other portions of the GGBP also are specific relevant examples of Current Regulations that are relevant and always included such as: GGBP consists of four regulatory pieces supplemented by job training opportunities and a financing entity called the New York City Energy Efficiency Corporation (NYCEEC).The regulations include Local Law 84: Benchmarking: annual requirement to benchmark building energy and water consumption Local Law 85: NYC Energy Conservation Code (NYCECC): New York City's local energy code Local Law 87: Energy Audits & Retro-commissioning: complete an energy audit and perform retro-commissioning once every 10 years Local Law 88: Lighting & Sub-metering: by 2025, the lighting in the non-residential space be upgraded to meet code and large commercial tenants be provided with sub-meters.
Emerging regulation	Relevant, always included	Emerging regulations can greatly affect the long term return / performance on our assets. SL Green continuously monitors emerging regulations in the localities that we operate in. NYC's Greener, Greater Buildings Plan (GGBP). For example we currently watch the NYC government's own emissions goals, codes, and local law development. Looking ahead, the City's has a plan to reduce buildings-based emissions by 80% by 2050 from a 2005 baseline. We are closely monitoring the NYC task force and technical study organized to identify the pathway New York City must take beyond 2030 to reach this goal, and working to align our own programs with these and other emerging regulations. Another example of emerging regulations that we are monitoring is NYC's Green Codes Task Force, the most comprehensive effort of any U.S. city government to green the codes and regulations that impact buildings. The Green Codes Task Force produced 111 recommendations to bring the most cost-effective green building benefits to all buildings. The proposals address the wide array of building impacts, such as water consumption, landscape practices, toxicity of materials, building resilience, occupants' physical activity and energy efficiency. After two years since the proposals were introduced, many have already been incorporated into City law or practice, while others are in the process of being crafted into workable laws.
Technology	Relevant, always included	SL Green has risks associated with technological improvements or innovations that support the transition to a lower-carbon, energy-efficient economic system and we include this in our climate-related risk assessments. One risk we consider is the decisions that we make on which of various competing climate mitigating technologies we decide to implement and what are the various risks and costs/ ROI involved with each (or to not utilize a technology). Under NYC Local Law 87: Energy Audits Retro-commissioning, we must complete an energy audit and perform retro-commissioning once every 10 years. At SL Green we are continually performing these types of assessments to make sure that we are considering our best options and mitigating the risk of bad decision making when it comes to the selection of climate-mitigating technologies.
Legal	Relevant, always included	SL Green incorporates the legal risk and possibility of litigation claims related to climate change in its risk assessments throughout its business. An example of climate-related litigation that we prioritize is brownfield reclamation. We abide to the public law of Small Business Liability Relief and Brownfields Revitalization Act. When possible, we prioritize development on commercial / industrial sites, instead of on undeveloped land that perpetuates sprawl.
Market	Relevant, always included	SL Green serves the largest corporate real estate market in the world. Changing consumer and investor demands are increasingly driving corporations to seek more from their properties when it comes to climate resiliency, energy efficiency, and other climate related features. If we do not continue to position ourselves in the market as a leader providing office space that meets the growing demands of our tenants, we have a risk of losing out to our competitors for business, and the possible decreasing of the value of our assets. For our company specifically, SL Green is able to charge a premium in our market because of the alignment with the values of our tenants, and the collaboration that we have with various tenants to help meet these shared goals on climate resiliency, energy efficiency, and other climate related features We always consider this risk in our business decision making.
Reputation	Relevant, always included	The reputation of SL Green is one of the most critical assets of our organization, and can often be a deciding factor for our tenants to choose us over our competitors. If there were negative publicity of climate related events at our properties due to a lack of resilience, or low quality services delivered due to our climate related technologies we could face significant reputational risk. For our company specifically, the NYC market is extremely competitive and the reputation that we have built in this market has helped us in the past to win large companies with shared value as tenants. We always consider this risk.
Acute physical	Relevant, always included	We are subject to risks associated with natural disasters and the physical effects of climate change, which can include storms, hurricanes and flooding, any of which could have a material adverse effect on our properties, operations and business. For our company specifically, because most of our real estate is located on the island of Manhattan and surrounded by four bodies of water, we are very aware of these types of risks which we were subject to as an example during Super Storm Sandy which resulted in direct acute physical damage to some of our properties. We always consider this risk.
Chronic physical	Relevant, always included	To the extent climate change causes changes in weather patterns, our markets could experience increases in storm intensity and rising sea-levels which could cause damage to our properties, and have a material adverse effect on our business. Over time, climate change conditions could result in declining demand for office space in our buildings or the inability of us to operate the buildings at all. For our company specifically, because most of our real estate is located on the island of Manhattan and surrounded by four bodies of water, we are very aware of these types of risks which we were subject to as an example during Super Storm Sandy when the downtown real estate market was drastically effected by the after effects. We always consider this risk.
Upstream	Relevant, always included	SL Green considers the risk that is caused upstream in its supply chain in all risk assessments. Some company specific examples of risks for SL Green could include disruption of our supply chain of building materials, change in cost of building materials, or disruption to our contracted workforce ability to complete work on time.
Downstream	Relevant, always included	In our downstream portion of our value chain sits our tenants. We are always attempting to mitigate risk which could happen related to climate for our tenants. Among the risks we consider upstream to our tenants are legal, physical, reputation, and regulatory. At SL Green specifically, downstream also relates to the growing trend by our tenants to demand a more sustainable office space including the utilization of climate mitigating technologies, and third-party recognition (such as LEED). We consider the risks downstream both to our tenants, and to the relationships we have with our tenants in every assessment of risk that we do.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

The Board is responsible for overseeing the Company's risk management process and strategy, particularly the most significant risks facing the Company, and ensures that appropriate risk mitigation strategies are implemented by management. The Board focuses on overseeing risks relating to the structure and amount of our debt, including overall aggregate principal balance, variable rate versus fixed rate debt, maturity schedules and balance of secured and unsecured debt.

The Board delegated to the Audit Committee oversight of the Company's risk management process. Among its duties, the Audit Committee reviews with management (a) the Company policies with respect to risk assessment and management of risks that may be material to the Company (including climate-related risks and opportunities), (b) the Company's system of disclosure controls and system of internal controls over financial reporting and (c) the Company's compliance with legal and regulatory requirements (which include climate related regulations).

The Audit Committee also is responsible for reviewing major legislative and regulatory developments that could have a material impact on the Company's contingent liabilities and risks (including climate related risks and opportunities).

Our other Board committees also consider and address risk as they perform their respective committee responsibilities. All committees report to the full Board as appropriate, including when a matter rises to the level of a material or enterprise level risk. In addition, our Compensation Committee considers the risks to the Company's stockholders and to the achievement of our goals that may be inherent in the Company's executive compensation program which are also linked to opportunities related to climate change.

The Company's management is responsible for day-to-day risk management, including the primary monitoring and testing function for company-wide policies and procedures, and management of the day-to-day oversight of the risk management strategy for the ongoing business of the Company. This oversight includes identifying, evaluating, and addressing potential risks that may exist at the enterprise, strategic, financial, operational, and compliance and reporting levels.

Our Executive team and Board have joint oversight of sustainability mission statement and goal setting. The program is communicated through the annual GRI sustainability report, which includes sustainability performance across the portfolio, and is distributed to the Board, investors, tenants, vendor partners and government stakeholders.

We believe the division of risk management responsibilities and related opportunities described above is an effective approach for addressing the risks facing the Company. We proactively analyze climate change risk and resiliency through life cycle assessments from asset acquisition through disposition. We are subject to risks associated with natural disasters and the physical effects of climate change, which can include storms, hurricanes and flooding, any of which could have a material adverse effect on our properties, operations and business. For our company specifically, because most of our real estate is located on the island of Manhattan and surrounded by four bodies of water, we are very aware of these types of risks which we were subject to as an example during Super Storm Sandy which resulted in direct acute physical damage to some of our properties. For example, an acute physical risk specifically incorporated in our risk assessment and decision-making is the proximity of a property to the FEMA 100-year floodplain.

To address climate issues, our team establishes 5 and 10 year capital plans to identify energy saving opportunities. SL Green has spent over $50,000,000 in energy efficiency projects, and has an additional $50,000,000 in projects planned for the next 10 years. Additionally, sustainability performance, energy consumption, technology and resiliency are key performance indicators included in underwrites for asset acquisitions and dispositions. These sustainability performance metrics drive our decision making processes for buying and selling assets, and provide opportunities to engage and position ourselves positively to tenants.

For example, climate change presents a transitional opportunity for SL Green. Changing consumer and investor demands are increasingly driving corporations to seek more from their properties when it comes to climate resiliency, energy efficiency, and other climate related features. By continuing to position ourselves as a market leader providing office space that meets the growing demands of our tenants, we have an opportunity to outcompete our competitors for business, and increase of the value of our assets. This is evident in the lease stipulation from an anchor tenant at SL Green's ground up development, One Vanderbilt. The tenant cited our commitment to achieve LEED as a key factor in their decision to sign a lease.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Increased capital costs (e.g., damage to facilities)

Company- specific description

We are subject to risks associated with natural disasters and the physical effects of climate change, which can include storms, hurricanes and flooding, any of which could have a material adverse effect on our properties, operations and business. The majority of SL Green's properties are located on the island of Manhattan which is surrounded on four sides by water and we therefore have a unique awareness of this risk. The superstorm Sandy was an example of the actual implications of this type of risk.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

1670000

Potential financial impact figure – maximum (currency)

346720000

Explanation of financial impact figure

The potential financial impacts of climate-related weather events on SL Green's portfolio include weather-related damages, projected rent loss, relocation of building equipment and restoration efforts. An example is the estimated flood & wind-related damages from Superstorm Sandy in 2012 amounted to $1,600,000 across our portfolio. Our most damaged property, 180 Maiden Lane, had to undergo robust recovery procedures. These procedures included moving building machinery including electrical switchgear from the basement to the third floor, restoring elevator service, restoring the façade /building envelope, reclamation of the fuel oil tank, debris clean-up, security protocols, and repairing glass which amounted to $17,000,000, largely covered by insurance. To calculate the minimum financial impact, we used the $0.076 psf in wind and flood damages across the portfolio; for maximum financial impact, we used the $15.76 psf for repair costs at 180 Maiden Lane resulting from Superstorm Sandy

Management method
To manage the risk associated with climate-related weather events, our team allocates funds for resiliency and energy efficiency projects, purchases insurance plans, installs generators, and trains building management and security staff on emergency protocol.

Cost of management
100000000

Comment
Cost of management includes historical and future monies allocated for efficiency / resiliency projects, flood insurance premiums, and restoration / recovery work.

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type
Physical risk

Primary climate-related risk driver
Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact
Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

Company- specific description
To the extent climate change causes changes in weather patterns, our markets could experience increases in storm intensity and rising sea-levels. SL Green specifically has an acute awareness of this risk due to most of our properties being on the island of Manhattan which is surrounded by water and prone to the effects of severe weather, such as the example of Super Storm Sandy. Over time, these conditions could result in declining demand for office space in our buildings or interference with building operations.

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
1600000

Potential financial impact figure – maximum (currency)
6448000

Explanation of financial impact figure
The potential financial impacts of climate-related weather events on SL Green's portfolio include weather-related damages, projected rent loss, relocation of building equipment and restoration efforts. An example is the estimated flood- and wind-related damages from Superstorm Sandy amounted to $1,600,000 across our portfolio. In addition, the market for real estate in downtown Manhattan underwent extensive restoration efforts for several years after Superstorm Sandy, which impacted building occupancy and revenue for many property owners. Chronic changes in weather patterns could lead to more of this type of effect. To calculate

the minimum potential financial impact, we calculated the change to our annualized utility cost as a result of only inflation (2%). To calculate the maximum potential financial impact, we used an 8.6% increase in electricity prices based on ConEdison's 2020 rate case.

Management method
To manage the risk associated with climate-related weather events, our team allocates funds for resiliency and energy efficiency projects, purchases insurance plans, installs generators, and trains building management and security staff on emergency protocol.

Cost of management
100000000

Comment
Cost of management includes historical and future monies allocated for efficiency / resiliency projects, flood insurance premiums, and restoration / recovery work.

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type
Transition risk

Primary climate-related risk driver
Technology: Costs to transition to lower emissions technology

Type of financial impact
Costs to adopt/deploy new practices and processes

Company- specific description
Climate change may have an indirect effect on our business by requiring us to expend funds as we seek to repair and protect our properties against such risks. Specifically at SL Green, an operational priority across the company is to reduce our energy consumption by replacing existing technology and implementing new technology.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
11000000

Potential financial impact figure – maximum (currency)
286000000

Explanation of financial impact figure
The portfolio-wide financial impact of making capital investments in energy efficient technology include labor, insurance, removal costs, installation costs, maintenance agreements and construction / demolition fees. Whenever exploring technological opportunities, we bundle all potential costs and will implement technologies if we are net positive after reducing the building's operating expenses and energy consumption. Minimum ($0.50 per square foot) and maximum ($13 per square foot) potential financial impact were calculated referencing retrofit cost values from the Urban Green Council Retrofit Market Analysis.

Management method
SL Green is committed to implementing green building practices throughout the lifecycle of new and existing properties within our portfolio. This commitment includes managing energy consumption, water use, material selection and the building’s effects on its site throughout the planning, design, construction, and operational phases. Portfolio-wide initiatives that have resulted in energy savings include LED retrofits, variable frequency drive installations, steam station insulation and BMS upgrades. We also pursue all available rebates and incentives to drive down the costs of implementing these technologies. The team also continuously evaluates

the newest technologies and meets with vendors throughout the year. We often pilot emerging technologies to evaluate effectiveness before rolling the technology out at a portfolio scale. One example is the real-time energy management platform used to optimize energy use and tenant comfort in subhourly intervals. SL Green has previously evaluated the feasibility of on-site power generation, including solar panels and fuel cells. We will be installing a 1.2 megawatt cogeneration system at our ground-up development, One Vanderbilt, which is projected to achieve one of the lowest carbon footprints across buildings of similar density and scale in New York City. We have invested $17,000,000 in sustainability features at the property that go above and beyond code requirements.

Cost of management
117000000

Comment
Cost of management includes $50,000,000 in historical energy efficiency projects since 2010, $50,000,000 in additional projects spanning the next 10 years, and $17,000,000 in sustainability features that go above and beyond code requirements at One Vanderbilt.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resilience

Primary climate-related opportunity driver
Participation in renewable energy programs and adoption of energy-efficiency measures

Type of financial impact
Increased revenue through new products and services related to ensuring resiliency

Company-specific description
SL Green has the potential to attract more clients, and charge a premium for climate resilient buildings. For example our LEED Strategy across the 9 properties that earned LEED certifications through the LEED Volume program in 2017, we: Implemented LEED Plans and policies through 100% of properties Decreased average water consumption by 24%. Offset 9,200 mtCO2e through wind-power generation. Met sustainable criteria with 75% of janitorial cleaning and paper product purchases. Our LEED Volume efforts reduced energy consumption by 697,708 kWh/year. This is equivalent to 490 metric tons of CO2 avoided per building.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
579000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our construction team determined that building out tenant spaces that have sustainable specs in alignment with LEED have an incremental cost of $5.00 per square foot. That being said, the US Green Building Council has released a study that shows LEED certified building values increased by 10.9% for new construction and 6.8% for existing building projects. Additionally, it is estimated that operating costs decreased by 13.6% for new construction and 8.5% for existing building projects post-LEED certification. Thirdly, a business case study examining the San Diego real estate market showed that the overall vacancy rate for green buildings was 4% lower than for non-green properties—11.7%, compared to 15.7%—and that LEED-certified buildings routinely commanded the highest rents. The potential financial impact figure is calculated with the increase (6.8%) in value of SL Green's commercial real estate assets associated with green building certification.

Strategy to realize opportunity
Due to all of the aforementioned benefits of green building designations, we pursue these opportunities wherever possible. Through an economies of scale process called LEED Volume, we certified 6 properties in 2018. 63% of SL Green's Manhattan Operating Properties across 15 million square feet achieved a LEED Certification in 2018. SL Green has also invested $66 million in energy efficiency across its portfolio and 31.6% of the company's electricity in 2018 was offset by renewable energy certificates.

Cost to realize opportunity
1300000

Comment
Cost to realize opportunity reflects costs to achieve LEED certifications across 15 properties in 2017 and 6 properties in 2018

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of new technologies

Type of financial impact
Returns on investment in low-emission technology

Company-specific description
Our investments in clean technology have resulted in various valuable recognition and ratings for our buildings which result in reputational benefits leading to increased demand for our buildings. For example, SLG has installed a real-time energy management platform across 20.5M square feet to manage building systems and compute valuable diagnostics. The latest evolution of Energy Desk occurred in January 2018 when occupancy sensors were installed across 8 buildings to provide building operators with granular data to adjust space conditions that maximize efficiency and tenant comfort. This will also lower operational costs because building operators will not be excessively heating or cooling spaces. At 11 Madison Avenue, SL Green installed an ice plant in 2018. By producing ice during the night and using it for cooling during the day, the ice plant reduces daytime electricity use. Additionally, the building operators have the option to load shift and run the ice plant during the night. This alleviates the strain on NYC’s electrical grid, and lowers utility costs for the building. This system is projected to cumulatively save $14.3M over 20 years. By alleviating the grid demand during the day, SL Green is also mitigating the need for carbon intensive power plants. The ice plant is projected to reduce the building’s carbon footprint by 1.4M pounds of carbon dioxide.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
6800000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The potential financial impact figure is calculated with the reduction (8.5%) in annual operating costs associated with capital improvements throughout the portfolio. The financial impact of making capital investments in energy efficient technology include labor, insurance, removal costs, installation costs, maintenance agreements and construction / demolition fees. Whenever exploring technological opportunities, we bundle all potential costs and will implement technologies if we are net positive after reducing the building's operating expenses and energy consumption.

Strategy to realize opportunity
Whenever possible, we try to bundle and scale energy efficient technologies across the portfolio. Portfolio-wide initiatives that have resulted in energy savings include LED retrofits, variable frequency drive installations, steam station insulation and BMS upgrades. We also pursue all available rebates and incentives to drive down the costs of implementing these technologies. The team also continuously evaluates the newest technologies and meets with vendors throughout the year. We often pilot emerging technologies to evaluate effectiveness before rolling the technology out at a portfolio scale. An example is we are exploring a fuel cell installation at one of our properties. Additionally, we will be installing a 1.2 megawatt cogeneration system at our ground-up development, One Vanderbilt. One Vanderbilt is projected to achieve one of the lowest carbon footprints across buildings of similar density and scale in New York City. We have invested $17,000,000 in sustainability features at the property that go above and beyond code requirements.

Cost to realize opportunity
117000000

Comment
Cost of management includes $50,000,000 in historical energy efficiency projects since 2010, $50,000,000 in additional projects spanning the next 10 years, and $17,000,000 in sustainability features that go above and beyond code requirements at One Vanderbilt.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of recycling

Type of financial impact
Benefits to workforce management and planning (e.g., improved health and safety, employee satisfaction resulting in lower costs)

Company-specific description
Outlined in the OneNYC Plan, Mayor de Blasio set the ambitious goal of sending zero waste to landfills by 2030. New York City enacted a new recycling law enforced as of August 1, 2017 that mandates source-separated recycling to help meet this goal. At SL Green specifically, we are implementing strategies to ensure that we are in line with this regulation. In 2018, waste audits were performed across all Manhattan Operating Properties to provide both Property Management and tenants with data on contamination rates for recycling and identify areas for improved recycling procedures. As a result of these legislative updates, SL Green became responsible for ensuring compliance across 22M square feet of base building space, janitorial operations and tenant procedures. SLG's sustainability team focused on educational strategies to achieve recycling compliance and drive behavior change. SLG collaborated with the union, SEIU Local 32BJ, to streamline trainings for over 500 cleaning employees. Because there are a variety of languages spoken by our staff, we had all presentation materials translated into several languages. We also color-coordinated liners and sorting areas on the loading dock to facilitate pickups and minimize contamination. To ensure that we are also maintaining training for new and temporary employees, we worked with the union and Alliance Building Services to include the recycling training in on-boarding presentations. Phase two of our educational efforts encompassed on-site trainings for tenant employees across 26 properties that explained the legal requirements and included a hands-on sorting exercise. To reinforce and

disseminate what was learned in the trainings, we distributed presentation materials, a training recording and sample signage to tenants portfolio-wide. As a result of our efforts, over 1,000 people have been educated on recycling best practices. We have created a self-sustaining educational system and have laid the foundation for successful compliance. Additionally, we achieved a 75% recycling rate during the demolition phase of SLG's ground-up development project at One Vanderbilt. Wherever possible we are sourcing material with recycled content, such as the structural steel.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
22000

Potential financial impact figure – maximum (currency)
110000

Explanation of financial impact figure
By getting the portfolio in compliance with Local Law 87, we are avoiding city-issued fines for non-compliance. Additionally, we encourage our tenants to centralize all waste bins and remove under the desk bins. Centralizing waste bins require fewer liners, which also result in less resource consumption and reduced operating costs for tenants. Thirdly, generating a cleaner waste stream that does not contaminate recycled material reduces overall resource consumption if the material can be sufficiently recycled instead of sent to a landfill, which is also a revenue generator for both landlords and haulers. Specifically, we require all tenants to have paper-only bins to avoid contamination by food and liquid. To calculate potential impact, we project $100-$500 in potential fines for non-compliance with the New York City recycling Local Law per building annually.

Strategy to realize opportunity
To start, SLG collaborated with the union, SEIU Local 32BJ to streamline training and education for the cleaners that are employed in our buildings. We created a presentation that would be digestible and understandable for the cleaning staff that are employed throughout the portfolio. Because there are a variety of languages spoken by our cleaning staff, we had all recycling materials that were distributed translated into several languages. We also implemented a color-coordinated liner system and color-coordinated areas on the loading dock for each waste stream to facilitate pick-ups and minimize confusion among our cleaners. Another tool that we implemented for the night cleaners is a compliance notepad. Since the biggest challenge for this law is driving tenant behavior change, we wanted to give the cleaners a tool that would help them track tenant progress and non-compliance. These notepads will track the floor, office number and company of tenants that are not recycling properly so that the property management staff can approach and warn repeat offenders. Not only are we responsible for educating our cleaning staff, but we also educated our tenants on the upcoming law. To start, we developed and distributed a notification letter and FAQ that were emailed to 100,000 tenants that work within SL Green’s buildings. To support tenant compliance, we also sent out a recording of the presentation and sample signage to all tenants.

Cost to realize opportunity
50000

Comment
Cost to post additional signage in loading dock and color-coordinate bin liners in accordance with new regulations is estimated to be around $2000 per building.

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted	SL Green's products and services have been impacted by opportunities related to building efficiency and sustainable property recognitions which are helping to meet customer demand for resilient and sustainable buildings. On the risk side, we have been prone to extreme weather which could cause damage to buildings or make them less attractive to potential tenants. One example is the estimated flood- and wind-related damages from Superstorm Sandy. This amounted to $1,600,000 across of our buildings. Due to location, our most damaged property, 180 Maiden Lane, had to undergo robust recovery procedures. These procedures included moving building machinery from the basement to the third floor, restoring elevator service, restoring the façade / building envelope, reclamation of the fuel oil tank, debris clean-up, security protocols, and repairing glass / doors which amounted to over $17,000,000.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	SL Green's supply chain has been impacted on the risk side by issues related to climate change affecting supply chain management through higher costs and less availability of materials needed for our buildings, which we witnessed during Super Storm Sandy. On the opportunity side, up the value chain we have observed positive impacts working with our tenants to improve energy data sharing, recycling and working on climate-related awareness programs through stronger relationships with our tenants, positive competitive positioning, and increased value of our rent and buildings. For example, we have also been awarded the #1 Most Sustainable REIT by Real Estate Finance & Investment (2017 & 2018). In recognition of its operational excellence, the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) awarded SL Green the prestigious 2018 Partner of the Year—Sustained Excellence award. Only 1% of 16,000 EPA partners achieve Partner of the Year, distinguishing SL Green as a leader. In addition, we have obtained the highest scoring ESG Disclosure score for REITs on Bloomberg, top 90th percentile ESG scores for the industry on Reuters, Top Scoring REIT in MSCI's Opportunities in Green Buildings section, and 38th highest scoring of 328 industry peers on Sustainalytics. These types of recognition have helped to increase the value of our relationships up the value chain with our tenants.
Adaptation and mitigation activities	Impacted	SL Green's investments in Adaptation and Mitigation activities have had an opportunity impact on the attractiveness of our buildings to potential tenants through alignment with their growing demand for more sustainable office space. Our investments in clean technology have resulted in various valuable recognition and ratings for our buildings which result in reputational benefits leading to increased demand for our buildings. For example, SLG has installed a real-time energy management platform across 20.5M square feet to manage building systems and compute valuable diagnostics. The latest evolution of Energy Desk occurred in January 2017, when the need to track GHG emissions arose to facilitate both our own and our tenants' participation in the Carbon Challenge. Facilitating data transparency with tenants through Energy Desk is critical in achieving meaningful reductions. This effort was awarded Business Intelligence Group's "2017 Sustainability Award" and the Institute of Real Estate Management's "Corporate Innovation" REME Award in recognition of this cutting-edge platform. Our construction team determined that building out tenant spaces that have sustainable specs in alignment with LEED have an incremental cost of $5.00 per square foot. That being said, the US Green Building Council has released a study that shows LEED certified building values increased by 10.9% for new construction and 6.8% for existing building projects. Additionally, it is estimated that operating costs decreased by 13.6% for new construction and 8.5% for existing building projects post-LEED certification On the risk side, to mitigate against climate-related weather events, we are covered under insurance policies of $2.65 billion annually. We have seen rises in our insurance rates in some areas like downtown Manhattan due to climate-related issues such as being located in possible flood zones. On the opportunity side, we have also seen decreases in insurance rates when we implement certain climate-related resiliency features into our buildings. The total cost of management of $117,000,000 includes $50,000,000 in historical energy efficiency projects since 2010, $50,000,000 in additional projects spanning the next 10 years, and $17,000,000 in sustainability features that go above and beyond code requirements at One Vanderbilt.
Investment in R&D	Impacted	SL Green has realized opportunities through the research and implementation of climate-related technologies in our buildings. The financial impact of making capital investments in energy efficient technology have included labor, insurance, removal costs, installation costs, maintenance agreements and construction / demolition fees. When we explore technological opportunities at SL Green, we bundle all potential costs. We then implement technologies only if we are net positive after reducing the building's operating expenses and energy consumption. Portfolio-wide initiatives that have resulted in energy savings include LED retrofits, variable frequency drive installations, steam station insulation and BMS upgrades. We also pursue all available rebates and incentives to drive down the costs of implementing these technologies. The team also continuously evaluates the newest technologies and meets with vendors throughout the year. We often pilot emerging technologies to evaluate effectiveness before rolling the technology out at a portfolio scale. Another example is that we are exploring a fuel cell installation at one of our properties. Additionally, we will be installing a 1.2 megawatt cogeneration system at our ground-up development, One Vanderbilt. One Vanderbilt is projected to achieve one of the lowest carbon footprints across buildings of similar density and scale in New York City. We have invested $17,000,000 in R&D and implementation of sustainability features at the property that go above and beyond code requirements.
Operations	Impacted	SL Green's business has been impacted at our operations level in many ways by climate related issues. Climate related issues play a critical role throughout the operations at SL Green and we always consider these issues in our risk assessments, from asset acquisition through disposition and all operations. Specifically at SL Green, an operational priority across the company is to reduce our energy consumption by replacing existing technology and exploring new technology. Another example is our investments and actions to align with Mayor de Blasio's OneNYC Plan which set the ambitious goal of sending zero waste to landfills by 2030. A new recycling law enacted by NYC was enforced as of August 1, 2017 that mandates source-separated recycling to help meet this goal. At SL Green specifically, we are implementing strategies to ensure that we are in line with this regulation. Investing in our operations to get SL Green's portfolio in compliance with Local Law 87 helped us to avoid city-issued fines for non-compliance. We encourage our tenants to centralize all waste bins and remove under the desk bins. Centralizing waste bins require fewer liners, which also result in less resource consumption and reduced operating costs for tenants. Generating a cleaner waste stream that does not contaminate recycled material reduces overall resource consumption if the material can be sufficiently recycled instead of sent to a landfill, which is also a revenue generator for both landlords and haulers. The cost to realize this opportunity was around $50,000 invested. In 2019, New York City passed Local Law 97 of 2019. This law requires buildings greater than 25,000 square feet to cut their emissions 40% by 2030, and 80% by 2050, relative to a 2005 baseline, in alignment with a 2 degree Celsius climate scenario. SL Green's Engineering team is encouraged to take ongoing education courses to ensure they are informed on best practices to optimize building operational performance. SL Green also hosts quarterly training sessions for building engineers.
Other, please specify	Please select	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	Climate-related weather events can be a risk associated with SLG's revenue since these events can potentially damage our assets. In some cases, such as Superstorm Sandy, we can potentially lose tenant rent if the building is compromised. Energy efficiency is an opportunity for SL Green's revenue because by having best-in-class systems and green building designations, the resale value of our assets increases. The magnitude of this impact has been Medium-low.
Operating costs	Impacted	Energy represents 25-30% of the total operating costs for SL Green's buildings. To mitigate against price fluctuations in energy, we lock in our energy costs through procurement 2 to 3 years in advance. These fluctuations occur due to climate-related weather events and resource availability. We pursue energy efficiency projects and green building designations to lower our energy consumption, therefore lowering overall operating expenses for both the base building and for our tenants. The magnitude of this impact has been Medium-high.
Capital expenditures / capital allocation	Impacted	To mitigate against climate risk, our team develops 5- and 10-year capital plans that increase both energy efficiency and resiliency across our entire portfolio. Our engineering, operations and sustainability teams collaborate to map out projects for the next 5- and 10-years that are in alignment with SL Green's GHG emission intensity goal and NYC's GHG emission reduction goal. Capital planning and allocation is key in our strategy to achieve meaningful reductions. Capital allocation also facilitates the opportunity to invest in emerging green technologies, including fuel cells and cogeneration. The magnitude of this impact has been Medium.
Acquisitions and divestments	Impacted for some suppliers, facilities, or product lines	SL Green's team incorporates climate-risk in underwrites and decision making surrounding asset acquisition and deposition. Our underwriting team will flag properties if they are vulnerable to climate-related weather events (i.e., located in a flood zone). 5-year capital plans are created for every potential acquisition to ensure the property is positioned to be resilient and energy efficient. We evaluate the energy performance of every asset, both current and potential. Additionally, the efficiency of installed building systems are factored into decision-making and capital-planning, and green building designations are noted. The magnitude of this impact has been Medium.
Access to capital	Impacted for some suppliers, facilities, or product lines	To mitigate against climate risk, our team develops 5- and 10-year capital plans that increase both energy efficiency and resiliency across our entire portfolio. Our engineering, operations and sustainability teams collaborate to map out projects for the next 5- and 10-years for each building that are in alignment with SL Green's GHG emission intensity goal and NYC's GHG emission reduction goal. Capital planning and allocation is key in our strategy to achieve meaningful reductions. Access to capital also facilitates the opportunity to invest in emerging green technologies, including fuel cells and cogeneration. The magnitude of this impact has been Medium.
Assets	Impacted	Climate-related weather events can be a risk associated with SLG's revenue since these events can potentially damage our assets. In some cases, such as Superstorm Sandy, we incurred $17M of damage at a single property. We also capitalize on climate-related opportunities at our assets as we implement energy efficiency projects as an opportunity to reduce overall operating expenses and increase the resale value of our assets. Pursuing innovative technologies, efficient building systems and green building designations also increase the value of our assets. The magnitude of this impact has been Medium.
Liabilities	Impacted for some suppliers, facilities, or product lines	Climate-related weather events can be considered a liability since these events can potentially damage our assets. To manage this liability, SL Green has portfolio-wide flood, wind and earthquake insurance policies which amounts to $2.65 billion annually. Additionally, our building staff is trained on emergency response protocol to mitigate potential liability. To manage the risk associated with climate-related weather events, our team allocates funds for resiliency and energy efficiency projects, purchases insurance plans, installs generators, and trains building management and security staff on emergency protocol. The magnitude of this impact has been Medium.
Other	Please select	

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

Yes, qualitative

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

To address climate issues, our team establishes 5 and 10 year capital plans to identify energy saving opportunities. To date, SL Green has spent over $50,000,000 in energy efficiency projects, and have an additional $50,000,000 in projects planned for the next 10 years. Additionally, sustainability performance, energy consumption, technology and resiliency are key performance indicators included in underwrites for asset acquisitions and dispositions. These sustainability performance metrics drive our decision making processes for buying and selling assets.

As New York City's largest commercial landlord, we recognize our responsibility to operate efficiently and minimize our carbon footprint. Mayor de Blasio's citywide goal of an 80% reduction in GHG emissions by 2050 (80x50) drives our operational, acquisitions and construction decisions. Positioning our portfolio to be alignment with these goals is an organizational priority.

Energy performance is also at the forefront of our decision making when it comes to implementing new technologies, and/or replacing existing equipment. Our team constantly meets with innovative vendors and explores emerging technologies to reduce our energy consumption. Examples include fuel cells, cogeneration, variable frequency drives, and BMS installation.

C3.1d

(C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios	Details
2DS	Sustainability performance, energy consumption, technology and resiliency are key performance indicators related to climate-change that are included in SL Green's underwriting process for asset acquisitions, dispositions, and any other investment opportunities. These sustainability performance metrics including climate-related scenarios drive our decision-making processes for buying and selling assets. For example, our management team is less likely to purchase buildings that are vulnerable to climate-related weather events. To further mitigate against climate-related risks, 5- and 10-year capital plans are developed incorporating climate-related scenarios with the goal of improving building resiliency and energy performance. Another example is that Mayor de Blasio has taken a strong stance on climate action. Globally, the Mayor pledged that New York City would uphold the Paris Climate Accord and locally, he has set the ambitious goal of reducing citywide greenhouse gas emissions 80% by 2050. To achieve meaningful reductions, the New York City Climate Mobilization Act was passed, which would cap whole building GHG emissions to achieve a citywide 80% reduction in GHG emissions by 2050, in alignment with a 2-degree scenario. SL Green analyzed the impact of a carbon cap across our portfolio, from 2019 through 2050. Inputs included historical electricity, fuel oil, natural gas, and district steam consumption. Assumptions include emission factors that reflect New York City's current energy supply composition, consistent with the IPCC AR4 100 year impact. Annual GHG emissions were calculated using projected energy consumption multiplied by the applicable emissions factors. One scenario included the changes in portfolio emissions due to 100% renewable energy usage and the associated cost. The results of the scenario analysis were communicated to the Board of Directors and executive team. An example of how the results of the scenario analysis influenced business strategy is energy procurement, which has evolved to consider factors beyond price alone, including associated carbon emissions and geographical location of the energy resource. Additionally, buildings that could exceed these GHG caps in our scenarios have been flagged and earmarked for requiring additional investments in energy efficiency projects. SL Green's team also conducts an ongoing scenario analysis to determine the impact of this climate legislation and possible future legislation across all of our assets considering a high regulations scenario, and a lower regulations scenario. The 2 degree Celsius climate scenario informs SL Green's carbon reduction goals.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Scope
Scope 1+2 (location-based) +3 (downstream)

% emissions in Scope
100

Targeted % reduction from base year
30

Metric
Metric tons CO2e per square foot*

Base year
2012

Start year
2017

Normalized base year emissions covered by target (metric tons CO2e)
0.009302173

Target year
2025

Is this a science-based target?
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science Based Targets initiative

% of target achieved
71

Target status
Underway

Please explain
Our target is set for a 30% intensity reduction in Scope 1+2+3 CO2e per square foot, with a baseline of 2012, and a target year of 2025.

% change anticipated in absolute Scope 1+2 emissions
30

% change anticipated in absolute Scope 3 emissions
30

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	5	1464
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative type
Energy efficiency: Building services

Description of initiative
HVAC

Estimated annual CO2e savings (metric tonnes CO2e)
1239

Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1410399

Investment required (unit currency – as specified in C0.4)
8354254

Payback period
4 - 10 years

Estimated lifetime of the initiative
11-15 years

Comment
Includes central plant upgrade, steam station controls, pumps, valves, and dampers.

Initiative type
Energy efficiency: Building services

Description of initiative
Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)
62

Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
48322

Investment required (unit currency – as specified in C0.4)
166399

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
VFD Installation

Initiative type
Energy efficiency: Building services

Description of initiative
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
66

Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
49959

Investment required (unit currency – as specified in C0.4)
133865

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
While most of the portfolio has already completed LED Lighting retrofits, SL Green is continuing to retrofit lighting in the few spaces that were unable to be included in previous retrofits on a rolling basis.

Initiative type
Energy efficiency: Building services

Description of initiative
Building controls

Estimated annual CO2e savings (metric tonnes CO2e)
30

Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
23850

Investment required (unit currency – as specified in C0.4)
112726

Payback period
4 - 10 years

Estimated lifetime of the initiative
6-10 years

Comment
Installation of Building Management System in new asset.

Initiative type
Energy efficiency: Building services

Description of initiative
Other, please specify (Hot Water Heater Replacement)

Estimated annual CO2e savings (metric tonnes CO2e)
67

Scope
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
31892

Investment required (unit currency – as specified in C0.4)
84596

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	SL Green is committed to environmentally sustainable initiatives and innovation that deliver energy and natural resource efficiency. We continue to introduce a broad platform of market-leading initiatives to address energy usage and natural resource consumption that deliver value for our business, tenants and community. To optimize the efficiency performance of the portfolio, 5- and 10-year capital plans are developed incorporating climate-related scenarios with the goal of improving building resiliency and energy performance. SL Green has invested over $66 million to date in energy efficiency projects including HVAC, BMS, and lighting upgrades. SL Green's team conducts an ongoing scenario analyses to determine the impact of New York City's climate legislation (Local Law 97 of 2019) and possible future legislation across all of its assets considering both a high and low regulations scenario. Buildings that could exceed the carbon caps under Local Law 97 have been flagged and earmarked for requiring additional investments in energy efficiency projects.
Compliance with regulatory requirements/standards	SL Green has had zero incidents of regulatory non-compliance in 2017 and 2018. 100% of SL Green's portfolio is in compliance with New York City's Local Law 84, which requires that building energy and water consumption data be submitted to the Department of Buildings on an annual basis. 100% of SL Green's portfolio is also in compliance with Local Law 87, which requires that buildings undergo retro commissioning every ten years. To address the newest climate legislation passed by New York City, SL Green contributes to the 80x50 Buildings Partnership, a collaborative effort from New York City's leading building and energy stakeholders to develop a policy framework that reduces citywide emissions. In tandem with this effort, SL Green crafted climate policy alongside the Real Estate Board of New York's Sustainability Committee and participated in the Mayor's Office of Sustainability's 80x50 technical working group.
Employee engagement	SL Green's environmental policies, including those pertaining to vendors and procurement processes, are available to employees throughout our organization. The Facility Managers and Chief Engineers of each of our properties are stewards of SLG's corporate strategy in this area, and work closely with tenants, vendors, and other stakeholders to meet the Company's goals for recycled, responsibly sourced and non-toxic material procurement. Over 100 Property Management and Engineering staff received sustainability training in 2018. These trainings covered responsible material purchases, energy performance, the LEED certification, and ENERGY STAR labels.
Internal incentives/recognition programs	SL Green's Portfolio Managers, Underwriting, and Leasing teams receive monetary incentives for sustainability performance. SL Green's night supervisors also receive monetary incentives for zero incidents of non-compliance with New York City's recycling laws under Local Law 87. Additionally, SL Green holds an annual award ceremony for its Chief Engineers to recognize the buildings that achieve meaningful carbon reductions and ENERGY STAR labels.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

No

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2012

Base year end
December 31 2012

Base year emissions (metric tons CO2e)
27925

Comment

Scope 2 (location-based)

Base year start
January 1 2012

Base year end
December 31 2012

Base year emissions (metric tons CO2e)
101332

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
10346

Start date
January 1 2018

End date
December 31 2018

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
9260.85

Start date
January 1 2017

End date
December 31 2017

Comment

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
8813.4

Start date
January 1 2016

End date
December 31 2016

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
94323

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2018

End date
December 31 2018

Comment
The Scope 2 emissions reported in C6.3 do not include the emissions reduction from our purchase of RECs.

Past year 1

Scope 2, location-based
88708.78

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2017

End date
December 31 2017

Comment
The Scope 2 emissions reported in C6.3 do not include the emissions reduction from our purchase of RECs.

Past year 2

Scope 2, location-based
104486

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2016

End date
December 31 2016

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Capital goods

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Upstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Waste generated in operations

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation

Business travel

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Employee commuting

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Use of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Downstream leased assets

Evaluation status
Relevant, calculated

Metric tonnes CO2e
49616

Emissions calculation methodology
Energy consumption outside of the organization was considered tenant energy consumption, as property management has no oversight on the energy consumption practices of tenants, other than energy efficiency requirements during design and construction. This data has been gathered from submeter vendors, as all properties must have tenants submetered in accordance with LL87: NYC Energy Conservation Code (NYCECC).

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Explanation

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
None of the criteria (size, influence, risk, stakeholders, outsourcing, etc.) deemed as relevant under the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” criteria of “sector guidance” as defined in Table 6.1 based are met by this scope 3 category when considering SL Green's operations.

Other (upstream)

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation

Other (downstream)

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.005

Metric numerator (Gross global combined Scope 1 and 2 emissions)

104669

Metric denominator

square foot

Metric denominator: Unit total

21140794

Scope 2 figure used

Location-based

% change from previous year

8

Direction of change

Increased

Reason for change

Changes in weather conditions increased the amount of energy consumed for space heating and cooling in 2018, when compared to 2017. As a result, associated Scope 1+2 emissions increased accordingly. In New York, Cooling Degree Days (CDD), a measurement of cooling load, increased 18% from 1,429 CDD in 2017 to 1688 CDD in 2018; similarly, Heating Degree Days (HDD), a measurement of heating load, increased 13% from 3,996 HDD in 2017 to 4,511 HDD in 2018. Data Source: https://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Weather-Data/Monthly-Cooling-and-Heating-Degree-Day-Data

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	6825	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	3521	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Other, please specify (New York)	7258
Other, please specify (Connecticut)	3088

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Manhattan	5036
Reckson	5310

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Other, please specify (New York)	88904	0	353656	50963
Other, please specify (Connecticut)	5419	0	20742	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Manhattan	87160	0
Reckson	7163	0

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	
Other emissions reduction activities	1464	Decreased	1.49	Energy efficiency projects ranging from VFD installation, LED lighting retrofits to steam station controls combine to save 2,235,378 kWh of electricity and 12,696,000 lbs of steam. The result were a GHG reduction of 1,464 metric tons of CO2e. The Scope 1+2 emissions of the previous year was 97,970 tons. 1.49% = 1464/97,970
Divestment	1495	Decreased	1.53	Divestment of six King Street properties reduced reported 2018 Scope 1+2 emissions by 1495 tons. The Scope 1+2 emissions of the previous year were 97,970 tons. 1.53% = 1495/97,970
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	0	No change	0	
Change in methodology	0	No change	0	
Change in boundary	519.5	Increased	5.3	The inclusion of 110 Greene Street, a stabilized asset, has increased our Scope 1+2 emissions by 519.5 tons. The Scope 1+2 emissions of the previous year were 97,970 tons. 5.30% = 519.5/97,970
Change in physical operating conditions	9138.5	Increased	9.33	Changes in weather conditions increased the amount of energy consumed for space heating and cooling in 2018, when compared to 2017. In New York, Cooling Degree Days (CDD), a measurement of cooling load, increased 18% from 1,429 CDD in 2017 to 1688 CDD in 2018; similarly, Heating Degree Days (HDD), a measurement of heating load, increased 13% from 3,996 HDD in 2017 to 4,511 HDD in 2018. Data Source: https://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Weather-Data/Monthly-Cooling-and-Heating-Degree-Day-Data The Scope 1+2 emissions of the previous year was 97,970 tons. 9.33% = 9138.5/97,970
Unidentified	0	No change	0	
Other	0	No change	0	

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 25% but less than or equal to 30%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)		37479	37479
Consumption of purchased or acquired electricity	<Not Applicable>	50963	110350	161313
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>		213085	213085
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>		<Not Applicable>	
Total energy consumption	<Not Applicable>	50963	360914	411877

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
34903

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

Fuels (excluding feedstocks)
Fuel Oil Number 2

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
2576

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Fuel Oil Number 2

Emission factor
73.96

Unit
kg CO2 per million Btu

Emission factor source
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

Comment

Natural Gas

Emission factor
53.06

Unit
kg CO2 per million Btu

Emission factor source
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

Comment

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	0	0	0	50963
Heat	37479	37479	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor
Energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type
Solar PV
Wind
Hydropower
Biomass (including biogas)

Region of consumption of low-carbon electricity, heat, steam or cooling
North America

MWh consumed associated with low-carbon electricity, heat, steam or cooling
50963

Emission factor (in units of metric tons CO2e per MWh)
0

Comment

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
SL_Green_2019_Letter_of_Assurance.pdf

Page/ section reference
All

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
SL_Green_2019_Letter_of_Assurance.pdf

Page/ section reference
All

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope
Scope 3- at least one applicable category

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Attach the statement
SL_Green_2019_Letter_of_Assurance.pdf

Page/section reference
All

Relevant standard
ISO14064-3

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Renewable energy products	ISO 14064-3	Sustainable Investment Group (SIG) has conducted a thorough, comprehensive, third party review of the SL Green's 2019 Environmental Performance Summary reported on the Sustainability section of the corporate website. The scope of our review included a review of the water and energy consumption, waste and diversion, and GHG emissions from SL Green's Office Manhattan and Suburban office properties, including Scope 1, 2, and 3 emissions. The scope was comprised of two specific parts: * Collection of data to assess energy, water, waste, and emissions * A review to determine whether the process followed the methodology described in ISO 14064-3: 2019, and * A review to determine whether any measurement of the Environmental Performance Data is faulty. SL_Green_2019_Letter_of_Assurance.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase
Credit purchase

Project type
Landfill gas

Project identification
SL Green purchased carbon offsets created by landfill gas projects (4 sites) in the United states which offset 11,537 metric tons of CO2e Scope 1 emissions. All Scope 1 emissions reported do not include these purchased carbon offsets.

Verified to which standard
CAR (The Climate Action Reserve)

Number of credits (metric tonnes CO2e)
11537

Number of credits (metric tonnes CO2e): Risk adjusted volume
11537

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

C11.3

(C11.3) Does your organization use an internal price on carbon?
No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Compliance & onboarding

Details of engagement
Included climate change in supplier selection / management mechanism
Climate change is integrated into supplier evaluation processes

% of suppliers by number
45

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5
0

Rationale for the coverage of your engagement
SL Green recognizes that a significant portion of our company's environmental footprint exists within our supply chain, which includes vendors of supplies and services as well as contractors. SL Green and its properties are subject to a wide range of environmental codes and regulations. We are committed to selecting and working with suppliers that exemplify transparency and comply with all applicable federal, state and municipal standards and regulations regarding environmental issues in all of the jurisdictions where they operate. Environmental compliance is required in in all of our vendor contracts and we seek to implement and to ensure this compliance through regular engagement and monitoring.

Impact of engagement, including measures of success
SL Green seeks to partner with qualified vendors and to collaborate with tenants to reduce the demand on virgin resources, reuse and recycle durable materials, and reduce the source of indoor air contaminants. As part of our green procurement policy and process, SL Green is committed to partnering with our vendors to reduce their environmental impact wherever possible. Our vendors are expected to procure LEED-compliant materials, including environmentally preferable deicers and construction materials, and green cleaning products. SL Green is committed to cover 50% of its suppliers under external certifications, including IS0 14001 or Organic. SL Green aims to reduce the exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological, and particle contaminants which could adversely impact air quality, health, building finishes, building systems, and the environment. External certification is a cornerstone of our procurement policy, which seeks to purchase products and services that adhere to a variety of standards such as those designated by the Forest Stewardship Council, ENERGY STAR, Green Seal and the CRI Green Label. SL Green is committed to driving resource efficiency through systematically considering prospective suppliers' environmental performance during the procurement process and the contract period. Vendors that are not compliant are re-evaluated for use in our portfolio.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement
Education/information sharing

Details of engagement
Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number
100

% Scope 3 emissions as reported in C6.5
100

Please explain the rationale for selecting this group of customers and scope of engagement
SL Green is committed to protecting the environment surrounding each of our properties and the local communities where we operate. This includes minimizing our impact by reducing the consumption of energy, water, waste consumption, and natural resources, and promoting environmental responsibility in collaboration with our tenants, employees and contractors. SL Green is committed to supporting our tenants' environmental goals through collaborative opportunities, education, and outreach. SL Green ensures its data is transparent and our operational policies throughout the portfolio are aligned with the highest sustainability standards. SLG's team is positioned to assist tenants pursue LEED and WELL certifications, and qualify for government rebate programs. SL Green disseminates sustainability knowledge to tenants through webinars, lobby events, and marketing material. A 2018 initiative was engaging 5 of SL Green's tenants in NYSERDA's Commercial Tenant Program, which offers tenants a free energy audit of their office space to identify and implement energy saving projects. Since tenants are responsible for consuming about 60% of a building's energy, SL Green understands that this partnership is essential in achieving meaningful carbon reductions.

Impact of engagement, including measures of success
SL Green calculates Scope 3 emissions based on tenant energy consumption on an annual basis. To lower Scope 3 emissions, energy saving tips were distributed to the 1,200 tenant companies that work throughout SL Green's portfolio in 2018. Additionally, over 100,000 tenants were encouraged to participate in Earth Hour alongside SL Green by powering down non-essential lighting and equipment to save energy in March 2018. SL Green also engaged 5 tenants to conduct an energy audit of their space through NYSERDA's Commercial Tenant Program and has doubled this engagement goal for 2019. In 2018, SL Green supplied data for 7 tenants to support corporate reporting mandates, including KPMG and UN Women. By achieving LEED Gold at 220 East 42nd at the base building level and by implementing green policies and procedures, SL Green was able to contribute one third of the points required for UN Women to achieve a LEED certification in their office space in 2018.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers
Trade associations
Funding research organizations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support with minor exceptions	SL Green contributes to the 80x50 Buildings Partnership, a collaborative effort from New York City's leading building and energy stakeholders to develop a policy framework that reduces citywide emissions. In tandem with this effort, SL Green crafted climate policy alongside the Real Estate Board of New York's Sustainability Committee and participated in the Mayor's Office of Sustainability's 80x50 technical working group.	Reduce city GHG emissions 80% by 2050 (known as 80x50).

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Local SEIU 32BJ

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The union supports the Mayor's greenhouse gas reduction policy, Local Law 97 of 2019.

How have you influenced, or are you attempting to influence their position?

We are aligned with Local SEIU 32BJ's position to support the New York City Mayor's carbon reduction goals. We jointly participate in working groups and council member debriefs which help to advance the agenda.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

At SL Green all direct and indirect activities that influence policy are reviewed and approved by our COO to ensure that they are consistent with our overall climate change strategy. Furthermore, all activities including climate-related goal-setting, progress. reporting, marketing, and day-to-day operations are reported from the COO to the CEO and Chairman of the Board. SL Green's political engagement activities are aligned with the Company's overall climate change strategy. Specifically, SL Green's Sustainability Team participates on Urban Green Council's 80x50 Building Partnership and the New York City Mayor's Office of Sustainability's Carbon Challenge Working Group to express public support and work towards the shared goal of reducing New York City's carbon emissions 80% by 2050. SL Green was a contributor and signatory on the Urban Green Council "Blueprint for Efficiency" report, which outlined a roadmap to advise the New York City government on how to achieve its carbon reduction goal.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In voluntary sustainability report

Status
Complete

Attach the document
SL_Green_2019_Environmental_Performance_Summary.pdf

Page/Section reference
1

Content elements
Emissions figures
Emission targets

Comment

C14. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Operating Officer (COO)	Chief Operating Officer (COO)

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors

Please confirm below
I have read and accept the applicable Terms