

Sustainability report 2022/23

Sustainability

Introduction

This report includes key carbon management and other environmental sustainability information on how Education Scotland is progressing towards achieving the targets and actions as set out in the Climate Change (Scotland) Act 2009 and amended by The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.

The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 sets out interim targets for Greenhouse gas reductions of at least 75% by 2030 and 90% by 2040 from the baseline levels (1990). For the purposes of emissions reporting, levels from 2014/15 are treated as our baseline, in line with the Public Bodies Climate Change Duties Report.

The full range of annual target percentage reductions from the baseline, is shown in the table below.

2020 (interim target)	56.0%	ES CO2 emissions target (tCO2e)
2021	57.9%	382.3
2022	59.8%	365.0
2023	61.7%	347.8
2024	63.6%	330.5
2025	65.5%	313.3
2026	67.4%	296.0
2027	69.3%	278.8
2028	71.2%	261.5
2029	73.1%	244.3
2030 (interim target)	75.0%	227.0
2031	76.5%	189.9
2032	78.0%	155.8
2033	79.5%	122.9

2034	81.0%	94.9
2035	82.5%	69.9
2036	84.0%	61.2
2037	85.5%	52.9
2038	87.0%	45.2
2039	88.5%	38.0
2040 (interim target)	90.0%	31.3
2041	92.0%	23.7
2042	94.0%	16.7
2043	96.0%	10.5
2044	98.0%	4.9
2045	100% (net-zero emissions)	0.0

Education Scotland monitors its performance to ensure compliance with the above targets and in this sustainability report we record our performance against existing targets to reduce CO₂ emissions, energy and water used in buildings, work-related transport, and waste collected from estate, number of materials recycled and associated costs.






Many of Education Scotland's emissions are related to travel, which is linked to the way our business is carried out. We therefore continue to explore workable solutions as part of our plan to use clean transport.

Our overall sustainability performance has also continued to reflect our hybrid working arrangements which were introduced following the lifting of COVID 19 restrictions. There is not an exact mechanism to measure these changes and therefore the methodology which was described in the [whitepaper produced by EcoAct](#) in partnership with Lloyds Banking Group and NatWest Group, has been adopted to assess our emissions associated with electricity use during Hybrid working

Summary of performance 2022/23

As indicated above, the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 sets interim targets which need to be met to ensure sufficient progress is made towards the overall net-zero emissions deadline in 2045. According to those targets, during 2022/23 Education Scotland has exceeded our target for 2022-23, meeting the emissions reduction target for 2027.

Performance table

Area	Target	Progress made	Status
Overall, Greenhouse gas emissions	Year on year reduction of greenhouse gas emissions in line with the targets as set out in The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.	Carbon total emissions overall have remained much the same this reporting year. This year: Energy – 87.8 (t) Waste – 0.2 (t) Water – 0.3 (t) Travel – 188.8 (t) Total – 277.1 (t)	
Energy	Year on year reduction of energy usage.	Energy consumption decreased due to a reduction of the accommodation in workplace.	
Waste	Year on year reduction of generated general waste.	The report shows emission figures have remained roughly the same as the previous reporting year.	
Water	Year on year reduction in water usage.	Water consumption has increased slightly.	
Travel	Year on year reduction in our level of travel per capita.	Travel is Education Scotland's main contributor to Carbon emissions. The overall level of travel has increased significantly due to external visits being reinstated.	

Carbon footprint table

Reference Year	Year	Scope1	Scope2	Scope3	Total	Units	target
Baseline carbon footprint	2014/15	18	432	458	908	tCO2e	908
Year 1 carbon footprint	2015/16	15	339	483	837	tCO2e	808.12
Year 2 carbon footprint	2016/17	3.65	325.46	327.45	657	tCO2e	708.24
Year 3 carbon footprint	2017/18	4.53	193.87	252.9	451	tCO2e	599.28
Year 4 carbon footprint	2018/19	1.36	127.19	366.27	495	tCO2e	499.4
Year 5 carbon footprint	2019/20	0.54	0	366.72	367.26	tCO2e	399.52
Year 6 carbon footprint	2020/21	0	93.0	10.9	103.9	tCO2e	382.3
Year 7 carbon footprint	2021/22	27.5	92.5	156.6	276.6	tCO2e	365.0
Year 8 carbon footprint	2022/23	0	65	212	277.1	tCO2e	347.8

Greenhouse Gas emissions and energy		2021/22	2022/23
Non-financial indicators (Tonnes CO2e)	Total emissions	202.6	87.8
Related energy consumption (mwah)	Electricity non renewable	88 (homeworking)	82
	Electricity renewable	397 (offices)	224
Financial indicators (£k)	Expenditure on energy (exclusive of VAT)	60	132

Notes: The figures used to work out emissions were calculated by multiplying electricity is kwh by the relevant multiplier as specified in the Greenhouse gas reporting: conversion factors 2022 <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022>

In the Budget on 16 March 2016, the Chancellor of the Exchequer announced that the government has decided to close the CRC scheme following the 2018-19 compliance year.

Greenhouse Gas emissions and energy - performance, targets and commentary

Education Scotland has continued to work in a Hybrid mode of working during this reporting period. Education Scotland uses the Scottish Government appointed supplier of electricity in our office in Dundee, and a property owner appointed supplier in the offices in Livingston and Glasgow.

Tariffs from the Scottish Government appointed supplier are 100% renewable. The property owner's supplier of the Glasgow office has confirmed that the tariff used in Glasgow is 100% carbon offset.

However, there is no practical way to collect this information on tariffs used by staff working from home.

Homeworking calculations methodology

The first variable which must be decided is the hours during which the energy usage must be calculated. We have calculated this by deducting the 30 days of annual leave and 11.5 days for public and privilege holidays from the number of days in a year. We then assumed a standard 5-day, 37hr week (7.4hr/day):

$365 - (30+11.5) = 46.2$ working weeks

46.2 (working weeks) * 4 days per week = 184.8 working days per year

184.8 (days/year) * 7.4 hours = 1,367.52 working hours per year [WHpa]

$1,367.52$ Working Hours / 12 = 113.96 working hours per month [WHpcm]

As explained in the [EcoAct whitepaper](#), the average “in use” power load per desk has been calculated in CIBSE Guide F (2012) as 140W. This allows for a laptop or PC, monitor, phone, and printer. This is the most up to date version of the CIBSE design guide available, and it is still applicable for 2023.

The use of lighting in the home office should also be accounted for so for the purposes of this methodology we have assumed an allowance of 10 Watts for lighting throughout the year.

The White Paper also states that “there is likely to be some additional electricity consumption which could arise through supplementary heating or cooling e.g. desk fans or small portable heaters (instead of using the whole house heating system) but due to the high degree of variability expected, coupled with the low statistical proportion of homes (approximately 3%) reported to use portable electric heating, this is not included within the base case estimation.”

[A] $140W * \# \text{ Hybrid working} * \text{WHpa} / 1000 = \text{Workstation kWh}$

[B] $10W * \# \text{ Hybrid working} * \text{WHpa} / 1000 = \text{Lighting kWh}$

[A] + [B] = Total Electricity

Hybrid Working is calculated

[A] No of days which staff members have been allocated to work from the office or on other activities such as inspection is estimated to be 1 day in 5. Noting this number may differ throughout the year.

[B] No of working days per year 46.2 (working weeks) * 4 days per week = 184.8 Days per staff member

[A] / [B] = 398 Hybrid working staff members * Days

Using the end of February 2023 staffing number of 398 staff members, the calculation for homeworking electricity usage will be:

[A] $140W * 398 * 1367.52 / 1000 = 76,198.00$

[B] $10W * 398 * 1367.52 / 1000 = 5,443.00$

Total estimated electricity usage associated with homeworking = 81,641

Waste and recycling		2021/22	2022/23
Non-financial indicators (tonnes)		13	9
Financial indicators (£k)		4.2	2.1
Greenhouse gas emissions (tonnes)		0.3	0.2

**Waste and recycling
Performance, targets, and commentary**

At the start of the reporting year, it was estimated that the overall waste generation figures would likely be as 2021/22 as staff continued to work from home/or operate hybrid working.

Office related waste figures remain in one of our buildings. This means that emissions related to waste are reported on a similar level as the previous year.

Our major contractor continues to sort general waste to recover any recyclables, and the residue which can't be recycled is made into refuse derived fuel for energy from waste plants to produce heat and power.

Water		2021/22	2022/23
Non-financial indicators (m3)	Consumption	591	722
Financial indicators (£k)	Water supply costs	19	15
Greenhouse gas emissions (tonnes)	Emission factors - 0.344 kg CO ₂ e/m ³ for water supply and 0.708 kg CO ₂ e/m ³ for water treatment (at 95% of total usage)	0.2	0.3

Note: Non-financial indicators include water supplied and water treatment. Water treatment is calculated based on 95% of the total usage.

Water Performance, targets, and commentary

Education Scotland's reported figures are % from the total building usage. This is due to meters serving buildings rather than the office space used by the organisation.

During 2022/23 most of Education Scotland staff were Hybrid working.

Estimation of consumption for staff working from home was not possible, and the above figures relate only to office related water usage.

Travel	2021/22	2022/23
Rail (miles)	45,568	185,238
Rail Greenhouse gas emissions	2.7	10.6
Air (passenger mile)	22,285	103,180
Air Greenhouse gas emissions	8.8	25.5
Motor (miles)	125,310	550,830
Motor Greenhouse gas emissions	62	152.7
Fleet (miles)	0	0
Fleet (diesel) Greenhouse gas emissions	0	0
Financial indicators (£k)	73	323

Travel Performance, targets, and commentary
<p>The introduction of MS Teams has allowed us to work more efficiently and reduce some of our overall travel needs. However, travel continues to be necessary in carrying out Education Scotland’s role in supporting quality and improvement in Scottish education. During 2022/23 our level of travel has increased as we have resumed business activities such as inspection. The overall emission levels resulting from transport has also increased in line with staff returning to hybrid working.</p> <p>Travel will therefore remain an area of focus for Education Scotland, however, future emission levels associated with travel, will be largely dependent on the wider policy on electrification/decarbonisation of transport.</p> <p>Education Scotland continues to take part in the Scottish Government Carbon Emissions Scheme whereby a mandatory £1 levy is charged when a hire car is booked for official business. The levy is returned to the Scottish Government’s carbon levy pot for donation to environmental causes.</p>

Other: Procurement Performance, targets, and commentary
<p>Procurement in Education Scotland is aligned with the Scottish Model of Procurement and the four fundamental principles of public procurement are embedded in all that we do to deliver the organisation’s strategic priorities.</p> <p>Our procurement activity is carried in line with the Sustainable Procurement Duty requirements of the Procurement Reform (Scotland) Act 2014. This requires Education Scotland as a public body to consider how we can improve the economic, social and environmental wellbeing of our area and act in a way to secure improvements found.</p>

Education Scotland's Sustainability Group works across functions to align corporate priorities and timelines to climate change commitments. With senior leadership support, the sustainability group will work together to drive the organisation's transition to lower emission solutions. We will consider the 'do nothing' or the 'do the minimum' option prior to undertaking our procurement activity. We will use the national tools in our procurement exercises to identify priorities where an impact can be made to reducing emissions and include evaluation criteria in our tender processes, where relevant.

Education Scotland have and will continue to enforce a minimum order value for stationery to reduce the number of deliveries. Education Scotland monitor paper usage through our stationery suppliers. Our paper consumption has remained the same as the previous year. Technology will continue to be promoted in Education Scotland to influence reduction in paper consumption along with the reduction of photo copiers within our buildings.

Public bodies Climate change duties reporting

A [Statutory Order](#) came into force on 23 November 2015 requiring public bodies to report annually to Scottish Ministers on their compliance with climate change duties.

The Public Bodies Climate Change Duties Reporting provides a solid basis for tracking public sector action on climate change and driving continuous improvement.

Each year we submit our climate change duties report, detailing the climate change performance of our estate for that budget year.

Education Scotland

Denholm House
Almondvale Business Park
Almondvale Way
Livingston EH54 6GA

T +44 (0)131 244 4330
E enquiries@educationscotland.gsi.gov.uk

www.education.gov.scot

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