

## EDUCATION SCOTLAND SUSTAINABILITY REPORT – 2021-22

### Introduction

Education Scotland was established on 1 July 2011 as an Executive Agency of Scottish Ministers under the terms of the Scotland Act 1998.

This report includes key carbon information on Education Scotland's progress 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). While Education Scotland will be replaced by a new national agency for education in 2024, we continue to work towards these targets.

For the purposes of emissions reporting, levels from 2014/15 are treated as baseline, in line with the Public Bodies Climate Change Duties Report. The full range of targets representing percentage reduction from the baseline, is shown in the table below.

<b>2020 (interim target)</b>	<b>56.0%</b>	<b>ES CO2 emissions target (tCO2e)</b>
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
<b>2030 (interim target)</b>	<b>75.0%</b>	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
<b>2040 (interim target)</b>	<b>90.0%</b>	31.3
2041	92.0%	23.7
2042	94.0%	16.7
2043	96.0%	10.5
2044	98.0%	4.9
<b>2045</b>	<b>100% (net-zero emissions)</b>	0.0

Education Scotland monitors its performance to ensure compliance with the above targets.

The majority of Education Scotland’s emissions have historically been related to travel, which is directly linked to the way our business has, with the exception of during the pandemic, been carried out. We will therefore continue to explore possible solutions as part of our plan to use clean transport, including investigating the possibility of revising our travel policy to ensure that all rented cars are electric.

In this sustainability report Education Scotland shows its performance against existing targets to reduce CO<sub>2</sub> emissions, energy and water used in buildings, work-related transport, and waste collected from estate, amount of materials recycled and associated costs.


### Summary of performance 2021/22






During the reporting year the Agency’s overall sustainability performance has been influenced by the pandemic and its continued impact on our way of working.

Working from home has continued to present challenges with regards to assessing the real impact of the organisation’s emissions. There is no accurate mechanism to measure this, 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 homeworking.

In considering the table below, it is also important to note that with more staff returning the office, our carbon emissions have increased in 2021-22 relative to last year. However, we continue to exceed the targets set. Indeed, during 2021/22 Education Scotland has met the emissions reduction required by year 2026.

#### Performance table

Area	Target	Progress made	Status
<b>Overall Greenhouse gas emissions</b>	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 emissions have increased from the last reporting year but remain within target levels.  This year: <a href="#">Energy</a> – 202.6 (t) <a href="#">Waste</a> – 0.3 (t) <a href="#">Water</a> – 0.2 (t) <a href="#">Travel</a> – 73.5 (t)	

		Total – 276.6 (t)	
<a href="#">Energy</a>	Year on year reduction of energy usage.	Energy consumption increased by 18% across Education Scotland from the previous year but remains within target levels.  Total emissions associated with use of electricity have increased from the previous year. This is due to homeworking, for which it is assumed that standard tariffs are used (not 100% renewable).	
<a href="#">Waste</a>	Year on year reduction of generated general waste.	The report shows these figures have remained the same as 2020/21.	
<a href="#">Recycling</a>	Year on year increase in waste recycled.	This was achieved through the reconfiguration and reduction of accommodation space in the offices.	
<a href="#">Water</a>	Year on year reduction in water usage.	Water consumption has increased slightly by 3% from the last reporting year. This is due to staff returning to offices in the last half of the reporting year.	
<a href="#">Travel</a>	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 this year due to the gradual return of external visits but remains within target levels.	

### 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

Greenhouse Gas emissions and energy		2020/21	2021/22
<b>Non-financial indicators (tonnes CO2e)</b>	Total emissions	93.0 – amended figure	202.6
<b>Related energy consumption (mWh)</b>	Electricity non renewable	88 (homeworking)	88 (homeworking)
	Electricity renewable	367 (offices)	397 (offices)
<b>Financial indicators (£k)</b>	Expenditure on energy (exclusive of VAT)	62	60
<p>Notes: The figures used to work out emissions were calculated by multiplying electricity is kwh by the relevant multiplier as specified in the <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020">Greenhouse gas reporting: conversion factors 2020 - GOV.UK (www.gov.uk)</a></p> <p>In the Budget on 16 March 2016, the Chancellor of the Exchequer announced that the government had decided to close the CRC scheme following the 2018-19 compliance year.</p>			
<b>Greenhouse Gas emissions and energy - performance, targets and commentary</b>			
<p>Due to the COVID-19 pandemic, Education Scotland colleagues continued working from home for the majority of the reporting year.</p>			

Education Scotland uses the Scottish Government appointed supplier of electricity in offices in Dundee and Livingston, and a landlord appointed supplier in our office in Glasgow.

Tariffs from the Scottish Government appointed supplier are 100% renewable. The landlord of the Glasgow office has confirmed that the tariff used in Glasgow is 100% carbon offset. However, there is no viable way to collect this information regarding tariffs used by staff at home.

### **Homeworking calculations methodology**

The first variable which must be determined 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):

$$365 - (30+11.5) = 46.2 \text{ working weeks}$$

$$46.2 \text{ (working weeks)} * 5 \text{ days per week} = 231 \text{ working days per year}$$

$$231 \text{ (days/year)} * 7.4 \text{ hours} = 1,709.4 \text{ working hours per year [WHpa]}$$

$$1,709.4 \text{ Working Hours} / 12 = 142.45 \text{ working hours per month [WHpcm]}$$

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.

The use of lighting in the home office should also be accounted for and 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.”

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

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

$$[A] + [B] = \text{Total Electricity}$$

Hybrid Working is calculated

[A] No of workstations booked (1885 + 10%) = 2073.5 days

[B] No of working days per year 46.2 (working weeks) \* 5 days per week = 231

[A] / [B] = 9 FTE Totals full time office working

Education Scotland reports 351.15 FTE during the year 2021/22 minus 9 full time office working = 342.15

therefore the calculation for homeworking electricity usage will be:

[A]  $140W * 342.15 * 1,709.4 / 1000 = 81,882$

[B]  $10W * 342.15 * 1,709.4 / 1000 = 5,849$

Total estimated electricity usage associated with homeworking = 87,731

1. Waste and recycling		2020/21	2021/22
<b>Non-financial indicators (tonnes)</b>	Total volume of waste (not inc. construction)	13	13
	Non-hazardous waste	13	13
	Hazardous waste	0	0
<b>Financial indicators (£k)</b>	Total waste disposal cost	4.2	12.7
<b>Greenhouse gas emissions (tonnes)</b>	Emissions	0.3	0.3
<b>Waste and recycling</b>			
<b>Performance, targets and commentary</b>			
<p>At the start of the reporting year, it was estimated that overall waste generation figures would be similar to 2020/21 due to staff continuing to work from home. Office related waste figures remain only in one of our buildings, throughout the year. This means that emissions related to waste are reported on a similar level to the previous year.</p> <p>Education Scotland has also worked with the service contractor to ensure the accuracy of figures from 2021/22. Our reports now show the actual collection weight.</p>			

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.

2. Water		2020/21	2021/22
<b>Non-financial indicators (m3)</b>	Consumption	575	591
<b>Financial indicators (£k)</b>	Water supply costs	20	19
<b>Greenhouse gas emissions (tonnes)</b>	Emission factors - 0.344 kg CO <sub>2</sub> e/m <sup>3</sup> for water supply and 0.708 kg CO <sub>2</sub> e/m <sup>3</sup> for water treatment (at 95% of total usage)	0.2 – amended figure	0.2

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

Figures now include the Dundee office.

## 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 2021/22 the majority of Education Scotland staff worked from home. Estimation of consumption for staff working from home was not possible and the above figures relate only to office related usage.

Sensor Zip taps have recently been installed in two of our offices to reduce water wastage.



<b>3. Travel</b>	<b>2020/21</b>	<b>2021/22</b>
<b>Rail (miles)</b>	58	45,568
<b>Rail Greenhouse gas emissions</b>	0	2.7
<b>Air (passenger mile)</b>	209	22,285
<b>Air Greenhouse gas emissions</b>	0.1	8.8
<b>Motor (miles)</b>	2,945	125,310
<b>Motor Greenhouse gas emissions</b>	0.8	62
<b>Fleet (miles)</b>	0	0
<b>Fleet (diesel) Greenhouse gas emissions</b>	0	0
<b>Financial indicators (£k)</b>	5	73

### **Travel**

#### **Performance, targets and commentary**

Travel is necessary in carrying out Education Scotland's role in supporting quality and improvement in Scottish education. During 2021/22 our level of travel has increased on the last reporting year. The overall emission levels resulting from transport has increased in line with staff moving to hybrid working.

Education Scotland continues to participate 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.

Travel will remain an area of focus for Education Scotland, however, future emission levels associated with travel will be largely dependent on the wider policy regarding electrification/decarbonisation of transport.

MS Teams has played a crucial role during the COVID-19 pandemic and it has been shown that Education Scotland can utilise it more efficiently in order to reduce some of the overall travel needs.

#### **Other: Procurement**

## Performance, targets and commentary

Education Scotland follows the Scottish Government's principles of procurement and our procurement policy includes a requirement to ensure that contract specifications reflect the Scottish Ministers approach to sustainability and where appropriate form part of the evaluation of tenders and conditions of contract.

Education Scotland recognises the importance of a good procurement service in helping us deliver our objectives.

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.

## 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 financial year.

**Gayle Gorman**  
Chief Executive

22/05/2022

