

**12** RESPONSIBLE  
 CONSUMPTION  
 AND PRODUCTION



# Responsible consumption and production

## Contributing to the green economy

### UN context

Sustainable and responsible consumption and production is about doing more and better with less. The focus is on promoting resource and energy-efficiency, sustainable infrastructure and a better quality life for all. Currently, the consumption of natural resources is on the rise, and there is a growing need to educate consumers on sustainable consumption and lifestyles.<sup>1</sup>

<sup>1</sup> <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

### South African context

Despite existing legislation as well as policies and strategies there is still a need for South Africa to develop and implement a national sustainable development strategy and vision that connects these principles across sectors to cover all production and consumption patterns.<sup>2</sup>

<sup>2</sup> [https://sustainabledevelopment.un.org/content/documents/23402RSA\\_Voluntary\\_National\\_Review\\_Report\\_9\\_July\\_2019.pdf](https://sustainabledevelopment.un.org/content/documents/23402RSA_Voluntary_National_Review_Report_9_July_2019.pdf)

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### Our approach

At Liberty, we remain cognisant of our impact on the environment through our consumption of natural resources and our contribution to climate change. Despite not having a significant environmental footprint, we recognise the importance of responsible stewardship of natural resources and we strive to minimise our impact on the environment and, in turn, on climate change.

Our property portfolio has the greatest direct environmental impact and managing these buildings efficiently and effectively will benefit our business, tenants and society, as well as the environment. We manage the general supply of electricity and water to these buildings, including waste management on behalf of our tenants. However, they are responsible for their consumption thereof.

Our environmental impact feeds into our SEE strategy through the measurement of specific metrics applicable to our business. We are investigating setting environmental targets for our various business operations during 2020, and we have also initiated a process to enable us to report in line with the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD). Furthermore, we are assessing the environmental impact of our supply chain to enhance our SEE management strategy.

We focus on reducing our electricity consumption through efficiency initiatives and solar PV solutions. Our primary operations are in South Africa, a water scarce country, and we aim to consistently decrease our water consumption. Our water strategy includes aspects of broader societal water awareness, acknowledging water as a shared resource, and that we need to work together to increase our resilience to water shortages.

## Responsible consumption and production continued

### Energy consumption, carbon footprint and climate change risk

#### Liberty's contribution to responsible consumption and production



In our 2017 and 2018 reports to society, we reported on several projects that were in progress. The table below provides details of our progress in 2019.

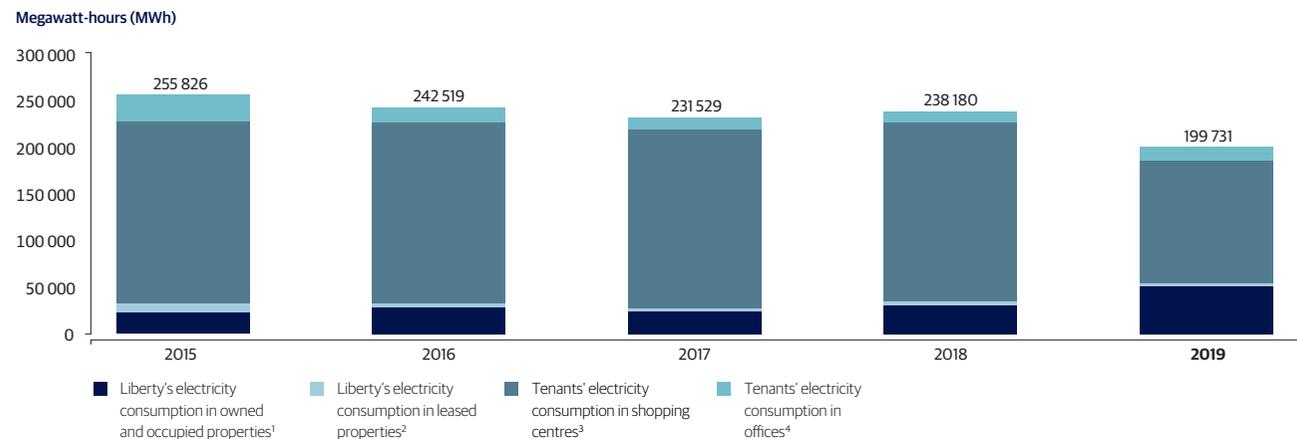
● Completed  
● In progress

Our promise	Achievement	Our progress
<b>Water resilience and efficiency storage tanks installed at Eastgate Shopping Centre, Liberty Centre Century City and Liberty Centre Braamfontein</b>	●	<ul style="list-style-type: none"> <li>The water tanks provide up to three days of water resilience in the case of unreliable water supply from municipalities</li> </ul>
<b>Green Building Council Existing Building Performance ratings</b>	●	<ul style="list-style-type: none"> <li>Applications for all the L2D shopping centres for green star certification were submitted during February 2020</li> <li>Operational since 2018 with a capacity of 572 kWp and battery storage capacity of approximately 19 200 kwh</li> <li>Generated 756 790 kwh of renewable energy in 2019 and approximately R800 000 in savings</li> </ul>
<b>Solar PV panels at our Braamfontein head office</b>	●	<ul style="list-style-type: none"> <li>Operational since March 2019 with a capacity of 1 062 kWp</li> <li>Generated 899 522 kwh of renewable energy in 2019 and approximately R950 000 in savings</li> </ul>
<b>Solar PV panels at Midlands Mall phase 3</b>	●	<ul style="list-style-type: none"> <li>Eastgate's solar PV plant installation will go out for tender in the first quarter of 2020, a 1 MW plant is planned</li> </ul>
<b>Solar PV planned for Eastgate and Botshabelo</b>	●	<ul style="list-style-type: none"> <li>Implementation is planned for the first half of 2020. The municipal water tank has a backup capacity of 300 kL and the grey water capacity is 310 kL</li> <li>The system also includes alternative water supply sources if needed, with a capacity of 170 kL rainwater, 40 kL groundwater and a total capacity of 210 kL per day</li> </ul>
<b>Midlands rainwater system</b>	●	<ul style="list-style-type: none"> <li>Installation was completed at the end of November 2018. Application for water testing has been made to the council to commission the plant for consumption</li> </ul>
<b>Water filtration plant installed at Century City</b>	●	<ul style="list-style-type: none"> <li>A pilot study was conducted for four of the reverse vending machines at Sandton City from November 2019 to January 2020</li> <li>18 715 units of waste were recycled with a total of weight of 449 kg</li> </ul>
<b>Reverse vending machines, linked to the Imagined Earth app, reward customers with vouchers to spend at Sandton City, for depositing their recyclable packing</b>	●	<ul style="list-style-type: none"> <li>L2D has committed to achieving net zero waste to landfill status by the end of 2020 across its entire portfolio and developing net zero water and carbon strategies by Q2 2020, which will map out the road to achieving net zero water and carbon status for the portfolio before 2030</li> </ul>
<b>Liberty Two Degrees net zero targets</b>	●	

At Liberty, we appreciate the meaningful role businesses can play in society. We strive to understand and manage our environmental impacts, which we view primarily through two lenses – where we have a direct impact or where, indirectly, we can be catalysts for positive change.

We source our electricity from the national grid, the majority of which is generated from non-renewable carbon-intensive resources. In 2019, we consumed 54 393 megawatt-hours (MWh) (2018: 34 299 MWh) of electricity at the properties we occupy, both owned and leased. The increase in consumption is mainly due to including common area consumption in retail facilities. The electricity consumption in tenant-occupied properties was 145 338 MWh (2018: 197 263 MWh). The decrease in consumption is due to the use of on-site renewable energy generated and the implementation of energy-efficient technology in our property portfolio.

### Liberty's electricity consumption



<sup>1</sup> 171 Katherine Street, Liberty Centre Braamfontein, Liberty Parkade, Libridge, Liberty Centre Century City, Liberty Centre Umhlanga Ridge, Eastgate Office Towers, STANLIB Melrose Arch, Atrium on 5th, Botshabelo Mall, Eastgate Shopping Centre, Liberty Midlands Mall, Liberty Midlands Mall Lifestyle Centre, Liberty Promenade Mitchell's Plain, Nelson Mandela Square Retail, Sandton City Retail. 2019 numbers include common area consumption in retail facilities.

<sup>2</sup> We currently report electricity consumption for 38 of our 46 leased buildings. We do not have access to electricity consumption information at the other eight buildings but we are working on this.

<sup>3</sup> Botshabelo Mall, Eastgate Shopping Centre, Liberty Midlands Mall, Liberty Midlands Mall Lifestyle Centre, Liberty Promenade Mitchell's Plain, Nelson Mandela Square Retail, Sandton City Retail.

<sup>4</sup> 171 Katherine Street, Libridge, Liberty Centre Century City, Liberty Centre Umhlanga Ridge, Eastgate Office Towers, Nelson Mandela Square Offices, Liberty Two Degrees in STANLIB Melrose Arch, Sandton Office Towers, Atrium on 5th.

During 2019, we appointed an external consultancy to conduct energy audits across our portfolio. All low-cost or no-cost interventions identified during the audit were actioned during 2019. As the cost of electricity continues to rise, we continue to explore the use of alternative sources. Building on the progress we made during 2018, this year our Midlands Mall solar project went live, and reduced electricity grid consumption by 899 522 kWh. Solar PV panels at our head office reduced our grid consumption by a further 756 790 kWh. These projects are expected to have a seven-year payback period and this period is expected to be reduced due to increasing electricity costs.

We are also investigating the implementation of solar energy at Eastgate Shopping Centre and Botshabelo Mall. The tender process for the installation of solar PV panels will be initiated during the 2020 financial year. We plan to install a 1 MW solar PV plant at our Eastgate Shopping Centre.

We participated in the CDP Climate Change questionnaire and once again achieved a B score (2018: B). We remain committed to reducing our carbon footprint, and aim to set material carbon reduction targets for the group during 2020, pending the outcome of our group environmental impact assessment. This will further align our business with the objectives of the SDGs.

We remain cognisant of the increased awareness and activism from investors, the public and employees around climate change. Together with SBG, Liberty formed a multidisciplinary TCFD working group to accelerate conversations around transitional risk and scenario planning for our business operations. The challenges and opportunities that Liberty could face in the future depend on how we manage climate change-related risks today, such as extreme weather events, and disruptions to our electricity and water supply.

**Liberty is investigating possible future risks and opportunities related to climate change that could potentially impact our core business operations and product offering, including:**

- Changes and uncertainty around mortality and morbidity rates directly related to climate change, and the consequent impact on life insurance products and pricing
- Transition risks arising from the movement to a lower carbon-producing economy, and
- Changes to investment performance through direct climate-related impacts on specific assets, regulation or restrictions leading to "stranded assets" and investment opportunities in capital-intensive climate change mitigation or transitions.

## Responsible consumption and production continued

### Energy consumption, carbon footprint and climate change risk continued

#### Liberty's South African carbon footprint

Tonnes carbon dioxide equivalent (tCO <sub>2</sub> e <sup>1</sup> )	2019	2018	2017	2016	2015
<b>Scope 1 direct CO<sub>2</sub> emissions<sup>2</sup></b>	<b>L 3 684</b>	<b>1 730</b>	<b>1 825</b>	<b>2 270</b>	<b>2 772</b>
Stationary fuel used in equipment owned or controlled (e.g. generators)	627	196	252	397	1 080
Fugitive emissions from air-conditioning and refrigeration gas refills	1 492	81	—	226	0,35
Mobile combustion from vehicle fleet consumption	1 565	1 453	1 547	1 657	1 692
On-site renewable energy generation <sup>3</sup>	0	0	—	—	—
<b>Scope 2 indirect CO<sub>2</sub> emissions<sup>4</sup></b>	<b>L 56 568</b>	<b>32 584</b>	<b>26 886</b>	<b>32 874</b>	<b>32 875</b>
Purchased electricity in Liberty-owned and occupied buildings	52 969	29 204	23 300	28 949	22 805
Purchased electricity in leased and occupied buildings	3 599	3 380	3 585	3 925	10 069
<b>Scope 3 total indirect CO<sub>2</sub> emissions, including tenants' electricity</b>	<b>L 167 297</b>	<b>203 893</b>	<b>215 212</b>	<b>227 578</b>	<b>—</b>
<b>Scope 3 total indirect CO<sub>2</sub> emissions, excluding tenants' electricity</b>	<b>L 16 145</b>	<b>15 214</b>	<b>15 188</b>	<b>17 933</b>	<b>14 303</b>
Business travel in commercial airlines	L 2 968	3 880	4 173	4 725	5 373
Business travel in rental cars and transfers	L 59	70	101	117	134
Hotel accommodation	L 390	566	185	175	167
Employee travel claims and allowances	L 1 079	1 131	1 236	1 293	1 301
Paper consumption	L 192	203	294	251	220
Waste to landfill <sup>5</sup>	L 5 916	6 352	6 778	8 119	7 052
Recycled waste	L 54	57	59	58	54
Losses from transmission and distribution of purchased electricity for Liberty-occupied buildings	L 5 487	2 955	2 364	3 196	—
Electricity consumed by tenants	L 151 152	188 579	200 022	209 645	—
<b>Total combined Liberty scopes 1 and 2 emissions</b>	<b>60 252</b>	<b>34 314</b>	<b>28 711</b>	<b>34 980</b>	<b>35 646</b>
<b>Total combined Liberty scopes 1, 2 and 3 tenant emissions (Kyoto Protocol), including tenants' electricity emissions</b>	<b>L 227 549</b>	<b>238 107</b>	<b>243 923</b>	<b>262 722</b>	<b>—</b>
<b>Total combined Liberty scopes 1, 2 and 3 emissions (Kyoto Protocol), excluding tenants' electricity emissions</b>	<b>76 397</b>	<b>49 528</b>	<b>43 899</b>	<b>53 077</b>	<b>49 949</b>
<b>Total scopes 1 and 2 emissions per full-time equivalent employee in South Africa (tonnes per employee)<sup>6</sup></b>	<b>7,61</b>	<b>4,39</b>	<b>3,45</b>	<b>4,13</b>	<b>4,06</b>
<b>Total scopes 1 and 2 emissions per square metre of space (tonnes per square metre)<sup>6</sup></b>	<b>0,14</b>	<b>0,24</b>	<b>0,19</b>	<b>0,24</b>	<b>0,34</b>
<b>Non-Kyoto Protocol fugitive greenhouse gas emissions (R22)</b>	<b>653</b>	<b>2 358</b>	<b>—</b>	<b>306</b>	<b>436</b>

<sup>1</sup> 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 CO<sub>2</sub>e emissions. These conversion factors have been used as a basis to calculate Liberty's 2011 – 2019 carbon emissions. The Eskom conversion factor of 1,04 was used for electricity in South Africa during 2019.

<sup>2</sup> The Scope 1 emissions disclosed increased as a result of enhanced data capturing and monitoring and due to the inclusion of R407 refrigerant gas consumption under fugitive emissions for the first time.

<sup>3</sup> 1 656 312 kWh of renewable energy generated at Liberty Centre Braamfontein, Liberty Parkade and Liberty Midlands Mall.

<sup>4</sup> 2019 numbers include emissions from Liberty Two Degrees. This resulted in an increase in our Scope 2 emissions because electricity use in common areas were moved from Scope 3 to Scope 2.

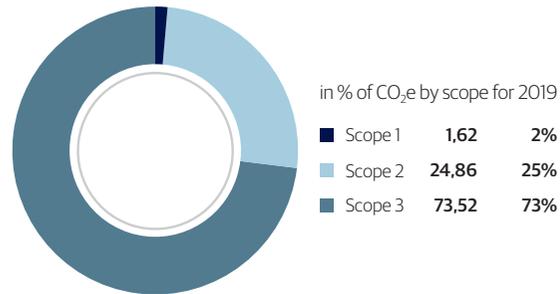
<sup>5</sup> Excludes emissions from compostable (0,77 tCO<sub>2</sub>e) and hazardous waste (289 tCO<sub>2</sub>e).

<sup>6</sup> Total square metre of space used: 424 192 m<sup>2</sup> in 2019 (2018: 144 954 m<sup>2</sup>). The number of full-time equivalent employees in South Africa for 2019 used was 7 916, which includes permanent and tied advisers in our buildings.

**L** Limited assurance expressed over selected KPIs by PwC.

 Refer to page 61 for PwC's limited assurance report.

## Liberty's emissions - 2019



## Saying goodbye to single-use plastics

Liberty realises the importance of safeguarding our environment by creating meaningful behavioural change. This year, we introduced initiatives to reduce single-use plastic waste at our Braamfontein offices. Single-use plastics pose a massive threat to our environment. Hard to recycle, these types of plastics take between 10 and 1 000 years to break down into microplastics that eventually enter our food systems. This year, we removed plastic cutlery, polystyrene cups and containers from all pause areas, canteens and coffee shops at our Braamfontein head office. Employees brought their own metal cutlery, and also received a discount if they used their own reusable mug at the coffee shops. To date, we eliminated the use of 440 000 units of polystyrene cups, 228 000 plastic teaspoons, 154 004 plastic spoons, 91 500 plastic forks and 77 376 plastic knives. This initiative will be rolled out to our other regions in the next financial year. Furthermore, from 1 January 2020, we banned single-use plastic bags from all Liberty retail centres.

We also launched our reverse vending machines at Sandton City. These machines are linked to the Imagined Earth app and reward customers for depositing their recyclable packaging waste by offering vouchers that can be spent at retailers in the shopping centre.

Next year, we will introduce recycling coffee cup bins – offering three compartments to dispose of the cup, lid and liquid – which will assist us in reducing the amount of waste sent to landfills. We will also conduct an environmental gap analysis to assess and identify areas for improvement and help us develop a holistic waste management approach.

## Reducing our water use

South Africa is a water scarce country, and as such we are committed to minimising our consumption. This year, we continued with our water conservation project at our head office in Braamfontein. Greywater collected in the building, together with rainwater harvested is used to supply the toilets. The project also includes a water storage facility in the building to buffer against possible municipal water supply issues. This project led to a reduction in our consumption by 6 099 kL (9,9%) for the building.

We also completed the design of our Midlands alternative water harvesting system, which we aim to implement during the first half of 2020. We expect that this system will save > 30 000 kL of water per year. We have also installed a water filtration plant at Century City, which we will commission during 2020.

## Liberty's water consumption<sup>1</sup>

Kilolitres (kL)	2019	2018	2017	2016	2015
Water consumption at owned and occupied properties <sup>2</sup>	341 188	125 154	117 102	149 545	134 296
Tenants' water consumption in shopping centres and offices <sup>3</sup>	551 061	845 431	848 705	872 984	1 005 624
Total water consumption	892 249	970 585	965 807	1 022 529	1 139 920

<sup>1</sup> Liberty is currently in the process of collecting consumption information for its leased branches. The increase in water consumption at owned and occupied properties is due a correction of the data capturing methodology applied for water consumption, in order to ensure more complete reporting. Water consumption in the common areas of our shopping centres are now included within the water consumption footprint of our owned and occupied properties and excluded from tenant's water consumption footprint in shopping centres and offices. The overall water consumption has decreased by 8% from 2018.

<sup>2</sup> 171 Katherine Street, Liberty Centre Braamfontein, Liberty Parkade, Libridge, Liberty Centre Century City, Liberty Centre Umhlanga Ridge, Eastgate Office Towers, STANLIB Melrose Arch, Atrium on 5th, Botshabelo Mall, Eastgate Shopping Centre, Liberty Midlands Mall, Liberty Midlands Mall Lifestyle Centre, Liberty Promenade Mitchell's Plain, Nelson Mandela Square Retail, Sandton City Retail. The increase is due to the inclusion of common area water consumption within the total water consumption of owned and occupied properties.

<sup>3</sup> Botshabelo Mall, Eastgate Shopping Centre, Liberty Midlands Mall, Liberty Midlands Mall Lifestyle Centre, Liberty Promenade Mitchell's Plain, Nelson Mandela Square Retail, Sandton City Retail, 171 Katherine Street, Libridge, Liberty Centre Century City, Liberty Centre Umhlanga Ridge, Eastgate Office Towers, Nelson Mandela Square Offices, Sandton Office Towers, Atrium on 5th. The decrease is due to the exclusion of common area water consumption from the total tenant's water consumption in shopping centres and offices.

**L** Limited assurance expressed over selected KPIs by PwC.

**RTS** Refer to page 61 for PwC's limited assurance report.

## Managing our waste responsibly

At Liberty, we remain committed to improving our recycling efforts. We have been recycling waste at our head office for almost 10 years. All our pause areas throughout the building have recycling bins. Furthermore, we only appoint waste removal companies that comply with local municipal regulations to ensure that all waste is taken to registered landfill sites and recycled where possible. We also encourage our employees to recycle at home.

We conducted a waste assessment in 2019, the results of which identified opportunities for Liberty to further reduce our waste to landfill. Among others, we realised that only 36% of our waste is recycled and we have the opportunity to divert food waste from landfill. We are investigating the feasibility of composting our food waste at our Eastgate Shopping Centre and Sandton Retail on-site composters, which have a capacity of 40 tonnes and 50 tonnes of organic waste respectively. If this proves feasible, we will install composters at all of our shopping centres.

## Total waste

Tonnes (t)	2019	2018	2017	2016	2015
Waste to landfill <sup>1</sup>	L 4 579	4 916	5 247	6 284	5 459
Total recycled waste	L 2 547 (36%)	2 662 (35%)	2 689 (34%)	2 738 (30%)	2 593 (32%)
Glass	369	342	371	357	206
Metal	27	39	57	49	41
Paper	1 875	1 979	1 946	1 965	2 083
Plastic	268	294	307	309	259
Tetrapak/mixed/other	8	8	9	121	4

<sup>1</sup> 171 Katherine Street, Liberty Centre Braamfontein, Liberty Parkade, Libridge, Liberty Centre Century City, Liberty Centre Umhlanga Ridge, Eastgate Office Towers, STANLIB Melrose Arch, Atrium on 5th, Botshabelo Mall, Eastgate Shopping Centre, Liberty Midlands Mall, Liberty Midlands Mall Lifestyle Centre, Liberty Promenade Mitchell's Plain, Nelson Mandela Square Retail, Sandton City Retail.

In addition to the above, we disposed of 224 tonnes of hazardous waste and 76 tonnes of organic waste during 2019.