

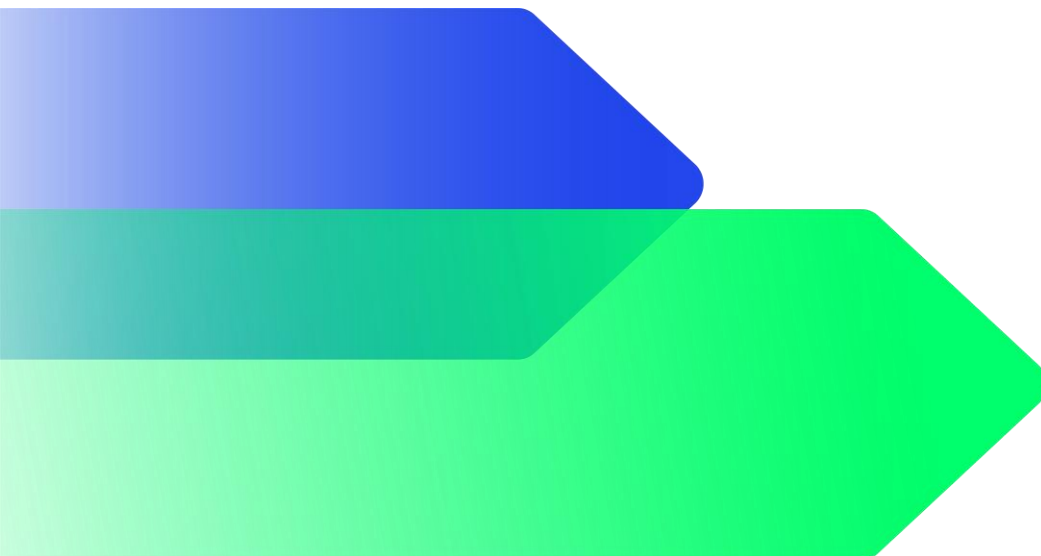
REPORT

Streamlined Energy and Carbon Reporting Summary

ASDA Group Limited

7th March 2023

Version 3.0





**The Carbon Trust's mission is to
accelerate the move to a decarbonised future.**

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Contents

Authors:	1
1. Introduction	3
2. SECR qualification, scope and boundaries	4
2.1. Organisational Boundary	4
2.2. Operational boundary and data sources	5
3. Methodology	6
3.1. Methodology	6
4. SECR Energy and carbon emissions summary	7
4.1.1. Energy use breakdown	7
4.1.2. Energy Type breakdown	8
4.2. SECR carbon emissions summary	9
4.2.1. SECR carbon emissions by scope	10
4.3. Emissions Intensity	10
4.4. Energy Efficiency Actions	11
5. SECR summary information for Annual Report	12
5.1. SECR summary for Annual Report	12
5.1.1. SECR Summary for Directors Report	12
5.1.2. Annual Report Summary using FRC's SECR Taxonomy v1.0.0.	14

Tables

Table 1. SECR Qualification criteria	4
Table 2. Company registration details	4
Table 3. SECR Operational boundary and data sources	5
Table 4. Energy consumption by energy use current reporting period 2022	7
Table 5. Energy consumption by type for current reporting period 2022 compared to 2021	8
Table 6. SECR carbon emissions summary	9
Table 7. Carbon emissions by source for 2022	10
Table 8. Emissions intensity summary comparison with previous reporting period ...	10

Figures

Figure 1. <i>Organisational structure and SECR Boundary</i>	4
Figure 2. <i>Energy Use breakdown for 2022</i>	7
Figure 3. <i>Energy type breakdown</i>	8
Figure 4. <i>Carbon emissions by scope for 2022 (location-based)</i>	10

1. Introduction

The UK Government's Streamlined Energy and Carbon Reporting (SECR) policy was implemented on 1 April 2019, when the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 came into force.

Three groups of businesses are affected by these regulations. Companies that fall within the following definitions must comply unless they meet certain exemption criteria:

- Quote companies of any size
- Unquoted 'large' companies
- 'Large' Limited Liability Companies (LLPs)

Unquoted companies or LLPs are defined as 'large' if they meet at least two of the following criteria in a reporting year:

- A turnover of £36m or more
- A balance sheet of £18m or more
- 250 employees or more

The reporting of energy and carbon data is required for financial years beginning on or after 1st April 2019.

Accompanying this report is an evidence pack containing all the raw data, analysis, and calculations. This is presented in the MS Excel model 'ASDA Scope 1&2 2022 v.Final'.

2.2. Operational boundary and data sources

An operational control approach has been used to determine the energy and emissions sources included within the SECR operational boundary for ASDA Group Limited. The minimum SECR requirements for a 'large' unquoted organisation have been met, namely all UK energy and emissions sources for electricity, gas, and transport fuels for which the organisation is responsible are included. In addition, ASDA has elected to report their use of liquid fuels (in stationary applications) and greenhouse gas (GHG) emissions associated with their use of refrigerants (included within scope 1 emissions). Details of operational boundary assessment are shown in the table below. The energy consumption and emissions from previous SECR period 2021 are also reported for comparison.

All information and activity data on which this assessment is based was provided by Laura Babbs and Emma Gibson of ASDA Group Limited via SharePoint and MS Teams meetings. An evidence pack containing the raw data provided for the assessment together with the analysis and calculations is presented as an MS Excel Model 'ASDA Scope 1&2 2022 v.Final' together with this summary report.

Table 3. SECR Operational boundary and data sources.

Energy and emissions sources	Operational Control	UK energy and emissions data sources
Building energy	ASDA & IPL	Consolidated monthly invoice data. Source files: <ul style="list-style-type: none"> • 2022 Gas (revised 28-Feb-23).xlsx • 2022 Electricity (revised 28-Feb-23).xlsx • 2022 F Gas.xlsx • 2022 Solar.xlsx • All Excel's in IPL Scopes 1&2
Transport and Distribution	ASDA	Source files: <ul style="list-style-type: none"> • Allstar YTD 2022.xlsx • ASDA RDC - Jan to YTD 2022.xlsx (diesel tab) • Scania Gas Truck Data 2022.xlsx • Volvo LNG Truck Data 2022.xlsx
Owned/leased vehicles	ASDA & IPL	Employee car business mileage expense claims Source file: <ul style="list-style-type: none"> • Carbon footprint annual report 2022.xlsx
Grey Fleet	ASDA	Source files: <ul style="list-style-type: none"> • Carbon footprint annual report 2022.xlsx • 2022 IPL mileage per employee.xlsx • Forza Business Travel.xlsx • Kober Business Travel.xlsx
LPG	ASDA	Source files: <ul style="list-style-type: none"> • Asda 2022 Deliveries.xlsx • IPL - Scopes 1&2 (all Excel's in folder)
Gas oil / Fuel oil	ASDA	<ul style="list-style-type: none"> • Fuel Oil by Store 2022 Updated.xlsx • IPL - Scopes 1&2 (all Excel's in folder)

Transport refrigerant emissions	ASDA	<ul style="list-style-type: none"> • Asda Gas Report 2022.xlsx • Asda Refrigerant Review 2022.xlsx
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3. Methodology

3.1. Methodology

All the SECR requirements for unquoted 'large' companies have been met with energy consumption and associated emissions reported. This includes UK consumption of electricity, natural gas, and transport fuels where the company is responsible for the fuels. In addition, ASDA has elected to report their use of liquid fuels (in stationary applications) and greenhouse gas (GHG) emissions associated with their use of refrigerants (included within scope 1 emissions).

The methodology used to calculate emissions is the WBCSD/WRI Greenhouse Gas Protocol: a corporate accounting standard: revised edition in conjunction with UK Government environmental reporting guidelines including SECR guidance, March 2019. Emissions have been calculated using UK Government greenhouse gas emissions conversion factors for company reporting 2021. An operational control approach has been taken.

No formal third-party data verification of the energy and emissions data has been carried out.

4. SECR Energy and carbon emissions summary

ASDA Group Limited's total energy consumption for 2022 period from electricity, natural gas, and transport fuels for which the organisation is responsible is **2,230,990,785kWh**.

This compares with an energy consumption for the previous SECR period 2021 of **2,339,827,054kWh**. The breakdown by energy user and type for 2022 is shown below.

4.1.1. Energy use breakdown

Table 4. Energy consumption by energy use current reporting period 2022

Category	Electricity (kWh)	Gas (kWh)	Other Stationary (kWh)	Transport Fuels (kWh)	Total (kWh)	% Contribution
Building Energy	1,074,402,640	438,033,074	69,812,649	-	1,582,248,364	70.92%
Transport	-	-	-	648,742,420	648,742,420	29.08%
Total	1,074,402,640	438,033,074	69,812,649	648,742,420	2,230,990,785	100%

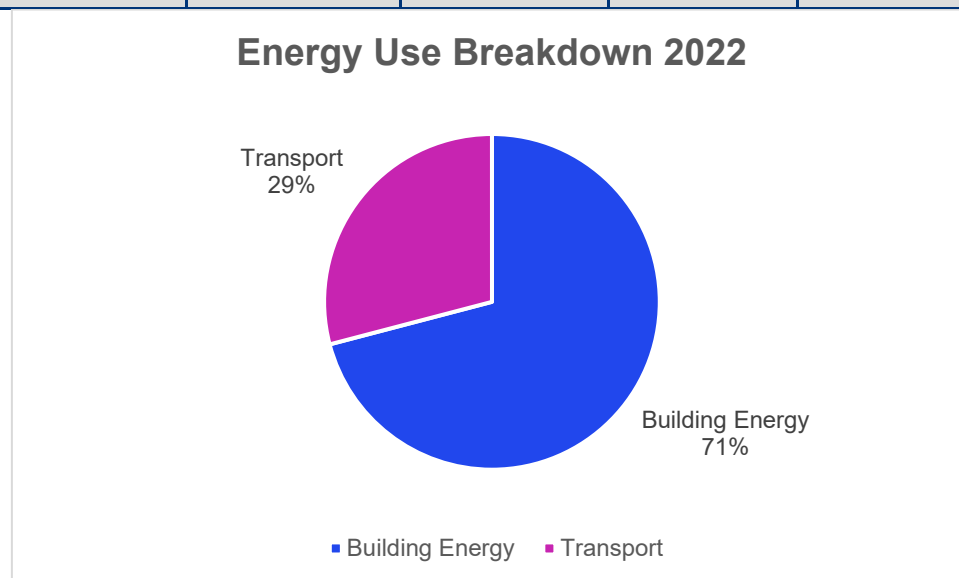


Figure 2. Energy Use breakdown for 2022

4.1.2. Energy Type breakdown

Table 5. Energy consumption by type for current reporting period 2022 compared to 2021

SECR energy summary	Current Reporting Period 2022	Comparison Reporting Period 2021
Electricity consumption (kWh)	1,074,402,641	1,109,312,657
Gas consumption (kWh)	438,033,074	487,251,509
Other stationary consumption (kWh)	69,812,649	97,711,188
Transport fuels energy consumption (kWh)	648,742,420	645,551,700
Total SECR energy consumption (kWh)	2,230,990,785	2,339,827,054

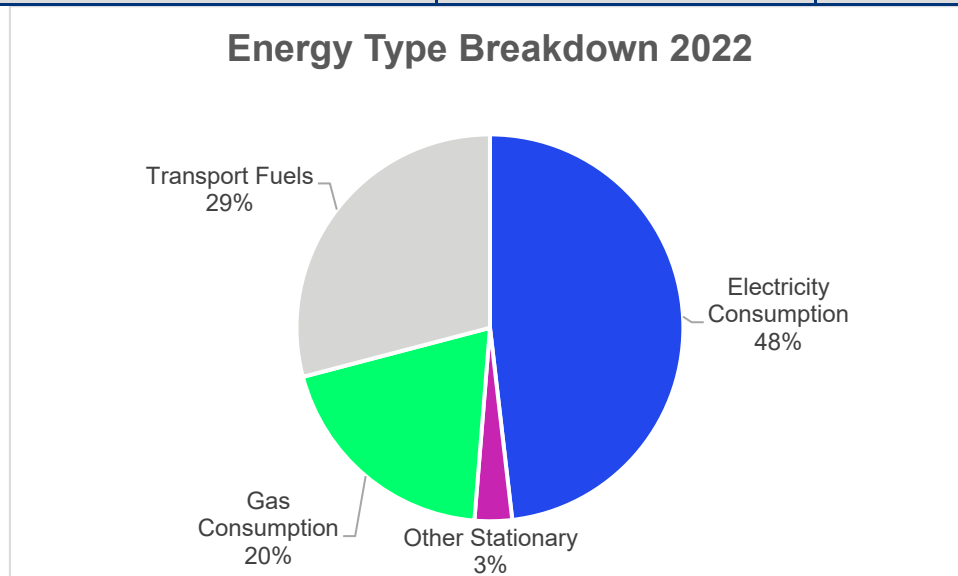


Figure 3. Energy type breakdown

4.2. SECR carbon emissions summary

The carbon emissions associated with the energy consumption are calculated using UK Government GHG conversion factors for company reporting 2022¹. Within the SECR boundary, ASDA Group Limited's gross total GHG emissions scope 1, 2 (location-based) and 3 for the period 2022 are **575,505 tonnesCO₂e**.

For comparison, the total gross GHG emissions scope 1,2 (location-based) and 3 reported for the previous SECR period 2021 were **624,912 tonnesCO₂e**

Table 6. SECR carbon emissions summary

SECR Emissions (tonnesCO ₂ e)	Current Reporting Period 2022		Comparison Reporting Period 2021	
	Value	Percentage	Value	Percentage
Scope 1 emissions (tonnesCO ₂ e)	368,060.34	63.95%	390,131.04	62.43%
Scope 2 emissions (tonnesCO ₂ e)	206,838.66	35.94%	234,548.27	37.53%
Scope 1&2 emissions (tonnesCO₂e)	579,967.66	99.89%	624,679.31	99.96%
Scope 3 emissions - Business Travel where responsible for fuel (tonnes CO ₂ e)	606.39	0.11%	232.84	0.04%
Total Scope 1, 2 & 3 emissions (tonnesCO₂e)	575,505.39	100%	624,912.15	100%

¹ <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022>

4.2.1. SECR carbon emissions by scope

Table 7. Carbon emissions by source for 2022

Scope	Emissions category	Total GHG emissions (tCO ₂ e)	% Contribution
Scope 1	Natural gas, mobile combustion, other stationary, and F-gases	368,060.34	63.95%
Scope 2	Electricity (location-based)	206,838.66	35.94%
Scope 3	Grey Fleet including car hires	606.39	0.11%
Total		575,505.39	100.00%

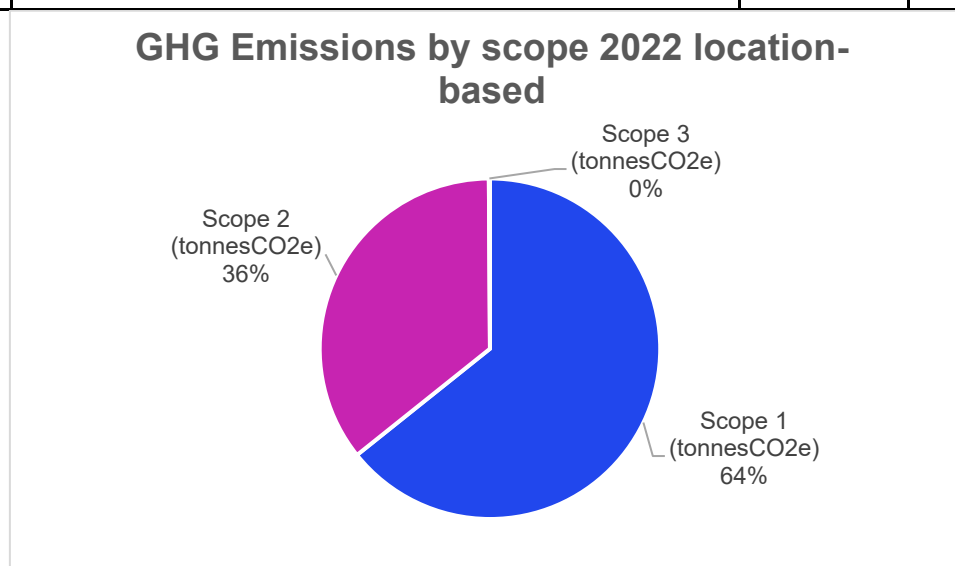


Figure 4. Carbon emissions by scope for 2022 (location-based)

4.3. Emissions Intensity

ASDA Group Limited's has chosen to report its emissions intensity using the metric per £million sales. For 2022, the emissions intensity of total gross emissions (scope 1,2 location-based & 3) is **23.51 tonnes CO₂e per £million sales**. For comparison, the emissions intensity for the period 2021 was **26.61 tonnesCO₂e per £million sales**.

Table 8. Emissions intensity summary comparison with previous reporting period

Detail	2022	2021
Total gross emissions (scope 1,2 and 3 in tonnesCO ₂ e)	575,505.39	624,912.15

Intensity metric (per £million sales)	24,478	23,488
Emission intensity (tonnesCO₂e per million sales)	23.51	26.61

4.4. Energy Efficiency Actions

- Asda has committed to an energy and carbon reduction strategy that aligns with the British Retail Consortium Net Zero route map.
- Asda recognise the important of reducing energy consumption as part of our broader carbon reduction commitment to be Net zero by 2040.
- Reducing energy use is one of the three pillars of our broader Net Zero strategy.
- It commits us to continue to invest at least £10m pa on energy efficiency measures every year.
- We also continue to invest in trials of new technologies and work with external partners and contractors to innovate such as the EU Enough program and Greenskies through our continuous improvement programme.
- We have a target to reduce energy intensity by 40% by 2025 and by 60% by 2035 against a 2010 baseline.
- We look to model intensity headwinds from our inward investment in service offerings and the impact of the transition to electric home shopping vehicles to flag any risk to our corporate targets.
- In 2022 we invested £10.2m in over 1,700 energy efficiency projects touching over 500 stores and depots in our estate. These projects included:
 - Retro fitting doors to refrigerated cabinets
 - Installation of destratification fans
 - New refrigeration control algorithms to optimise performance of centralised refrigerant plant
 - Installation of fan speed controllers on coldroom evaporator fans
 - Hot water pump optimisation to match pump running to hot water use
- We invested in a number of trials including:
 - Cloud based refrigeration control
 - Battery Energy Storage
 - Refrigerant Gas software-based leak detection systems
 - Sintra air distribution solution
 - Low flush WC's and ultra low water use taps
- At the end of 2022 we had reduced our energy intensity by 41.9% from our 2010 baseline so ahead of our 2025 milestone target.

5. SECR summary information for Annual Report

5.1. SECR summary for Annual Report

This section of the report presents the SECR information which needs to be included in the Directors Report (or Strategic Report) of ASDA Group Limited's 2021 Annual Report and filed with Companies House to comply with the Companies (Director's Report) and LLP (Energy and Carbon Report) Regulations 2018.

Example summary wording is presented below to meet the minimum reporting requirements. The UK government is encouraging companies to use the Financial Reporting Council (FRC) Taxonomy for SECR and this reporting structure is also presented.

5.1.1. SECR Summary for Directors Report

ASDA Group Limited is reporting against the Streamlined Energy and Carbon Reporting (SECR) framework for the reporting period is 1st January 2022 to 31st December 2022. ASDA Group Limited is reporting as a 'large' unquoted company and all the minimum requirements have been addressed and are presented here.

The methodology used is the WBCSD/WRI Greenhouse Gas Protocol: a corporate accounting standard revised edition in conjunction with UK Government environmental reporting guidelines including SECR guidance. An operational control approach has been taken. We have used the UK Government greenhouse gas conversion factors for company reporting 2022. Scope 2 emissions from purchased electricity are reported using a location-based approach.

ASDA Group Limited total energy consumption for 2022 is **2,230,990,785kWh**. This includes the company's share of electricity, natural gas, and other stationary usage for all ASDA and IPL operated buildings, and transport fuels for business travel in employee-owned cars and hire cars.

For comparison the energy consumption reported for the previous SECR period 2021 was **2,339,827,054kWh**.

For 2022, the total carbon emissions associated with our reported energy use are **575,505 tonnesCO₂e**. For comparison, the total carbon emissions reported for the previous SECR period 2021 were **624,912 tonnesCO₂e**. The breakdown by emission scope is show below:

Carbon Emissions	2022	2021
Scope 1 emissions (tonnesCO ₂ e)	368,060.34	390,131.04
Scope 2 (location-based) emissions (tonnesCO ₂ e)	206,838.66	234,548.27
Scope 3 emissions – business travel where responsible for fuel (tonnesCO ₂ e)	606.39	232.84
Scope 1, 2 (location-based) and 3 emissions (tonnesCO₂e)	575,505.39	624,912.15

For 2022, our emissions intensity, measured as the total scope 1, 2 and 3 emissions relative to per £million sales **23.72 tonnesCO₂e per £million sales**. For comparison, the emissions intensity for the period 2021 was **26.61 tonnesCO₂e per £million sales**.

There are a couple of clarifications that should be made on the changes between 2021 and the 2022 footprint. With regard to the decrease in scope 1 emissions, this has largely been driven by the decrease reporting of other stationary fuels, including LPG, gas oil, fuel oil, etc. We expect this decrease to result from more supply and price shocks from Ukraine / Russia war.

The large increase in scope 3 business travel emissions is largely down to a return to normal business travel operations post COVID-19 restrictions.

In 2022 we invested £10.2m in over 1,700 energy efficiency projects touching over 500 stores and depots in our estate. These projects included:

- Retro fitting doors to refrigerated cabinets
- Installation of destratification fans
- New refrigeration control algorithms to optimise performance of centralised refrigerant plant
- Installation of fan speed controllers on coldroom evaporator fans
- Hot water pump optimisation to match pump running to hot water use

We invested in a number of trials including:

- Cloud based refrigeration control
- Battery Energy Storage
- Refrigerant Gas software-based leak detection systems
- Sintra air distribution solution
- Low flush WC's and ultra low water use taps

At the end of 2022 we had reduced our energy intensity by 41.9% from our 2010 baseline so ahead of our 2025 milestone target.

5.1.2. Annual Report Summary using FRC's SECR Taxonomy v1.0.0.

Streamlined Energy and Carbon Reporting		Current period 2022	Previous period 2021
Start date for SECR period		01/01/2022	01/01/2021
End date for SECR period		31/12/2022	31/12/2021
Methodology			
<p>All SECR requirements for unquoted 'large' companies have been met with energy consumption and associated emissions reported below. This includes UK consumption of electricity, gas and transport fuels where the company is responsible for the fuels.</p> <p>The methodology used to calculate emissions is the WBCSD/WRI Greenhouse Gas Protocol: a corporate accounting standard: revised edition in conjunction with UK Government environmental reporting guidelines including SECR guidance. Emissions have been calculated using UK Government greenhouse gas emissions conversion factors for company reporting 2022. An operational control approach has been taken.</p> <p>Scope 2 emissions from purchased electricity are reported using a location-based approach. Using a location-based approach, total Scope 2 emissions are 206,839 tonnes CO_{2e}.</p>			
Third party verification			
No third party data verification of the emissions data has been carried out			
Name of third party verifier		n/a	
Reported emissions (and carbon offsets) (tonnes CO _{2e})			
		2022	2021
Total net emissions (location-based)		575,505	624,912
Total gross emissions (Scope 1,2 and 3) under a location-based approach		575,505	624,912
Total direct and indirect emissions (scope 1 and 2) under a location-based approach		574,899	624,679
Total direct (scope 1) emissions		368,060	390,131
Direct emissions (scope 1) stationary combustion		99,815	116,870
Direct emissions (scope 1) mobile combustion		159,700	156,422
Direct emissions (scope 1) from transport fuels		159,700	156,422
Direct emissions (scope 1) from fugitive sources		108,546	116,839
Total indirect emissions (scope 2)		206,839	234,548
Indirect emissions (scope 2) from electricity using a location-based approach		206,839	234,548
Total other indirect emissions (scope 3)		606	233
Other indirect (scope 3) emissions from business travel		606	233
Other indirect (scope 3) emissions from business travel where company is responsible for purchasing fuel		606	233
Energy Consumption (kWh)			
		2022	2021

Energy consumption used to calculate emissions	2,230,990,785	2,339,827,054
Energy consumption, combustion of gas	438,033,074	487,251,509
Energy consumption, electricity	1,074,402,641	1,109,312,657
Energy consumption, combustion of transport fuel	648,742,420	645,551,700
Energy consumption, other (Diesel, Fuel Oil, Gas Oil)	69,812,650	97,711,188
Intensity ratio		
Intensity ratio	23.51	26.61
The reported emissions intensity ratio is the total gross emissions (scope 1,2 and 3 in tonnes CO2e) per £million sales		
Intensity ratio based solely on mandatory data	False	
Energy efficiency action report		
<ul style="list-style-type: none"> Asda has committed to an energy and carbon reduction strategy that aligns with the British Retail Consortium Net Zero route map. Asda recognise the important of reducing energy consumption as part of our broader carbon reduction commitment to be Net zero by 2040. Reducing energy use is one of the three pillars of our broader Net Zero strategy. It commits us to continue to invest at least £10m pa on energy efficiency measures every year. We also continue to invest in trials of new technologies and work with external partners and contractors to innovate such as the EU Enough program and Greenskies through our continuous improvement programme. We have a target to reduce energy intensity by 40% by 2025 and by 60% by 2035 against a 2010 baseline. We look to model intensity headwinds from our inward investment in service offerings and the impact of the transition to electric home shopping vehicles to flag any risk to our corporate targets In 2022 we invested £10.2m in over 1,700 energy efficiency projects touching over 500 stores and depots in our estate These projects included: <ul style="list-style-type: none"> Retro fitting doors to refrigerated cabinets Installation of destratification fans New refrigeration control algorithms to optimise performance of centralised refrigerant plant Installation of fan speed controllers on coldroom evaporator fans Hot water pump optimisation to match pump running to hot water use We invested in a number of trials including: <ul style="list-style-type: none"> Cloud based refrigeration control Battery Energy Storage Refrigerant Gas software-based leak detection systems Sintra air distribution solution Low flush WC's and ultra low water use taps At the end of 2022 we had reduced our energy intensity by 41.9% from our 2010 baseline so ahead of our 2025 milestone target 		
Operational boundaries		
Name of controlled legal entity or facility	ASDA Group Limited (01396513)	
Operational control of legal entity or facility	True	

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