



UN context: Sustainable consumption and production is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and a better quality of life for all. Its implementation helps to achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty.

South African context: With a predominantly fossil fuel intensive energy supply and an abundance of sunshine, solar power should be a given in South Africa but cost and policy uncertainty hamper development. As a water-scarce country, the management of this critical resource must be a priority.

Our approach

Although Liberty is not a significant consumer of natural resources, we are cognisant of the role we play as a responsible corporate citizen.

We focus on reducing our contribution to climate change and water conservation and efficiency. Our environmental impact is greatest in our property portfolio. Managing efficiencies in these buildings is in the best interest of our business, our tenants and third-parties. While we manage the general supply of electricity and water, and waste management on behalf of our tenants, they are responsible for their consumption and in certain instances provide for their own backup of electricity through the use of generators

From an environmental perspective, we focus on reducing our electricity consumption primarily through efficiency initiatives and solar photovoltaic (PV) solutions, reducing operating costs over the long term. We also strive to lower our water consumption – specifically in South Africa, a water-scarce country. We achieve this through the implementation of our water strategy, which includes components of broader societal water awareness, acknowledging that water is a shared resource and that we need to work together to increase our resilience to water shortages.

Liberty's contribution to responsible consumption and production

<p>CDP climate change participation (B SCORE)</p>	<p>Grey water system</p>
<p>NightWatchman (ENERGY SAVING) SOFTWARE</p>	<p>Rainwater harvesting</p>
<p>Solar energy projects</p>	<p>Water storage tanks</p>
<p>Monitored recycling project</p>	



In our 2017 report to society we reported on several projects that were in progress. The table below provides details of our progress in 2018.

Our promise	Our progress
Introduction of night-watchmen software (energy-saving tool)	The project saves R700 000 annually in electricity costs just by shutting down 2 500 desktop computers after hours (evenings and weekends).
Water resilience and efficiency storage tanks	Implemented at Eastgate Shopping Centre, Liberty Promenade Mall and Liberty Centre Century City. We received the Cornet Global Innovation Award and Eco-Logic Award for the Liberty Centre Braamfontein project
Green Building Council Existing Building Performance (EBP) ratings	GBCSA EBP 4-star green rating certification received for Liberty Centre Century City and Umhlanga Ridge regional offices. Sandton City and Nelson Mandela Square were registered in December 2018.
Solar PV panels at our Braamfontein head office	The project was completed six weeks ahead of schedule. The project's return on investment period will be four to five years and aims to take Liberty parkade off the grid entirely.
Solar PV panels at Midlands Mall phase 3	The project is on schedule and all solar PV panels have been installed
Implementation of findings from our building water balances	Water balancing was used in our water conservation work, such as water storage tanks, and informs our water strategy

Energy consumption and carbon footprint

Our electricity is sourced from the national grid, of which the majority is generated from non-renewable carbon intensive resources. Increases in the cost of electricity in recent years, with further increases anticipated, present a cost increase concern. During 2018, we invested in solar PV panels at our head office in Braamfontein and Midlands Mall phase 3. The Braamfontein panels reduced electricity consumption by 234MWh in just three months. The Midland Mall project will go live in 2019



We participated in the CDP Climate Change questionnaire and achieved an improved B score (2017: C). There are challenging areas in reducing our carbon footprint but we continue to work towards our goal of alignment with the SDGs. Formal carbon reduction targets are necessary to improve our score and we are currently investigating adopting science-based targets in the absence of a formal methodology for the financial sector.

Liberty consumed 34 299 MWh⁽¹⁾ (2017: 27 435MWh) of electricity at the properties we occupied, both owned and leased. The increase in electricity consumption is attributed to enhanced data collection from online metering systems.

Liberty's electricity consumption

Megawatt hours (MWh)	2018	2017	2016	2015	2014
Liberty's electricity consumption in owned and occupied properties ⁽¹⁾	30 741	23 776	28 949	22 580	31 038
Liberty's electricity consumption in leased properties ⁽²⁾	3 558	3 659	3 925	9 969	2 015
Tenants' electricity consumption in shopping centres ⁽³⁾	191 567	190 949	193 289	195 096	259 197
Tenants' electricity consumption in offices ⁽⁴⁾	12 314	13 155	16 356	28 181	22 033

⁽¹⁾ 171 Katherine Street, Liberty Centre Braamfontein, Liberty Centre Century City, Liberty Parkade, Libridge, Umhlanga Ridge, Eastgate Shopping Centre, STANLIB Melrose Arch.

⁽²⁾ We currently report electricity consumption for 40 of our 48 leased buildings. We do not have access to electricity consumption information at the other eight buildings.

⁽³⁾ Botshabelo Mall, Eastgate Shopping Centre, Liberty Midlands Mall, Liberty Promenade Mitchell's Plain, Nelson Mandela Square, Sandton City.

⁽⁴⁾ 171 Katherine Street, Liberty Centre Century City, Liberty Gardens, Liberty 2 Degrees in STANLIB Melrose Arch.



Energy consumption and carbon footprint continued

We report our carbon footprint for the group's South African operations, which represent approximately 95% (2017: 95%) of our operations in terms of revenue.

Liberty's South African carbon footprint

Tonnes Carbon Dioxide equivalent (tCO ₂ e ⁽¹⁾)	2018	2017	2016	2015	2014
Scope 1 direct CO₂ emissions⁽²⁾	1 730⁽³⁾	1 825⁽³⁾	2 270⁽³⁾	2 772⁽³⁾	2 510⁽³⁾
Stationary fuel used in equipment owned or controlled (e.g. generators)	196	252	397	1 080	886
Fugitive emissions from air-conditioning and refrigeration gas refills	81	-	226	0,35	-
Mobile combustion from vehicle fleet consumption	1 453	1 574	1 647	1 692	1 624
Scope 2 indirect CO₂ emissions⁽³⁾	32 584⁽³⁾	26 886⁽³⁾	32 874⁽³⁾	32 875⁽³⁾	40 224⁽³⁾
Purchased electricity in Liberty-owned and occupied buildings	29 204	23 300	28 949	22 805	31 038
Purchased electricity in leased and occupied buildings	3 380	3 585	3 925	10 069	9 186
Scope 3 total indirect CO₂ emissions, including tenants' electricity	203 793	215 212	227 578		
Scope 3 total indirect CO₂ emissions, excluding tenants' electricity⁽⁴⁾	15 214⁽³⁾	15 188⁽³⁾	17 933	14 303	14 312
Business travel in commercial airlines	3 880 ⁽³⁾	4 173 ⁽³⁾	4 725 ⁽³⁾	5 373 ⁽³⁾	4 350 ⁽³⁾
Business travel in rental cars and transfers	70 ⁽³⁾	101 ⁽³⁾	117 ⁽³⁾	134 ⁽³⁾	99 ⁽³⁾
Hotel accommodation	566 ⁽³⁾	185 ⁽³⁾	175 ⁽³⁾	167 ⁽³⁾	176 ⁽³⁾
Employee travel claims	1 131 ⁽³⁾	1 236 ⁽³⁾	1 293 ⁽³⁾	1 301 ⁽³⁾	1 759 ⁽³⁾
Paper consumption	203 ⁽³⁾	294 ⁽³⁾	251	220	239
Waste to landfill ⁽⁵⁾	6 352 ⁽³⁾	6 778 ⁽³⁾	8 119 ⁽³⁾	7 052	7 568
Recycled waste	57 ⁽³⁾	59 ⁽³⁾	58 ⁽³⁾	54	121
Losses from transmission and distribution of purchased electricity for Liberty-occupied buildings	2 955 ⁽³⁾	2 364 ⁽³⁾	3 196		
Electricity consumed by tenants	188 579	200 022	209 645		
Total combined Liberty scope 1 and 2 emissions	34 314	28 711	34 980	35 646	42 735
Total combined Liberty scope 1, 2 and 3 tenant emissions (Kyoto Protocol), including tenants' electricity emissions	238 107	243 923	262 722		
Total combined Liberty scope 1, 2 and 3 emissions (Kyoto Protocol), excluding tenants' electricity emissions ⁽⁴⁾	49 528 ⁽³⁾	43 899 ⁽³⁾	53 077	49 949	57 046
Total scope 1 and 2 emissions per full-time equivalent employee in South Africa (tonnes per employee) ⁽⁶⁾	4,39	3,45	4,13	4,06	4,64
Total scope 1 and 2 emissions per square metre of space (tonnes per square metre) ⁽⁶⁾	0,24	0,19	0,24	0,34	
Non-Kyoto Protocol fugitive greenhouse gas emissions (R22)	2 358	-	306	436	

⁽¹⁾ Carbon emission factors used: The Department for Environment, Food, and Rural Affairs in the United Kingdom has published guidelines for greenhouse gas conversion factors to help businesses convert existing data sources into equivalent CO₂e emissions. These conversion factors have been used as a basis to calculate Liberty's 2011-2018 carbon emissions. The Eskom conversion factor of 0,95 was used for electricity in South Africa during 2018.

⁽²⁾ Scope 1 emissions include all properties owned and operationally controlled by Liberty and excludes Liberty-leased branches controlled by third-party landlords.

⁽³⁾ The increase in scope 2 emissions is attributed to enhanced data collection from online metering systems.

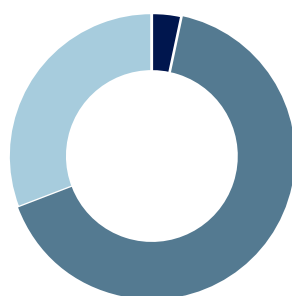
⁽⁴⁾ Total scope 3 was verified as 15 214tCO₂e⁽³⁾ by PwC and total scope 1, 2 and 3 emissions as 49 528tCO₂e⁽³⁾ with the exclusion of 188 579tCO₂e of tenants' electricity.

⁽⁵⁾ Excludes emissions from compostable (3tCO₂e) and hazardous waste (198tCO₂e).

⁽⁶⁾ Total square metre of space used: 144 954m² in 2018 (2017: 146 926m²). Number of full-time equivalent employees in South Africa for 2018 used was 7 821, which includes permanent and commission-remunerated agents sitting in our buildings.

Liberty's emissions - 2018

in tonnes of CO₂e by scope for 2018



Scope 1	1 730 ⁽³⁾
Scope 2	32 584 ⁽³⁾
Scope 3	15 214 ⁽³⁾



Reducing our water use

South Africa is a water-scarce country, and it is the responsibility of government, business and individuals alike to ensure we treat this precious resource with the respect it deserves. Water infrastructure requires significant investment, skills and maintenance to provide a constant supply and to avoid an impact on business and the economy. In response, Liberty embarked on a water conservation project at its head office in Braamfontein. The project involved collecting grey water in the building and harvesting rainwater from the roof, which is then treated to ensure it is safe for human use. It also included a water storage facility in the building.

To date, the project achieved a 44% saving for Liberty in water consumption at its Braamfontein office. Liberty received the Gold Water Conservation Award for the project in April 2018 at the Eco-Logic Awards and the Cornet Global Innovation Award. The awards promote the best of South Africa's eco-champions.

Liberty's water consumption ⁽¹⁾

Kiloliters (kL)	2018	2017	2016	2015	2014
Water consumption at owned and occupied properties ⁽²⁾	125 154 ⁽³⁾	117 102 ⁽³⁾	149 545 ⁽³⁾	134 296 ⁽³⁾	174 347 ⁽³⁾
Tenants' water consumption in shopping centres and offices ⁽³⁾	845 431	848 705	872 984	1 005 624	1 009 165
Total water consumption	970 585	965 807	1 022 529	1 139 920	1 183 512

⁽¹⁾ Currently, Liberty is in the process of collecting consumption information for its leased branches.

⁽²⁾ 171 Katherine Street, Liberty Centre Braamfontein, Liberty Centre Century City, Liberty Parkade, Libridge, Umhlanga Ridge, Eastgate Shopping Centre, STANLIB Melrose Arch.

⁽³⁾ 171 Katherine Street, Liberty Centre Century City, Liberty Gardens, Libridge, Liberty two Degrees in STANIB Melrose Arch, Botshabelo Mall, Eastgate Shopping Centre, Liberty Midlands Mall, Liberty Promenade Mitchell's Plain, Nelson Mandela Square, Sandton City.

Liberty among SA's Greenest

Liberty Centre in Braamfontein was named among the top "Greenest" buildings in South Africa at the 2018 Eco-Logic Awards and the Cornet Global Innovation Award. A water storage tank was designed to ensure that our Liberty Centre head office in Braamfontein would have at least three days of operations, in the case of severe water shortages. A grey water collection and treatment plant was designed to collect lightly used water from our hand basins, treat it safely and use it to supplement ablution flushing water. A rainwater collection system was designed to collect 70% of the rainwater from the roof of the building.



Managing our waste responsibly

We strive to minimise our consumption and are committed to increasing the amount we recycle. Our head office in Braamfontein has been recycling waste since 2010 and recycling bins are located in pause areas throughout the building and we only appoint waste removal companies that are registered in accordance with local municipality regulations. These companies ensure that all waste is brought to registered landfill

sites and is recycled where possible. The sorting and weighing of recyclable waste are carried out on Liberty's premises. In addition to the waste recorded in the table below we accumulated 198 tonnes of hazardous waste and 255 tonnes of wet waste during the year.

We encourage our employees to recycle at home.

Waste

Tonnes	2018	2017	2016	2015
Waste to landfill (t) ⁽¹⁾	4 916	5 247	6 284	5 459
Total recycled waste	2 662 (35%)	2 689 (34%)	2 738 (30%)	2 593 (32%)
Glass	342	371	357	206
Metal	39	57	49	41
Paper	1 979	1 946	1 965	2 083
Plastic	294	307	309	259
Tetrapak	8	9	121	4

⁽¹⁾ 171 Katherine Street, Liberty Centre Braamfontein, Liberty Centre Century City, Liberty Gardens, Liberty Parkade, Libridge, Botshabelo Mall, Umhlanga Ridge, Eastgate Shopping Centre, Liberty Midlands Mall, Liberty Promenade Mitchell's Plain, Nelson Mandela Square, Sandton City, STANLIB Melrose Arch.