

Trucost  
ESG Analysis

S&P Global

# Lok'nStore Operational Footprint

Financial Year 2018-19



**Credits**

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## Table of Contents

Introduction.....	4
Scope .....	4
Key Findings .....	5
Detailed Findings .....	6
Operational Greenhouse Gas Emissions .....	6
Direct (Scope 1) GHG Emissions .....	6
Indirect (Scope 2) GHG Emissions .....	7
Renewable Energy Generation .....	8
Water Consumption .....	9
Waste Generation and Recycling .....	10
Recommendations.....	14
Appendix I – Setting Science-Based GHG Reduction Targets.....	15

## Introduction

Lok'nStore Group plc engaged Trucost to review its reporting of environmental impacts for the financial year of 2018-19 (FY2018-19), which comprised August 2018-July 2019. The UK government requires all quoted companies to report on their greenhouse gas (GHG) emissions as part of their annual director's report under the Companies Act 2006 (Strategic Report and Director's Report) Regulations 2013. Lok'nStore's GHG reporting for 2018-19 aligns with government guidelines. In addition, the company's environmental reporting is consistent with the *Government Guidelines, Environmental Key Performance Indicators: Reporting Guidelines for UK Business 2006*.

## Scope

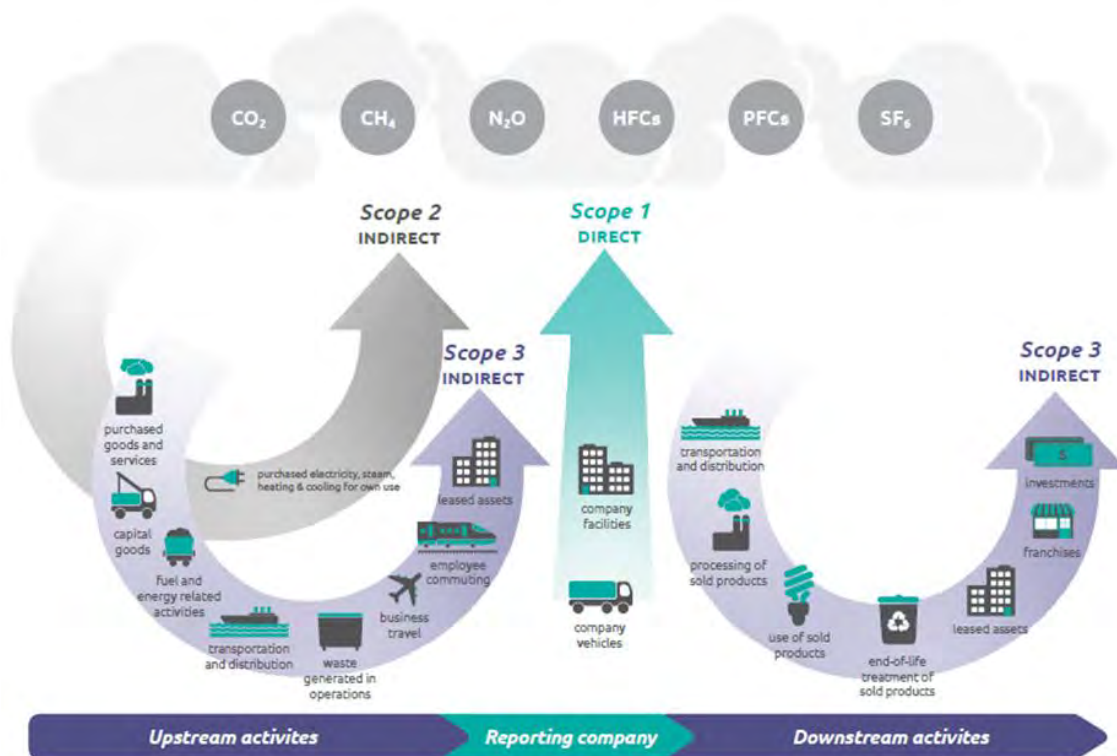
Lok'nStore assessed and disclosed environmental impacts for both its owned and Saracen facilities.

Environmental indicators covered include:

- GHG emissions, scope 1 and 2 (see exhibit 1 below)
- Water consumption and
- Waste generation.

Exhibit 1 below summarizes an organization's sources of GHG emissions, across scope 1 (direct emissions), scope 2 (indirect emissions, primarily purchased electricity) and scope 3 (indirect emissions from upstream suppliers and downstream customers).

EXHIBIT 1: SCOPE OF VALUE CHAIN GHG EMISSIONS FOOTPRINT



Source: WRI (2015) GHG Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

## Key Findings

Trucost reviewed Lok'nStore's environmental data for FY2018-19 and its calculated impacts to validate the company's reporting and identify necessary corrections. Exhibit 2 below relates the key findings for environmental impacts and their trends. (Further details for these metrics are available in exhibit 10.)

EXHIBIT 2: KEY FINDINGS FOR ENVIRONMENTAL IMPACT METRICS, FY2018-19

IMPACT METRIC	FY2018-19 TREND	DETAILED CHANGES
Operational GHG emissions (scope 1 & 2)	✓	<ul style="list-style-type: none"> <li>Decreased 14% in absolute terms, to 170 metric tons (tCO<sub>2</sub>e)</li> <li>Operational GHG emissions intensity, revenue normalised, decreased 19% to 9.56tCO<sub>2</sub>e per million (£m) revenue</li> <li>Since 2009, GHG emissions have shrunk 66%, from 493 tCO<sub>2</sub>e. The emission intensity, revenue normalized has reduced by 81%.</li> </ul>
Direct (scope 1) GHG emissions	✓	<ul style="list-style-type: none"> <li>Decreased 14% to 170 tCO<sub>2</sub>e including natural gas consumption &amp; owned transportation</li> <li>Direct GHG emissions intensity decreased 19% to 9.56tCO<sub>2</sub>e per £m revenue</li> </ul>
Indirect (scope 2) GHG emissions – market based	✓	<ul style="list-style-type: none"> <li>Stayed consistent at 0 tCO<sub>2</sub>e.</li> <li>As such, indirect scope 2 emissions intensity stayed at 0 tCO<sub>2</sub>e per £m               <ul style="list-style-type: none"> <li>All facilities use 100% electricity derived from renewable feed stocks, generating zero GHG emissions</li> </ul> </li> <li>Electricity usage has decreased by 81,353 kWh in absolute terms, a 3% reduction</li> </ul>
Renewable energy generation	✓	<ul style="list-style-type: none"> <li>Overall 53% increase in energy generated across all sites</li> <li>Two additional facilities started PV generation in 2018-19</li> <li>All sites had an increase in production.</li> </ul>
Water consumption	✗	<ul style="list-style-type: none"> <li>Absolute 17% increase in water consumption, to 3,965m<sup>3</sup></li> <li>Water intensity increased to 223 m<sup>3</sup> per £m revenue, an increase of 10%</li> </ul>
Waste generation (landfill)	✗	<ul style="list-style-type: none"> <li>Volume of waste to landfill increased 10%, to 141 metric tons</li> <li>Landfill waste intensity increased by 3% per £m revenue</li> </ul>
Waste recycling	✓	<ul style="list-style-type: none"> <li>Volume of recycled waste remained consistent, with less than 1% increase</li> <li>Recycling intensity decreased 6.4%, from 7.86 metric tons per £m revenue to 7.39 t per £m revenue</li> </ul>

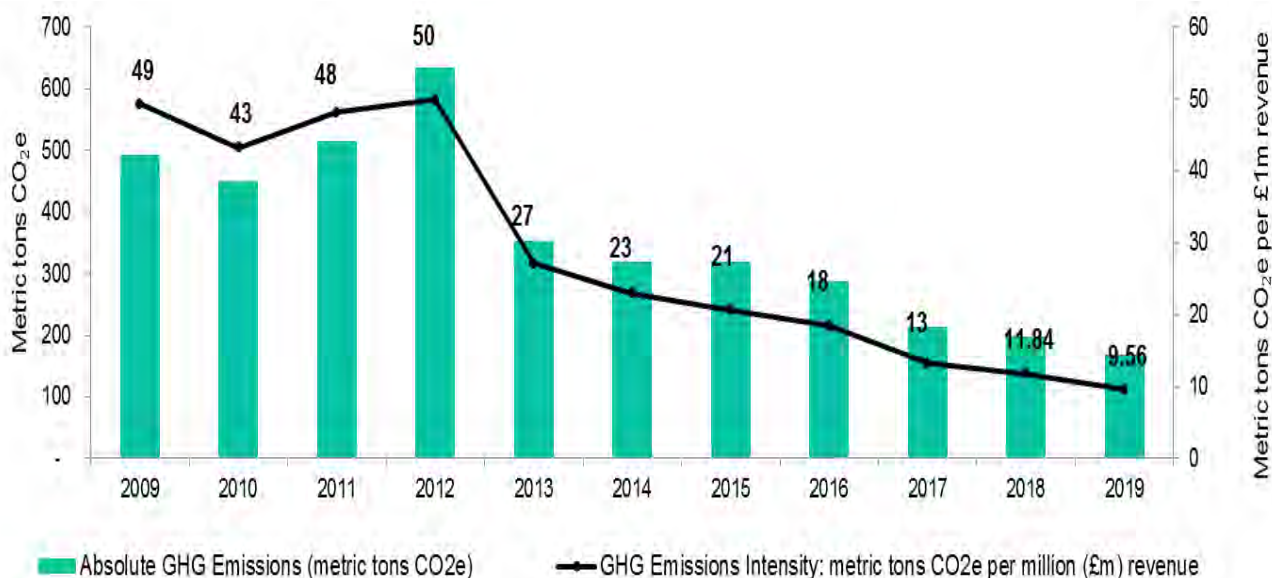
## Detailed Findings

### Operational Greenhouse Gas Emissions

During FY2018-19, Lok'nStore and Saracen's combined operational GHG emissions—direct and indirect scope 2—decreased by 14%, falling to 170 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) from 197 tCO<sub>2</sub>e the previous financial year. This is the fourth year of decrease in a row. Normalizing these emissions by annual revenue allows intensity comparisons to be made year-on-year. FY2018-19 had a 19% lower emissions intensity of 9.56 tCO<sub>2</sub>e per £m compared to FY2017-18 intensity of 11.8 tCO<sub>2</sub>e per £m.

Since the company began reporting in 2005, GHG emissions have decreased by 86% from 1,189 tCO<sub>2</sub>e. When normalized by annual revenue, Lok'nStore emissions intensity has decreased by 94% since 2005. Exhibit 3 below displays the absolute emissions and intensity values between 2009 and 2019.

EXHIBIT 3: COMBINED DIRECT AND INDIRECT OPERATIONAL GREENHOUSE GAS EMISSIONS, FY2009-19

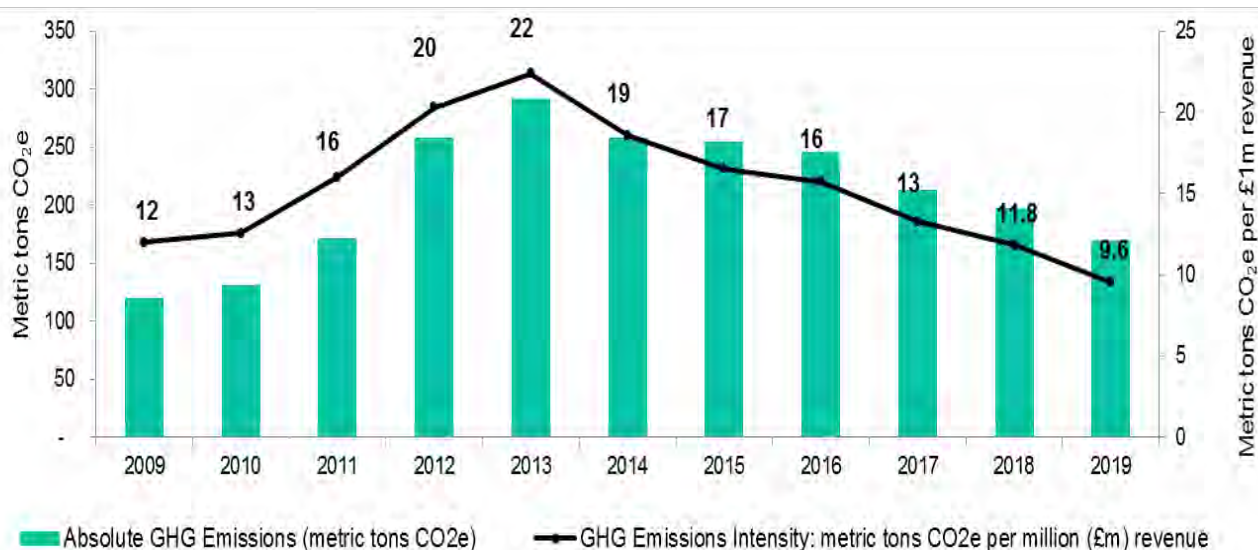


### Direct (Scope 1) GHG Emissions

One component of GHG emissions from organizational operations are direct (or scope 1) emissions derived from natural gas consumption, owned transportation and similar activities. During FY2018-19 Lok'nStore's scope 1 emissions decreased by 14% to 170 tCO<sub>2</sub>e, from 197 tCO<sub>2</sub>e the previous financial year. Comparing the intensity of GHG emissions normalized by revenue, FY2018-19 emissions declined by 19% to 9.56tCO<sub>2</sub>e per £m, from 11.8 tCO<sub>2</sub>e per £m during FY2017-18, as shown in exhibit 4.



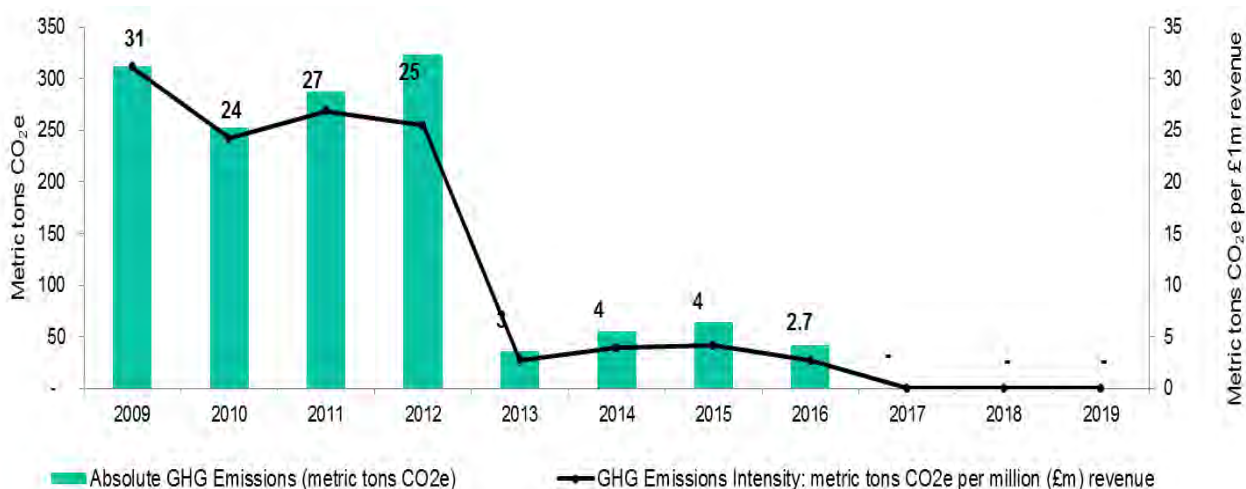
EXHIBIT 4: DIRECT OPERATIONAL GREENHOUSE GAS EMISSIONS, FY2009-19



### Indirect (Scope 2) GHG Emissions

A second component of GHG emissions related to organizational operations are indirect (or scope 2) emissions primarily from the consumption of purchased electricity. Since Lok'nStore consumed 100% of its electricity derived from renewable feed stocks—through its purchases from vendors and on-site PV electricity generation at company facilities—one can consider this electricity as generating zero GHG emissions (0 tCO<sub>2</sub>e). As a result, Lok'nStore's scope 2 emissions intensity remains 0 tCO<sub>2</sub>e per £m of revenue, as per FY2016-17. This is down from 2.7 tCO<sub>2</sub>e per £m of revenue in FY2015-16. Exhibit 5 conveys these values.

EXHIBIT 5: INDIRECT OPERATIONAL GREENHOUSE GAS EMISSIONS, FY2009-19



## Renewable Energy Generation

Lok'nStore has prioritized installing solar photovoltaic panels in many of its facilities. Lok'nStore facilities produced 53% more PV electricity during FY2018-19, 344 MWh, up from 224 MWh the previous year. This increase in PV generation can be attributed to two additional sites, Gillingham and Wellingborough, which started PV generation in FY 2018-19. All sites had an increase in production, with Reading showing the most significant increase of 17%. This electricity avoided 97 tCO2e of GHG emissions, based on the national standard mix of non-renewable energy. The amount of exported PV electricity increased to 43 MWh.

All of the sites saw an increase in generation, ranging from 5% increase at Maidenhead to 17% increase in Reading.

Exhibits 6 and 7 show the overall electricity generation from on-site PV systems at each facility. Exhibit 8 provides the amount of PV electricity exported from each facility. The Company's elimination of any GHG footprint from electricity consumption at its facilities and export of clean energy to the national grid demonstrate its success.

EXHIBIT 6: ELECTRICITY GENERATED PER SITE, FY2018-19

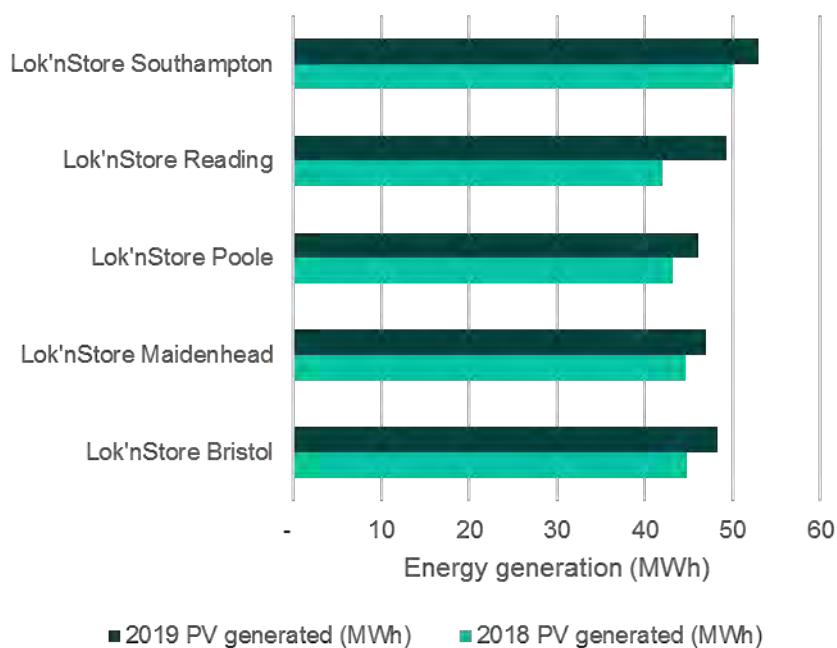


EXHIBIT 7: LOK'NSTORE PHOTOVOLTAIC ELECTRICITY GENERATED, BY FACILITY, FY2018-19

LOK'NSTORE FACILITY	FY2018-19 PV GENERATED (MWh)	FY2017-18 PV GENERATED (MWh)	CHANGE (%)
Poole	46.2	43.2	7%
Maidenhead	46.9	44.7	5%
Reading	49.4	42.0	17%
Bristol	48.3	44.7	8%
Southampton	53.0	50.0	6%
Gillingham	53.9	N/A	N/A
Wellingborough	46.1	N/A	N/A
<b>Total</b>	<b>343.7</b>	<b>224.7</b>	<b>53%</b>



Lok'nStore Operational Footprint: FY 2018-19

<b>Avoided GHG emissions (tCO<sub>2</sub>e), applying national standard mix</b>	<b>97.29</b>	<b>63.6</b>	<b>53%</b>
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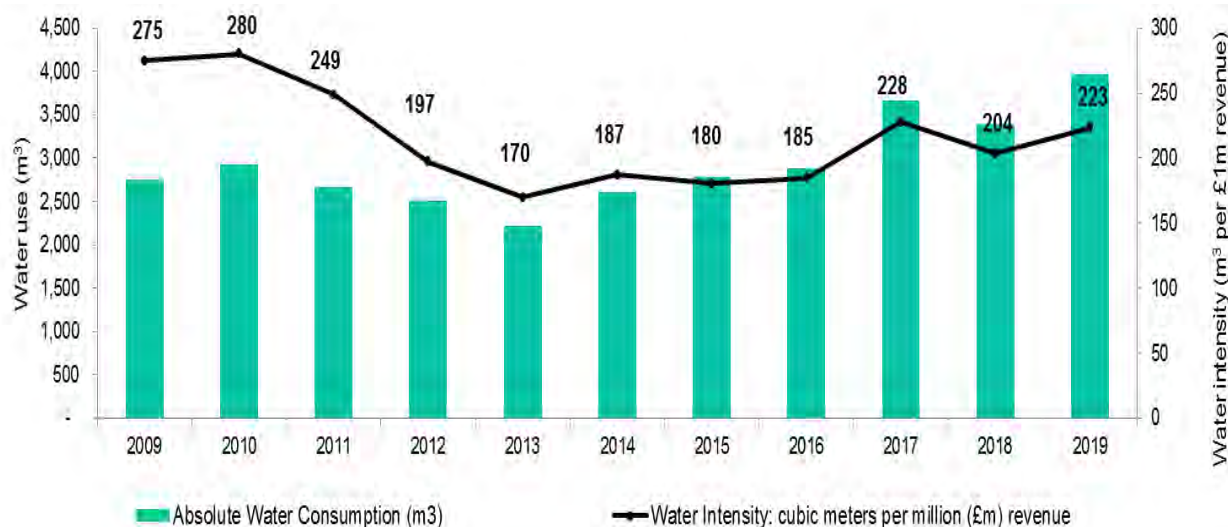
EXHIBIT 8: LOK'NSTORE PHOTOVOLTAIC ELECTRICITY EXPORTED, BY FACILITY, FY2018-19

LOK'NSTORE FACILITY	FY2018-19 PV EXPORTED (MWh)	FY2017-18 PV EXPORTED (MWh)	CHANGE (%)
Poole	6.1	4.1	49%
Maidenhead	8.7	9.9	-11%
Reading	4.4	3.8	15%
Bristol	5.8	6.5	-11%
Southampton	3.5	4.1	-14%
Gillingham	7.1	N/A	N/A
Wellingborough	7.7	N/A	N/A
<b>Total</b>	<b>43.4</b>	<b>28.4</b>	<b>53%</b>
<b>Avoided GHG emissions (tCO<sub>2</sub>e), applying national standard mix</b>	<b>12.3</b>	<b>8.0</b>	<b>53%</b>

Water Consumption

In FY2018-19 absolute water use was 3,965 cubic meters (m<sup>3</sup>), an increase of 17% from 2017-18. Water use intensity, normalized by revenue, increased 10% to 223 m<sup>3</sup> per £m, from 204 m<sup>3</sup> per £m the previous year. Since 2005, both absolute water consumption and water use intensity have decreased—by 23% and 66%, respectively. Exhibit 10 features the values for water use.

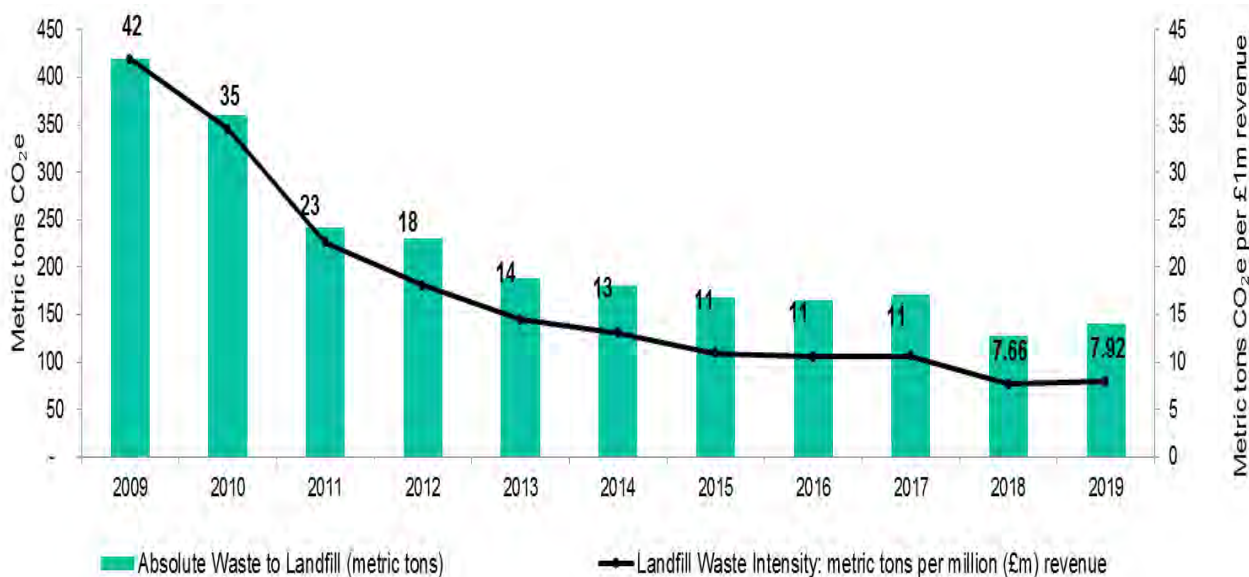
EXHIBIT 9: WATER USE, FY2009-19



### Waste Generation and Recycling

Absolute waste to landfill has decreased by 65% compared to 2009. During FY2018-19, normalized waste intensity decreased to 15.3 metric tons per £m, from 15.5 metric tons per £m. During FY2018-19, total waste generation has increased by 5% to 272 metric tons, from 258 metric tons during FY2017-18. This was most significantly associated with increase in cardboard recycled waste (up 6%), although landfilled waste also increased (up 10%). Incinerated waste increased by 8% from 0.023 to 0.025 tonnes but is insignificant in comparison to total waste generated. Exhibit 11 displays the landfilled waste for the period FY2009-19.

EXHIBIT 10: LANDFILLED WASTE, FY2009-19



Recycling as a proportion of total waste reduced from 51% in FY2017-18 to 48% in FY2018-19. Recycled materials included cardboard, office paper, used computer media<sup>1</sup> and equipment and shrink wrap.<sup>2</sup>

EXHIBIT 11: SUMMARY OF ENVIRONMENTAL IMPACTS FROM OPERATIONS, FY2018-19

Impact Metric	Definition	Data Source and	Absolute Quantity		Normalized* Quantity Per £m Revenue		%Change in Normalized
		Calculation Method	FY2017-18	FY2018-19	FY2017-18	FY2018-19	
<b>Greenhouse Gas emissions—direct operational (tCO<sub>2</sub>e)</b>							
Natural gas	Emissions from utility boilers	Yearly consumption in kWh collected	25.93	31.05	1.56	1.75	12%

<sup>1</sup> Trucost characterized computer media as hard drives for the purpose of this analysis. Trucost applied an average value of 4.6 ounces based on a sample of products available through Amazon.

<sup>2</sup> Trucost identified shrink wrap as “plastic” in the analysis of general material types.

Lok'nStore Operational Footprint: FY 2018-19

		from fuel bills, converted according to DEFRA Guidelines					
<b>Van fuel</b>	Diesel and petrol used in vans on company business	Fuel invoices, recorded mileage or satellite tracking converted according to DEFRA Guidelines	<b>15.68</b>	<b>14.61</b>	<b>0.94</b>	<b>0.82</b>	<b>-13%</b>
<b>Automobile fuel</b>	Diesel and petrol used in cars on company business	Fuel invoices, recorded mileage or satellite tracking converted according to DEFRA Guidelines	<b>155.51</b>	<b>123.95</b>	<b>9.34</b>	<b>6.98</b>	<b>-25%</b>
<b>Total direct GHGs</b>	Includes carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ) and nitrous oxide (N <sub>2</sub> O)	Calculated according to DEFRA Guidelines	<b>197.12</b>	<b>169.61</b>	<b>11.84</b>	<b>9.56</b>	<b>-19%</b>
<b>Greenhouse gas emissions—Indirect operational (tCO<sub>2</sub>e)</b>							
<b>Purchased electricity</b>	Directly purchased electricity, which generates GHGs based on the fuel source	Yearly consumption of purchased electricity in kWh, converted according to DEFRA Guidelines. Since Lok'nstore consumed 100% electricity from renewable feedstocks - through its purchase from vendors and on site PV electricity	-	-	-	-	<b>N/A</b>

Lok'nStore Operational Footprint: FY 2018-19

		generation, so the emissions are Zero.					
<b>Greenhouse gas emissions—total operational (tCO<sub>2</sub>e)</b>							
<b>Operational GHG emissions</b>	Combined direct (scope 1) and indirect (scope 2) GHG emissions from operations	Added values for direct operational emissions and indirect operational emissions above	<b>197.12</b>	<b>169.61</b>	<b>11.84</b>	<b>9.56</b>	<b>-19%</b>
<b>Water usage (cubic meters)</b>							
<b>Water use</b>	Consumption of piped water	Yearly consumption of purchased water	<b>3,389</b>	<b>3,965</b>	<b>203.54</b>	<b>223.38</b>	<b>10%</b>
<b>Waste generation (metric tons)</b>							
<b>Landfilled waste</b>	Office waste sent to landfills, including paper, cardboard and plastic	Volume of landfilled waste, based on the number of bins and skips removed; converted to metric tons according to DEFRA Guidelines	<b>127.59</b>	<b>140.56</b>	<b>7.66</b>	<b>7.92</b>	<b>3%</b>
<b>Incinerated waste</b>	Sanitary waste that was incinerated	Volume of incinerated sanitary waste, based on the number of bins removed	<b>0.02</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>	<b>2%</b>
<b>Recycled waste</b>	Office waste recycled, including cardboard, computer media and fluorescent lights	Volume of recycled waste, based on the number of bins and skips removed, which was converted to metric tons according to	<b>130.83</b>	<b>131.17</b>	<b>7.86</b>	<b>7.39</b>	<b>-6%</b>

**Lok'nStore Operational Footprint: FY 2018-19**

		DEFRA Guidelines					
<b>Total waste</b>	Includes waste that was landfilled, incinerated or recycled	Measured by tracking waste volumes throughout the year	<b>258.44</b>	<b>271.75</b>	<b>15.52</b>	<b>15.31</b>	<b>-1%</b>



## Recommendations

Trucost recommends the next steps listed below for Lok'nStore based on the operational footprint analysis for FY2018-19.

- **Waste reductions strategies** – Lok'nStore's waste to landfill has increased by 10% and recycled waste, especially cardboard and media waste, has increased compared to last year. Trucost recommends considering waste reduction strategies and extend recycling to additional material categories.
- **Reduction in water usage** – Water consumption has increased by 17% in FY 2018-19. Lok'nStore can look for water reduction initiatives such as increasing use of recycled water, reducing usage wherever possible through water efficiency initiatives (e.g., real-time metering, equipment maintenance, automatic shut-off when equipment needing water is not in use, etc.), and educating employees and staff on reducing water use.
- **Measures to reduce natural gas use** – Natural gas usage has increased by 20% from 140,943 kWh to 168,784 kWh in FY2018-19. Trucost recommends to gradually phase out natural gas use from heating/utility boilers and switch to electric or cleaner alternatives such as energy generated from refuse, wood or biomass.
- **Focus on vehicle fuel usage** – Mileage of company cars (petrol) has increased by 30% and mileage of flood vans has increased by 87% compared to last year. Trucost recommends replacing travel with remote meetings where possible. Lok'nStore can also consider purchasing carbon offsets to compensate for the vehicle fuel usage or consider increasing the fleet of electric vehicles and gradually phasing out petrol/diesel vehicles.
- **Continue renewable energy production** – Lok'nStore has significantly increased PV generation from 78MWh in 2014 to 344 MWh in 2019. Trucost recommends Lok'nStore to continue with this effort and increase the proportion of electricity generated on site.
- **Increase scope of analysis to include scope 3** - Trucost has found that usually 70-90% of companies' environmental footprints are beyond their own walls. These external, hidden sources of resource use and emissions include both upstream—such as raw material sourcing and supplier operations—and downstream—such as customer use of company services and the disposal of materials. Trucost recommends that Lok'nStore increase its tracking of upstream and downstream (scope 3) impacts, both in the range of impact categories and the breadth of effects within each category.
- **Set science based targets** - Trucost recommends that Lok'nStore explore developing science-based targets under the Science Based Targets initiative<sup>3</sup> (Please see Appendix I for further details) for its existing GHG emissions. This will ensure that Lok'nStore's emissions are in line with a target that can help limit the worst effects from climate change.

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<sup>3</sup> <https://sciencebasedtargets.org>

## Appendix I – Setting Science-Based GHG Reduction Targets

Targets to reduce GHG emissions are considered science-based if they align with the level of decarbonization needed to keep global temperature increase <2°C compared to preindustrial temperatures, per the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)<sup>4</sup>.

The Science Based Targets Initiative is a joint initiative of CDP, the UN Global Compact, the World Resources Institute, and WWF (SBTi, 2018a). The initiative allows companies to choose from several target-setting methods, depending on the requirements of their sector. Researchers developed the Sectoral Decarbonization Approach through a multi-stakeholder process, which allocates the 2°C carbon budget to different sectors and limits any single company's GHG emissions to an amount based on its "fair share." (SBTi, 2018a).

This method takes account of inherent differences among sectors, such as how fast each sector can grow relative to economic and population growth. Within each sector, companies can derive their science-based emission reduction targets based on their relative contribution to the total sector activity and their carbon intensity relative to the sector's intensity in the base year.

Science-based GHG reduction targets are a natural next step and can assist Lok'nStore in targeting improvement in the most-needed areas, such as the energy mix of power generation, transport and logistics. In addition, science-based targets will ensure that Lok'nStore's reduction goals "are in line with the level of decarbonization required to keep global temperature increase below 2 degrees Celsius compared to pre-industrial temperatures." (SBTi, 2018b).

As of September 2017, 298 companies have committed to science-based targets and 71 companies have approved science-based targets. While the Science Based Target Initiative accepts both absolute and intensity targets, there is a preference for setting absolute targets, as they ensure an overall reduction in GHG emissions relative to the remaining carbon budget. However, Trucost recommends that companies set both absolute and intensity targets to provide the most transparency to stakeholders. Using both targets also can help track real reductions in emissions and improvements to efficiency performance, while allowing for flexibility in addressing stakeholder needs. On the next page is a table provided by the Science Based Targets initiative summarizing the advantages and disadvantages of different targets. (SBTi, 2018c).

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<sup>4</sup> <https://www.ipcc.ch/assessment-report/ar5/>

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