

Arun District Council

REPORT TO:	Policy and Finance Committee – 11 December 2024
SUBJECT:	Carbon Emission update – 2023-2024 financial year
LEAD OFFICER:	Joe Russell-Wells, Group head of Environment and Climate Change, (presenting) Will page, Climate Change and Sustainability Officer
LEAD MEMBER:	Councillor Martin Lury, Committee Chair
WARDS:	All

CORPORATE PRIORITY / POLICY CONTEXT / CORPORATE VISION:

This work supports one of the key areas within the Council's vision 2022-2026 by: supporting our environment to support us

- Develop and implement the Carbon Neutral Strategy and Climate Change and Biodiversity Strategies for the council and the wider district through Planning Policy
- Review the council's estate and seek to maximise the use of renewable or alternative energy generation, including the installation of Electric Vehicle (EV) changepoints
- Engage and incentivise business to commit to working practices which minimise their impact on the environment
- Support information campaigns that promote carbon reductions and funding opportunities
- Working with our community improve waste reduction and recycling to meet future targets of 55% recycling by 2025 and 60% by 2030
- Ensuring that climate change and sustainability is at the heart of all council services

DIRECTORATE POLICY CONTEXT:

Improve and support the Council's target to become carbon neutral by 2030.

FINANCIAL SUMMARY:

A budget of £80,000 was allocated for the 2023-2024 financial year to help support activities which reduce the Council's carbon emissions. Of this £13,933 was used for consultants to undertake work around emission monitoring. This also included additional work around a review of top suppliers and ways to determine which areas would be best to focus on to allow for the fastest/most significant reduction, as well as highlighting future reductions and alignment with the Council's 2030 target.

1. PURPOSE OF REPORT

- 1.1. This report provides an update on the emissions (Scope 1, 2 and 3) of the Council for the 2023-2024 financial year.

2. RECOMMENDATIONS

- 2.1. It is recommended that the Committee considers the report and provides any observations to officers.

3. EXECUTIVE SUMMARY

- 3.1. The Council's current vision document has one of its four key themes being 'supporting our environment to support us'. This showcases that climate change and sustainability is at the forefront of activities going on within the Council. To support this vision and the work going on with the Climate Change and Biodiversity Action plan, this report will provide an update on the Council's Scope 1, 2 and 3 emissions for the 2023-2024 financial year, when compared to the baseline.
- 3.2. It should be noted that a different consultant was appointed to undertake the analysis for the 23-24 financial year than that of the baseline year. A multi-year contract has been put in place to ensure that year-on-year analysis going forward is undertaken by the same consultant to ensure that when comparing these results, they are more comparable.
- 3.3. Results provided will also be influenced by the quality of data issued by the Council. Improvements to quality of data is also being undertaken as part of this work. Emission reporting is not an exact science, but the greenhouse gas protocol has been followed to ensure as accurate results as possible.
- 3.4. When comparing the 23-24 financial year to the baseline year (2020-2021 financial year) there has been a 41.4% reduction in emissions across all 3 scopes. Scope 1 and 2 has seen a 65% reduction, with scope 3 having a 41.1% reduction. Looking at the two largest emitters, purchased goods and services has seen a 40.7% reduction, and leisure centres 0.6% reduction. However, as per 3.2 it should be noted that a different methodology was used between these two years, and as a spend based approach is being utilised purchased goods and services will be solely based on how much the council spends on this for each period. A full set of results can be seen in Appendix A and B.

4. DETAIL

- 4.1. In January 2020 Full Council declared a Climate Emergency and announced its ambition for Arun District Council to be carbon neutral by 2030 (Decision Notice C/029/091219). A Climate Change and Sustainability Manager was appointed in February 2021. Following this the first carbon audit was undertaken for the 2020-2021 financial year which was used to inform the Carbon Neutral Strategy 2022-2030 (adopted in October 2021) and the Climate Action and Biodiversity Work Plan 2022-2023 (adopted in February 2022). The Council's current vision document also showcases one of its four key pillars as ensuring we 'support our

environment to support us'. This showcases that climate change and biodiversity is at the forefront of the Council's activities.

- 4.2. Within the Climate Change and Biodiversity Work Plan there was a commitment to undertake yearly monitoring of emissions to ensure that the Council can effectively monitor how its activities are impacting these emissions. This included:
- 4.3. Scope 1 - emissions directly attributed to burning of fuels
- 4.4. Scope 2 - indirect emissions from the generation of purchased electricity and directly controlled by the Council
- 4.5. Scope 3 emissions - from the activities of the Council but occur from sources not owned or controlled by the Council. Examples of emitters include purchased goods and services (procurement), staff commuting, business travel and waste (generated by the Council).
- 4.6. The Council's housing stock and residential waste has not been included within the 2030 carbon neutral target, but these emissions are still tracked within this work.
- 4.7. Purchased goods and Services (within Scope 3) is extremely difficult to quantify, for this reason it is often not included within organisations carbon neutral/net zero targets. The Council currently use spend based data to quantify these emissions, though work is actively going on to transition to a method that would improve the quality of results. However, as this involves supplier engagement it is difficult to implement quickly.
- 4.8. Results showcased the following changes; these have been compared against our baseline year (2020-2021).
- 4.9. **Scope 1 and 2**
- 4.10. Gas (Scope 1) results show a slight increase in tons of Carbon dioxide equivalent (tCo2e) from 132 tCo2e in 2020-2021 to 137 tCo2e in 2023-2024. This is likely due to changes in heating occurring within the Council's buildings. More significant reductions will be possible if there are improvements to building fabric and a transition to heat pumps (electric heating). Reductions within this area will be extremely costly as they revolve around building improvements. Feasibility studies have been undertaken to help guide officers on improvements that could be undertaken. Moreover, another option to reduce emissions in relation to scope 1 would be to reduce the buildings utilised by the Council for office space. To consider this in more detail an officer review is also currently underway to help determine the best use of the office space currently owned by the Council. An officer was appointed to do this work across 18 months from September 2024 with results likely in 2026. If this work indicates a reduction of office space is achievable, we will see a fall in scope 1 emissions.
- 4.11. Petrol/diesel (Scope 1) shows a reduction in tCo2e, decreasing from 43 tCo2e to 33 tCo2e. Of the current 28 vehicles, 14 are now electric. As technology evolves and suitable vehicles become available the remaining diesel vehicles will be replaced with more environmentally friendly alternatives. This transition

will help to reduce emissions associated with the vehicle fleet. HVO fuel is being considered as a more sustainable fuel for these vehicles, however this would require the Council to storage fuel on one of its sites as HVO is not available at petrol stations. Additionally, 8 out of the 14 diesel vehicles are on shorter 3-year lease terms, so there is potential to transition these to electric alternatives in 2027.

- 4.12. The Council's electricity (Scope 2) continues to be sourced from 100% REGO (Renewable Energy Guarantees of Origin) certified supplies. As we have continued to report using the market-based approach, scope 2 emissions remain at 0. The Council will continue to look for more reliable sources of locally produced renewables. Best practise would be for the installation of PV arrays within Arun with energy produced utilised by the Council. This would not only improve quality of renewables utilised but will also help the Council migrate away from grid dependency and protect it from sharp increases of electricity costs, as seen during the energy crises. A study has also been undertaken to determine the feasibility of installing additional PV at the Littlehampton Wave. Results of this are still being reviewed and next steps are yet to be determined. Officers are also looking at other sites for potential PV installation. Please note that this is separate to the PV being installed through the swimming pool support fund.
- 4.13. Overall, Scope 1/2 emissions have reduced from 392 tCo2e in 2020-2021 to 137 tCo2e in 2023-2024 and has seen a fall in total emissions to 0.83% of the Council's total emissions in 2023-2024, when compared to 1.4% in 2020-2021 (baseline year). By following actions within the Biodiversity and Action plan there is potential for these to be even further reduced. However as noted in paragraph 4.10 it will be extremely difficult to reduce these emissions unless there is significant investment in council properties and PV arrays, or if the use of office space is reduced, following the building review currently being undertaken.
- 4.14. **Scope 3**
- 4.15. Purchased goods (Scope 3) have seen a reduction in emissions, from 25,066 tCo2e in 2020-2021 to 14,866 tCo2e in 2023-2024. This remains Arun's largest emitter now sitting at 91% of total emissions, from 90.25% in 2020-2021. Though this shows reduction as we are utilising a spend based approach this is due to total spend on purchased goods and services reducing between these years. Therefore, this is an area which needs to continue to be looked at with increasing urgency and commitment. Work is underway to take forward suggestions provided by the deep dive which took place last year, using emission results from the 22-23 financial year. This includes the production of a sustainable charter, officer guidance and an action plan to track/highlight work; as well as looking to engage with suppliers and incorporating sustainability into procurement processes.
- 4.16. Our highest spend contract is the 'Combined Cleansing Services Contract' (CCSC), provided by Biffa; as we currently use a spend based approach for emission reporting this is also our largest emission contributor. The agreed 3-year short term extension has been a holding position, and Biffa has been able

to provide a full fleet of electric supervisor vehicles and a 26-ton electric refuse collection vehicle for the collection of dry recycling

- 4.17. Central government has confirmed the requirement to provide food waste collection from 2026. Following Environment Committee approval food waste collection has been included in the new CCSC and this procurement is underway. As emissions are currently only based on spend data, a key change is the requirement to provide the Council with contract specific related emissions. This will be used to increase accuracy of the annual carbon audit. Where possible a similar approach will also be taken with other contracts.
- 4.18. Fuel/energy outside of Scope 1/2 (Scope 3) has seen a slight increase of emissions, from 35.82 tCo2e in 2020-2021 to 43 tCo2e in 2023-2024. These are the emissions associated with transmission losses for purchased electricity and the transport of gas (well to tank) and are standard values. The Council could reduce part of these by ensuring renewable energy is generated on site, as well as reducing energy consumption. Additionally, the purchase of extra REGO certification can help reduce the electric aspect of this.
- 4.19. There has been a change in how Council waste and water/sewage emissions have been calculated and how emissions will be reported going forward, when compared to how this has been done to the baseline year. From the 2022-2023 financial year these will now be displayed together. When comparing this emitter, the baseline year (2020-2021) showed this generate 96.02 tCo2e, this has decreased to 11 tCo2e during the 2023-2024 financial year. Exact waste weights were used to calculate emissions for the 23-24 financial year.
- 4.20. Business Travel (Scope 3) has seen a reduction in emissions. In 2020-2021 this produced 36 tCo2e, compared to just 2 tCo2e in 2023-2024. Due to the continued standard of working from home and meeting virtually, employee commuting emissions have remained low. Additionally, this will help improve air quality within the district as well as helping reduce congestion on the roads. Though it should be noted that data collection for these two emitters is weak. To improve commuting results staff surveys would be required to get a better understanding on how staff travel to/from work and at what frequencies. For business travel more granular details will be required from claim forms. This could include miles travelled, what type of vehicle is used (if applicable) and fuel type.
- 4.21. The Council's Leisure Centres (Scope 3) have seen a drop in emissions, falling from 1,051 tCo2e in 2020-2021 to 1,045 tCo2e in 2023-2024. Freedom Leisure is actively engaged with this process and is currently the only supplier who is providing exact energy usage.
- 4.22. Freedom Leisure is also promoting energy saving and lean measures to reduce energy demand and boost energy efficiency throughout its facilities and on its website: [Your local community leisure centre & the energy crisis](#) and it is closely monitoring customer feedback.

4.23. Scope 3 continues to be the largest source of emissions for the Council sitting at 98.11%, with the two largest single emitters continuing to be: purchased goods and services (91%) and leisure centres (6%). Though these are the largest two emitter It will be important to ensure emissions are reduced across all Scopes to reach the 2030 Carbon Neutral target.

4.24. **Conclusion**

4.25. Overall total emissions have been reduced across the Council, from 27,774 tCo2e in 2020-2021 to 16,255 tCo2e in 23-24, or a 41.4% decrease. Looking at a comparison between the two latest financial year periods, in 22-23 total emissions sat at 18,007 tCo2e, compared to 16,255 tCo2e in 23-24, resulting in a 9.7% reduction from 22-23 and 23-24. Please see appendix A for the full set of results for the 2020-2021 (baseline) and 2023-2024 financial years, and appendix B for the comparisons across all 4 years. Please do note that a different consultant was used for the baseline year emissions and the most recent analysis. The results when comparing the two periods show a step in the right direction, but not at a fast enough rate. If this reduction does not see a sharp increase in the coming years, the 2030 Carbon Neutral target is unlikely to be reached. Offsetting will therefore likely be needed to ensure the target is reached. There are numerous options across the world, though the Council will always seek to utilise local opportunities, where available. It is likely that the cost per tCo2e 'offset' will increase in the coming years. Conversation is currently underway with WSCC and other West Sussex District and Boroughs to determine the best offsetting option.

4.26. Members will be aware that the threat of climate change continues to grow, and therefore it is important that the Council continues to work to reduce its emissions and impact on the environment, and where possible, support those within the wider District to do so as well. Continued work will be undertaken to ensure that Scope 1, 2 and 3 emissions are reduced, with a particular focus on purchased goods and services along with the leisure centres as these are currently the two largest emitters for the Council. Additionally, improvements to data collection and sourcing will also be taken forward.

4.27. To help make emissions tangible, according to the WWF carbon footprint calculator ([WWF Footprint Calculator](#)) the average UK citizen footprint for 2022 is roughly 9.5 tCo2e, compared to the world average at 6.3 tCo2e. 1 tCo2e is equal to: using 5,171 kWh of electricity which could power the average mid-terrace house or flat for roughly a year and 10 months, 500 CO2 fire extinguishers or driving a small petrol car for 9,234km. In turn to remove just 1 tCo2e you would need 50 trees growing for a year ([What is 1 Ton of Carbon Dioxide and how it relates to daily life? - EMSmastery](#)).

4.28. The Climate Change and Biodiversity Action plan will be revised in accordance with these updated results along with updates to specific actions. This will be brought to the Policy and Finance committee in March 2025.

5. CONSULTATION

5.1. No consultation has been required at this stage.

6. OPTIONS / ALTERNATIVES CONSIDERED

6.1. There are no alternative options to be considered.

7. COMMENTS BY THE GROUP HEAD OF FINANCE/SECTION 151 OFFICER

7.1. As stated in the Financial Summary, a budget of £80,000 was allocated for the 2023-2024 financial year in order to help support activities which reduce the Council's carbon emissions.

8. RISK ASSESSMENT CONSIDERATIONS

8.1. There is no direct impact on the above areas arising from this report.

9. COMMENTS OF THE GROUP HEAD OF LAW AND GOVERNANCE & MONITORING OFFICER

9.1. There are no direct legal implications arising from this report.

10. HUMAN RESOURCES IMPACT

10.1. There is currently no human resources impact as a result of this report. However, any future proposals to amend business travel arrangements and subsequent reimbursement will require consultation with both staff and the union.

11. HEALTH & SAFETY IMPACTS, PROPERTY & ESTATES IMPACT, EQUALITIES IMPACT ASSESSMENT (EIA) / SOCIAL VALUE, CRIME AND DISORDER REDUCTION IMPACT, HUMAN RIGHTS IMPACT, FREEDOM OF INFORMATION / DATA PROTECTION CONSIDERATIONS

11.1. There are no direct impacts arising from this report

12. CLIMATE CHANGE & ENVIRONMENTAL IMPACT/SOCIAL VALUE

12.1. Though there will be no direct reduction from this report the results from this analysis will provide the Council with vital information around sources of emissions. This will, in turn, be used to inform next steps and ensure that the Council remains on track to hit the 2030 carbon neutral targets.

12.2. Impacts will be seen across the Council in all areas and departments.

CONTACT OFFICER:

Name: Will Page

Job Title: Climate Change and Sustainability Manager

Contact Number: 07824087865

Contact Email: william.page@arun.gov.uk

BACKGROUND DOCUMENTS:

Officer report Carbon Neutral Strategy 2022-2030 - [AGENDA ITEM NO \(arun.gov.uk\)](#)

ADC Carbon Neutral Strategy 2022-2030 - [Item 7 - Carbon Neutral Strategy - Appendix.pdf \(arun.gov.uk\)](#)

Appendix A

Scope	Emitter	Year (financial)	Carbon (tonnes of CO2e)	% Emissions	
One and two	Gas	20-21	132	0.48	
		23-24	104	0.64	
	Petrol/diesel	20-21	43	0.16	
		23-24	33	0.2	
	Electricity	20-21	216	0.78	
		23-24	0	0	
SCOPE 1/2 TOTAL		20-21	392	1.4	
		23-24	137	0.83	
Three	Purchased goods	20-21	25,066	90.25	
		23-24	14,866	91	
	Fuel And Energy (upstream)	20-21	35.82	0.13	
		23-24	43	0.03	
	Council Waste	20-21	16	0.06	
		23-24	11	0.07	
	Business Travel	20-21	36	0.13	
		23-24	2	0.01	
	Employee commuting	20-21	397	1.43	
		23-24	150	1	
	Leisure Centre	20-21	1,051	3.79	
		23-24	1,045	6	
	SCOPE 3 TOTAL		20-21	27,382	98.6
			23-24	16,118	98.1
COUNCIL TOTAL		20-21	27,774	-	
		23-24	16,255	-	

Table 1 shows the results from the 2020-2021 (baseline) and 2023-2024 financial year.

Appendix B

Scope	Emitter	Financial year	Carbon (tonnes of CO2e)	% emissions
One and two	Gas	20-21	132	0.48
		21-22	164	0.60
		22-23	134	1
		23-24	104	0.64
	Petrol/diesel	20-21	43	0.16
		21-22	41	0.05
		22-23	36	0.19
		23-24	33	0.2
	Electricity	20-21	216	0.78
		21-22	0	0
		22-23	0	0
		23-24	0	0
SCOPE 1/2 TOTAL		20-21	392	1.4
		21-22	205	0.75
		22-23	170	1
		23-24	137	0.83
Three	Purchased goods	20-21	25,066	90.25
		21-22	24,771	91.20
		22-23	16,463	91
		23-24	14,866	91
	Fuel And Energy (upstream)	20-21	35.82	0.13
		21-22	28.11	0.10
		22-23	203	1
		23-24	43	0.03
	Water/Sewage	20-21	80	0.29
		21-22	103.53	0.38
		22-23	Now included within Council Waste	
		23-24		
	Council Waste	20-21	96	0.35
		21-22	124	0.46
		22-23	16	0.09
		23-24	11	0.07
	Business Travel	20-21	36	0.13
		21-22	11	0.04
		22-23	1	0.01
		23-24	2	0.01
	Employee commuting	20-21	397	1.43
		21-22	397	1.46
		22-23	145	1
		23-24	150	1
	Leisure Centre	20-21	1,051	3.79
		21-22	995	3.66
		22-23	1,009	6
		23-24	1,045	6
Investments	20-21	700	2.52	

		21-22	628.96	2.32
		22-23	No longer reporting as insignificant	
		23-24		
SCOPE 3 TOTAL		20-21	27,382	98.6
		21-22	26,956	99.2
		22-23	17,837	99.1
		23-24	16,118	98.11
COUNCIL TOTAL		20-21	27,774	-
		21-22	27,162	-
		22-23	18,007	-
		23-24	16,255	-

Table 2 shows the results from all four years, the 20-21 financial year is the council's baseline.