

**Corporate Greenhouse Gas Emissions Report 2023/24**

**Introduction**

In 2019 St Albans City and District Council (SADC) declared a climate emergency and set a target to eliminate corporate greenhouse gas emissions by 2030. Baseline emissions were calculated in 2008/09 and have since been reported on an annual basis. This analysis includes emissions from corporate gas and fleet (scope 1), electricity (scope 2), homeworking of staff, business travel and the energy and travel of our three largest contractors (scope 3). The calculations do not include emissions from waste, water, products or commuting.

For more information on how we calculate our corporate greenhouse gas emissions, see Appendix 1. This report will evaluate our progress towards our 2030 target and consider our next steps. The Statement of Emissions can be found in Appendix 2.

**Headlines**

* Total emissions for 2023/24 were measured to be 3,603 tCO2e.
* To be on track with our target, we were aiming to have reduced emissions by -64% since the baseline year and -22% since our previous year.
* The reduction achieved since the baseline is -51%.
* No reduction has been achieved since the previous year. Emissions have increased by 5%.
* We are behind our target with corporate gas use (-57%) and contractor services (-38%).
* We are on track with our 64% reduction aim for corporate transport (-86%), corporate electricity use (-83%), and business travel (-78%).
* To get back on track, we need to reduce emissions by 1,392 tCO2e between 2023/24 and 2024/25, this is a 39% reduction on our current footprint.

**Our Targets**

In 2019, SADC declared a climate emergency and set a target to eliminate corporate greenhouse gas emissions by 2030. In our [Sustainability and Climate Strategy (2020-2023)](https://www.stalbans.gov.uk/sites/default/files/attachments/FINAL%20SADC%20Sustainability%20and%20Climate%20Crisis%20Strategy.pdf), we established these milestones to guide progress to our 2030 target:

* Reduce emissions by 51% from the baseline year by 2021/22
* Reduce emissions by 70% from the baseline year by 2024/25
* Reduce emissions by 80% from the baseline year by 2026/27

The graph below maps out these milestones and what they mean in terms of actual emissions.

**Figure 1. Actual Emissions vs. Target Emissions and Milestones 2008/09 – 2029/30**

By this reporting period, **we were aiming for a cumulative reduction of at least 64%** from the baseline year, this is equal to emissions of 2,677 tCO2e or less. Actual emissions were measured to be 3,603 tCO2e, which is a reduction of 51%. This means that while emissions are now half of what they were during our baseline year, we are not on track with our milestones to Net Zero by 2030. We are currently 2 years behind our goal.

As we have been behind target for most recent reporting periods (excluding those affected by COVID-19), we will now need to reduce emissions at a greater rate if we are to reach our milestones on time and achieve our 2030 target. To get back on track with our original reduction trajectory, we would need to reduce emissions by 1,392 tCO2e between 2023/24 and 2024/25.

**Category Analysis**

**SCOPE 1: CORPORATE GAS USE**

This category includes emissions that arise from natural gas combustion for heating purposes in buildings owned or controlled by SADC.

**Change in emissions**

|  |  |
| --- | --- |
| Baseline Emissions: 1,613 tCO2e  Previous Year Emissions: 651 tCO2e  Current Emissions: 695 tCO2e | Total reduction required: -64% / 1,032 tCO2e  Total reduction achieved: -57% / 917 tCO2e |

Gas emissions are directly tied to gas consumption, with small differences between the change in consumption and change in emissions arising from year-on-year differences in the emissions produced per kWh of gas consumed.

**Figure 2. Gas Consumption and Emissions 2009/09-2023/24**

Properties in the Housing category (which includes communal areas predominantly) make up the majority of SADC’s total gas consumption (78% of all gas consumed since the baseline year) and therefore has a large effect on total consumption figures. Housing consumption has decreased by 56% since the baseline year but increased by 17% from the previous year.

**Figure 3. Gas Consumption by Property Group 2008/09-2023/24 (Housing Only)**

There have also been decreases in gas consumption for all other property groups since the baseline year but increases since the previous year for Commercial Properties (19%) and District Offices (5%). These increases do not reflect weather patterns [[1]](#footnote-2)as the 2023/24 winter was warmer than average despite the occasional cold snap and 10 named storms.

**Figure 4. Gas Consumption by Property Group 2008/09-2023/24 (All other property categories)**

20 gas accounts have been lost and 6 gained since our baseline year. The removal/addition of these accounts has caused a 48% reduction in gas consumption since the baseline year. This means we can attribute just 8% of the reduction in consumption since the baseline year to *actual* reductions (e.g. as a result of energy efficiency improvements) in the gas consumption of current accounts rather than account closures.

For further analysis of gas emissions on a per-property basis, see Appendix 3.

**Progress**

SADC has been actively pursuing funding to implement energy efficiency improvements across the Housing Revenue account. By July 2025, successful funding bids will have enabled the improvement of 920 properties. Whilst the Council does not manage the energy bills for these properties (and therefore does not include the emissions in this corporate emissions analysis), these improvements will have a positive impact on the quality of life of residents as well as reducing community-wide emissions.

Feasibility studies have been undertaken in preparation for grant applications for the Salix low-carbon heating fund, to examine the potential for low-carbon technologies at three of our major gas-fed sites. Sandridge Gate Business Centre was ruled out as it did not justify the energy savings needed for funding, Verulamium Museum did not receive funding due to high submission volumes and the Civic Centre application wasn’t submitted as the cost per tonne of carbon saved didn't meet the scheme eligibility threshold. These feasibility studies have highlighted how the Council’s aging estate and plant rooms require significant investment to upgrade Consequentially this increased investment often means the schemes don't meet eligibility criteria for current funding schemes and increased internal match funding will be required to ensure these projects become viable.

Heat decarbonisation plans are currently being produced for the District Office, St Albans Museum, Sandridge Gate and Verulamium Museum (our largest corporate building). The plans will provide the data to enable us to apply for Public Sector Decarbonisation Fund (PSDF) funding in 2025.

Work has been undertaken in 2024 to audit all corporate energy meters, take meter readings and move them onto a new parent energy contract. This will provide the Council with greater transparency of the utility portfolio, greater purchasing power and cost savings, as well as allowing us to more accurately budget for future financial years. This activity is likely to have contributed to the apparent increase in energy consumption as some sites had been previously undercharged based on inaccurate estimated bills provided by suppliers. This has now been corrected through a meter reading exercise for the whole estate. This has had an impact on our electricity as well as our gas emissions.

There have been lots of energy efficiency projects undertaken across the Council’s commercial estate with attention focused on the District Offices. Most notably, occupancy sensors have been installed on most lighting fixtures to reduce energy consumption in spaces that are not occupied. Additionally, cloud-based sensors have been installed on the Civic Offices five central heating boilers to reduce consumption through reducing boiler dry cycling as well as provide real time analytics that have been used to identify causes of gas consumption spikes and influence future energy efficiency projects to reduce usage.

Occupancy levels of the District Offices are at an all-time high as NHS staff and the Police now utilise space in the offices. This also has an impact on gas use given the need for 24-hour access to heat and hot water.

**Recommendations**

One of the biggest challenges SADC is facing when it comes to reducing gas consumption and emissions is obtaining funding for feasibility studies, design work and contractor costs associated with the upgrade of heating systems across the estate to low-carbon alternatives. An ageing estate has meant that there are significant costs associated with upgrading plant rooms and their infrastructure. Newer low carbon technologies are being considered at each site and associated feasibility studies have outlined the considerable design and enabling works required prior to considering installation. SADC should continue to apply for available government funding, ensuring lessons are learned from unsuccessful bids, whilst also exploring other potential funding routes such as private and community funding.

SADC should create heating decarbonisation plans for all its properties, to identify the necessary actions required to achieve net zero. A schedule of works can then be planned, including any enabling or supplementary works that don’t require significant funding. This will likely include actions surrounding behaviour (of SADC staff and the community), things like boiler temperature settings, and fabric-first improvements (e.g. draught proofing). SADC will need to focus efforts on sites that are included within this corporate greenhouse gas emissions analysis and particularly those sites that show an increased utility consumption in relation to their use cases and occupancy.

**SCOPE 1: CORPORATE TRANSPORT**

Corporate transport emissions include emissions that arise from fuel combustion in vehicles owned or controlled by SADC.

**Change in Emissions**

|  |  |
| --- | --- |
| Baseline Emissions: 11 tCO2e  Previous Year Emissions: 4 tCO2e  Current Emissions: 2 tCO2e | Total reduction required: -64% / 7 tCO2e  Total reduction achieved: -86% / 9 tCO2e |

**Figure 5. Owned Transport Emissions 2008/09 – 2023/24**

**Progress**

The largest source of SADC’s owned transport emissions was the use of vans for the market set-up. Since COVID-19, many traders received grants to purchase their stall equipment and the market is now set up by traders as opposed to the Council, vastly reducing SADC vehicle mileage. The remaining corporate mileage is completed by housing, parking and museum teams. The parking team now use electric vehicles and bikes, meaning that emissions from the parking service are now just 5% of what they were in 2008/09.

Over the last 3 years, SADC has also installed a total of 17 dual electric vehicle charging points in its leisure centres and Council car parks, providing 34 spaces for EVs to be charged (for public use). The projects have been supported by two rounds of funding obtained from the Office for Zero Emission Vehicles.

**Recommendations**

SADC is on track to reduce corporate transport emissions in line with the reduction milestones. The added EV charging capacity will support the switch from internal combustion engine (ICE) vehicles at their end of life; SADC will need to ensure that all corporate vehicles are fully electric by 2030 and that charging networks are supplied by renewable energy (via renewable energy contracts or renewable generation). In the meantime, SADC should continue to minimise unnecessary travel in fleet vehicles and ensure vehicles are regularly audited for fuel efficiency ‘quick wins’ (e.g. removal of additional weight, changing of air filters, tyre pressure and low resistance tyres etc).

**SCOPE 2: CORPORATE ELECTRICITY USE**

This category includes emissions that occur as a result of electricity generation for consumption in sites controlled by SADC. It is best practice to measure and report electricity emissions using two methods (the market-based method and the location-based method) but only one method should be used consistently to track progress against targets. When using the market-based method, we can take into account the actual sources of energy consumed (e.g. green energy tariffs), whilst location-based calculations only consider the fuel mix of the UK electricity output as a whole. For this reason, we have chosen to use our market-based emissions for final reporting.

|  |  |  |
| --- | --- | --- |
|  | **Market-based** | **Location-based** |
|  | Considers SADC green energy purchases | Applies national grid electricity emissions factor only |
| **Baseline Emissions (tCO2e)** | 1,507 | 1,507 |
| **Previous Year Emissions (tCO2e)** | 27 | 368 |
| **Current Emissions (tCO2e)** | 258 | 420 |

Total reduction required: -64% / 964 tCO2e

Total reduction achieved: -83% / 1,250 tCO2e

The change in electricity emissions occurs as a result of a number of factors. Total electricity consumption, the emissions intensity of the UK grid and our chosen energy tariff all impact results.

* Electricity consumption has decreased by 33% from the baseline year but *increased* by 7% from the previous year. This may be due to up-to-date meter reads being taken after a period of estimated reads.
* The emissions intensity of the UK grid (emissions per kWh of electricity purchased) has decreased by 58% from the baseline year but increased by 7% from the previous year.
* Nevertheless market-based emissions are within target due to the Council’s purchase of electricity from a fully renewable tariff. SADC began purchasing the majority of its electricity through a fully renewable energy tariff in 2018/19, this meant that market-based emissions were vastly reduced compared to previous years. Electricity for temporary housing, which variably makes up around 9% of consumption, is not purchased through the main supplier, and was not covered by the renewable energy tariff. This electricity is responsible for the remaining market-based emissions during the term of the renewable contract.
* The renewable energy contract ended part-way through the most recent reporting period (October 2023), meaning market-based emissions have increased by 837% since the previous period.

**Figure 6. Electricity Consumption and Emissions 2008/09 – 2023/24**

As with gas, Housing energy accounts make up a large portion of SADC’s total electricity consumption (49% of electricity consumed since the baseline year), but here, District Offices also contribute a significant amount (32% of all electricity consumed since the baseline year).

Electricity consumption for both housing and offices has decreased since the baseline year (-42% and -39% respectively) but has increased since the previous year (+19% and +2% respectively).

There have been decreases in electricity consumption for all other property groups since the baseline year except for Museums and Historic (due to the changes to the Museum of St Albans), and Parking (which was added to the inventory in 2021/22).

Since the previous year, there have been reductions in the electricity consumption of most other property groups which are comparatively small. Some increases are observed for Museums and Historic (9%) and Parking (5%).

**Figure 7. Electricity Consumption by Property Group 2008/09 – 2023/24 (Housing and Offices Only)**

**Figure 8. Electricity Consumption by Property Group 2008/09 – 2023/24 (All other property groups)**

47 electricity accounts have been lost and 35 have gained since our baseline year. The removal/addition of these accounts has caused a 16.7% reduction in electricity consumption since the baseline year. This means we can attribute 16.1% of the reduction in consumption since the baseline year to actual reductions in the electricity consumption of current accounts.

For further analysis of electricity emissions on a per-property basis, see Appendix 3.

**Progress**

Part of the reduction in our electricity consumption since the baseline year is due to the installation of solar panels on some of our corporate sites. The District Office’s solar panels reduce emissions by around 60 tCO2e each year and save the Council around £1,600 per annum in electricity bills (the initial cost of investments has already been recouped). A feasibility study has also indicated that the installation of solar arrays on the Verulamium Museum would result in significant savings, however, this project is on hold pending structural improvements that are required to support the arrays.

Over the past two years, SADC has also focused on upgrading lighting across its corporate estate. Projects have replaced fluorescent and halogen bulbs with LEDs at major sites. We have also adopted a policy of upgrading individual lights to LEDs as they reach the end of their life. We have installed occupancy sensors at the Civic Centre to reduce electricity consumption and have completed 3 phases of lighting upgrades at Verulamium Museum to include LED in the display cabinets.

**Recommendations**

As with gas consumption and emissions, one of the biggest challenges SADC is facing when it comes to reducing electricity consumption and emissions is funding. Here the same recommendations apply; SADC should continue to apply for public funding, explore potential private funding routes, encourage behaviour change across the SADC workforce and community and invest in low-cost energy efficiency improvement measures. SACD should install AMR at all sites to allow accurate monitoring of consumption and explore all renewable energy generation opportunities. SADC should also secure another electricity contract that is backed by renewable energy at the earliest opportunity and enforce similar requirement from its largest contractors.

**SCOPE 3: CONTRACTOR SERVICES**

This category includes emissions associated with our large contractor’s gas use, electricity use and transportation. We have also included our contractor’s electricity transmission and distribution (T&D) emissions. We are currently measuring emissions for three large contractors; Everyone Active (Leisure), Veolia (Waste and Recycling) and John O’Conner (Grounds Maintenance), and have previously included NCP and NSL (Parking, whom we no longer work with).

**Change in emissions**

|  |  |
| --- | --- |
| Baseline Emissions: 4,028 tCO2e  Previous Year Emissions: 2,611 tCO2e  Current Emissions: 2,503 tCO2e | Total reduction required: -64%, -2,503 tCO2e  Total reduction achieved: -38%, -1,526 tCO2e |

There have been decreases in all contractor emissions categories since the baseline period (gas use -35%, electricity use -46%, transport -33%, T&D-40%).

Since the previous period, there has been a decrease in gas use emissions (-23%), but increases in electricity use (+33%), transportation (+1%) and T&D (+25%) emissions.

**Figure 9. Contractor Emissions by Category 2008/09 – 2023/24**

All our active contractors have decreased emissions since the baseline year (Everyone Active -36%, Veolia -20% and John O’Connor -75%). Since our previous year, Everyone Active and John O’Connor’s emissions have decreased (-8% and -0.4% respectively), but Veolia has increased emissions (+4%).

**Figure 10. Contractor Emissions by Contractor 2008/09 – 2023/24**

Leisure assets are our biggest source of contractor emissions, contributing 65% of all contractor emissions and 45% of our total corporate footprint. This is due to the large amounts of energy they require to operate. Leisure centre emissions have decreased by 36% since the baseline year, and 9% since the previous year.

**Figure 11. Leisure Asset Emissions 2008/09 – 2023/24**

**Table 1. Change in Average Leisure Asset Emissions (tCO2e)**

Averages have been calculated using the first three years of available data and the most recent three years of available data. Sites that are no longer open or those with less than 6 years' worth of data have been excluded from the table.

|  |  |  |  |
| --- | --- | --- | --- |
| Leisure Asset | Baseline Average | Current Average | Change % |
| Alban Area | 450 | 146 | -67% |
| Batchwood | 248 | 121 | -51% |
| Cotlandswick | 81 | 43 | -47% |
| Harpenden Leisure Centre and Eric Morecambe | 619 | 543 | -12% |
| Westminster Lodge and Abby View | 924 | 898 | -3% |

Leisure asset footfall has almost doubled since the baseline year; from 1.2 million visitors per year to 2.4 million in 2023/24. This means that emissions per visitor have decreased significantly since the baseline year. In 2008/09 emissions per visitor were 2.1 kgCO2e and in 2023/24, they were 0.7 kgCO2e, a reduction of 67%. Whilst this is positive, it is important to note that targets are set on total emissions, rather than emissions per visitor.

**Figure 12. Leisure Centre Emissions per Visitor 2008/09 – 2023/24**

**Progress**

In 2019, energy audits were conducted on multiple leisure centres, and the measures identified were incorporated into renewal contracts for implementation by Everyone Active. Solar arrays have also been installed on 3 leisure centres (Westminster Lodge, Batchwood and Cotslandwick), these reduced contractor emissions by 16 tCO2e this year. Work will now commence on installing solar PV panels at Harpenden Leisure Centre in early 2025 funded by Sports England.

An upgraded fleet of Grounds Maintenance vehicles is also now in operation by John O’Connor, this includes 6 electric strimmer’s, 2 electric hedge cutters, 3 electric blowers, 1 electric park buggy, 2 electric vans and 1 electric JCB for the cemetery (which SADC contributed to) and 1 hybrid vehicle. Given the cost of electric vehicles at this time, 21 new diesel vehicles were purchased for the contract, but they have ad-blue engines and are the most efficient available.

New waste & recycling vehicles are also being used by Veolia, these are still powered by diesel but are the most efficient available. Electric alternatives and the infrastructure required are currently beyond SADC’s available budget.

**Recommendations**

SADC must continue to support contractors to reduce emissions and build this into contracts. This could include the addition of clauses surrounding energy, fuel and vehicle procurement (e.g. renewable energy generation and HVO use minimum requirements, the addition of no new ICE vehicle to the fleet after 2028, etc). To achieve our Net Zero targets, there needs to be more progress, particularly across Leisure Centre energy consumption and large contractor transportation, both of which are behind on the reduction trajectory. Everyone Active have been successful in winning £16m of Public Sector Decarbonisation Funding with their other Local Authority partners. The Council should utilise its experience and take a collaborative approach to future grant applications. SADC should create an emissions reduction plan in collaboration with each contractor and review this on an annual basis.

**SCOPE 3: CORPORATE HOMEWORKING**

Corporate homeworking includes emissions that occur due to SADC employees using energy for lighting, heating and IT when working from home. We calculate these emissions using an estimate of the number of hours that employees worked from home and an emissions per homeworking hour figure published by DEFRA.

**Change in Emissions**

We have only measured our homeworking emissions for the current reporting period and the previous reporting period. Emissions in 2022/23 were estimated to be 60 tCO2e and in 2023/24, 88 tCO2e, an increase of 47%. This year we used more specific working pattern data to estimate the number of homeworking hours, which could have led to the increase.

**Recommendations**

Whilst commuting emissions are not currently measured by SADC, increased staff homeworking will mean a reduction in the commuting emissions of SADC’s workforce. The goal should not be to reduce homeworking, but to minimise emissions associated with it. This will involve educating employees through programs such as Carbon Literacy Training and staff engagement programs. It is also recommended that the Council collect more accurate data on homeworking patterns to allow the impact of changes to be measured. SADC could also consider offering employees the opportunity to invest in home renewable energy projects through a salary sacrifice scheme.

**SCOPE 3. COUNCIL ELECTRICITY TRANSMISSION & DISTRIUTION (T&D)**

This category includes losses of generated electricity during the transmission and distribution process. T&D emissions are calculated by applying a DEFRA emissions factor (derived from grid losses) to our total electricity consumption. Therefore T&D emissions often mirror scope 2 emissions, with some further decreases resulting from improvements to the grid meaning fewer T&D losses.

**Change in emissions**

|  |  |
| --- | --- |
| Baseline Emissions: 117 tCO2e  Previous Year Emissions: 34 tCO2e  Current Emissions: 36 tCO2e | Total reduction required: -64% / 75 tCO2e  Total reduction achieved: -69% / 81 tCO2e |

**Figure 13. T&D Emissions 2008/09 – 2023/24**

**Progress**

T&D emissions were impacted by the majority of the actions outlined in Scope 2. Corporate Electricity Use section excluding purchases of renewable energy via a tariff. Renewable contracts only cover the electricity consumed and not the electricity lost in the grid, the only way to have a direct impact is to reduce electricity consumption (either through energy efficiency measures or by generating renewable energy on-site).

**Recommendations**

All actions to reduce electricity use will impact SADC’s T&D emissions aside from the purchase of energy through a renewable contract (as these often don’t cover T&D losses). Electricity generated onsite will have no associated T&D emissions.

**SCOPE 3: BUSINESS TRAVEL**

Business travel emissions include those that occur as a result of fuel combustion or electricity generation used during employee transportation in third-party vehicles (employee vehicles, public transport) for business purposes. It does not include commuting emissions.

**Change in emissions**

|  |  |
| --- | --- |
| Baseline Emissions: 97 tCO2e  Previous Year Emissions: 30 tCO2e  Current Emissions: 21 tCO2e | Total reduction required: -64% / 62 tCO2e  Total reduction achieved: -78% / 76 tCO2e |

**Figure 14. Business Travel Emissions 2009/09 – 2023/24**

**Progress**

Business travel emissions have been steadily decreasing since the baseline year with the rise of virtual meetings and homeworking, and the general increase in the efficiency of cars. Two electric car club vehicles are now available for staff to use as an alternative to their own vehicles. This provides staff with an alternative to commuting via car or using their own Internal Combustion Engine (ICE) vehicles when business travel is required. More of our employees are also driving smaller cars than they were previously, although the main difference is still the reduced number of miles completed). Councillor travel is no longer calculated, however, this only made up a small part of our business travel emission (less than 1% in the final year of reporting; 2019/20).

**Figure 15. Business Travel Emissions by Mode 2008/09 – 2023/24**

**Recommendations**

The Council should continue to develop their Green Travel Plan for staff to ensure there is appropriate support to those wanting to move away from personal car ownership, purchase an electric car, or start walking to work. Efforts to improve cycle facilities include secure cycle storage, storage for possessions and pool bikes, as well as salary sacrifice schemes for EVs and cycling equipment.

The Council should review the Lease Car scheme to ensure that it does not promote and encourage the use of ICE vehicles, especially since more staff are now working from home and may have a reduced need to travel. Managers should encourage staff to think about how they travel to events and meetings with the focus always being on public transport or car sharing as opposed to single occupancy vehicles.

**Conclusion**

Whilst we can report a reduction in emissions since the baseline reporting period, it is important to note that only a small part of these reductions result from our actions to reduce emissions. Many of the reductions across our footprint are a result of UK electricity grid decarbonisation and the closure of properties and associated energy accounts. Even with these external reductions taken into account, actual emissions *still* exceed our targeted emissions, and we will now need to reduce emissions at an even greater rate than forecasted if we are to meet our targets.

**Appendices**

**Appendix 1. Greenhouse Gas Emissions Reporting Protocol**

1. Approach

Our greenhouse gas emissions calculations are produced in line with Government guidance. The most recent (2020) Government guidance on how to report emissions is provided in the document ‘HM Government, March 2020: Environmental Reporting Guidelines: including streamlined energy and carbon reporting guidance’. This method is based on principles from the Greenhouse Gas Protocol, an internationally recognised standard for corporate accounting and reporting of greenhouse gas emissions.

1. Greenhouse gases

The six main greenhouse gases covered by the Kyoto Protocol are Carbon dioxide (CO2), Methane (CH4), Hydrofluorocarbons (HFCs), Nitrous oxide (N2O), Perfluorocarbons (PFCs) and Sulphur hexafluoride (SF6). We use the standard practice of reporting aggregated greenhouse gas emissions in tonnes of carbon dioxide equivalent (tCO2e).

1. Operational scopes

As a Local Authority, we are both directly and indirectly responsible for the emission of greenhouse gases from the activities related to our operations and services. For our greenhouse gas report, we adopt the ‘operational control approach’ to determine where the boundary of our responsibility lies. Emissions are categorised into three different scopes. These are:

* Scope 1 (direct, controlled emissions): emissions from activities owned or controlled by the Council which release emissions directly into the atmosphere. This includes a) gas use (e.g., gas central heating) and b) Council-owned fleet (e.g., diesel for Council vans or equipment)
* Scope 2 (indirect, controlled emissions): emissions from activities owned or controlled by the Council, associated with our consumption of purchased electricity, heat, steam and cooling. This includes electricity use by the Council (e.g. building power, electric vehicles)
* Scope 3 (other indirect): Emissions that result from our activities, but occur at sources which we do not own, control, or have full authority over, and are not classified as Scope 2. This includes:
* energy use and business travel by the largest contractors (e.g. leisure centres, grounds maintenance)
* staff/member business travel
* staff homeworking (from 2022/23)
* emissions associated with the transmission and distribution of electricity (this is just a calculation undertaken based on the total energy usage).

Other emissions can also be measured as part of the Scope 3 assessment, such as procured goods, water and waste, however, focusing on the above is recommended. given the difficulty in accurately gathering data and assessing the carbon impact at the current time.

1. Excluded emissions

We have chosen to exclude emissions from assets leased out to other parties of which we have no control, fugitive emissions from air conditioning, staff commuting, water use, waste production and purchased materials. A summary of included and excluded emission sources is shown in Table 2.

Table 2. Included and excluded emissions

|  |  |  |  |
| --- | --- | --- | --- |
|  | Scope 1  Direct Emissions | Scope 2  Indirect Energy Generation Emissions | Scope 3  Other Indirect Emissions |
| Included | * Stationary Combustion * Mobile Combustion | * Purchased Electricity | * Business travel in private vehicles and by public transport * Energy use and transport of large contractors * T&D of electricity * Staff homeworking |
| Excluded | * Fugitive Emissions |  | * Waste Production * Water Use * Staff Commuting * Procurement of goods (other than large contractor services) * Well-to-tank emissions of fuels |

1. Property groups

The Council owns a wide variety of properties. For purposes of analysis, properties are categorised into these groupings:

|  |  |
| --- | --- |
| Cemeteries | Hatfield Road and Westfield Road Cemeteries |
| Commercial Property | Business Premises (communal areas, unoccupied spaces) |
| Community Centres | Community Centres (no longer any properties in operation) |
| Housing | Housing communal areas, shelter housing |
| Arts | Maltings Arts Theatre (no longer part of our inventory) |
| Markets and Events | Market Depot, market feeder pillars |
| Museums and Historic | Museums, heritage buildings |
| Office | District Offices |
| Other Equipment | Air Quality Analyser (no longer part of our inventory) |
| Parking | Drovers Way Car Park |
| Parks and Recreation | Sports pavilions and dressing rooms |

1. Outsourced services

Several core functions of the Council are outsourced to external providers. Whilst we do not have day-to-day control over the delivery of these services, we have some control within the initial specification of the contract. We therefore include emissions from energy and fuel use by our largest contractors within Scope 3. The included contractors provide services for waste collection and recycling, grounds maintenance, car parks and leisure facilities.

1. Renewable Energy Tariffs and Offsetting

Emissions savings from the purchase of renewable energy via an energy tariff are reported under the market-based scope 2 method but not under the location-based scope 2 method. Offsets are not considered as part of any of the calculations included in this report.

1. Data collection

* Properties: Energy bills are used to determine the energy consumption of buildings the Council has operational control of. There can be some degree of inaccuracy resulting from estimated billing though this is minimized as we continue to install Automatic Meter Reading (AMR) to many energy supplies.
* Transport: Data from Council-owned vehicles is obtained from fuel card information. Business miles by private vehicle are collected from expense claim forms submitted to the Council’s payroll. Business miles by public transport are collected from staff claims for reimbursement and the e-procurement system.
* Outsourced services: Contractors are required contractually to provide energy and transport data associated with the delivery of services on an annual basis.

1. Recalculation policy

The Council’s baseline year is set for the 2008/09 reporting year. On occasion, we recalculate previous figures to improve report accuracy. For instance, when improvements are made to the measurement methodology, updated conversion factors are released, or errors are discovered and corrected from the data set.

1. Conversion factors

The greenhouse gas emissions in this report are calculated using DEFRA’s [Greenhouse Gas Reporting: Conversion Factors 2023](https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023)

**Appendix 2. Full Statement of Emissions 2008/09 – 2023/24**



**Appendix 3. Analysis of energy use by property**

Table 3. Electricity Emissions (tCO2e) by Property (Top 10) 2023/24

|  |  |  |  |
| --- | --- | --- | --- |
| **Property Name** | **Property Group** | **2023/24 Emissions** | **% Of Total** |
| St Albans District Council Offices | District Offices | 119 | 28% |
| St Albans Museum and Gallery | Museums & Historic | 35 | 8% |
| Temporary Housing (Total) | Housing | 30 | 7% |
| Wavell House | Housing | 30 | 7% |
| Drovers Way Car Park | Parking | 28 | 7% |
| Stanhope Road 30 | Housing | 18 | 4% |
| Verulamium Museum | Museums & Historic | 12 | 3% |
| Sandridge Gate Business Centre | Commercial Property | 11 | 3% |
| Bricket Road - Landlord Supply | Housing | 9 | 2% |
| Telford Court | Housing | 7 | 2% |

Table 4. Gas Emissions (tCO2e) by Property (Top 10) 2023/24

|  |  |  |  |
| --- | --- | --- | --- |
| **Property Name** | **Property Group** | **2023/24 Emissions** | **% Of Total** |
| Temporary Housing (Total) | Housing | 201 | 17% |
| St Albans District Council Offices | District Office | 75 | 8% |
| Cyril Dumpleton House | Housing | 54 | 4% |
| Gorham Drive 42A (boiler house) | Housing | 47 | 4% |
| Breadcroft Sheltered Housing | Housing | 45 | 5% |
| Verulamium Museum | Museums & Historic | 41 | 2% |
| Gertrude Peake Place | Housing | 40 | 4% |
| Cottonmill Lane 182 (boiler house) | Housing | 31 | 3% |
| Pemberton Alm Houses | Housing | 22 | 2% |
| Broome Corner | Housing | 22 | 2% |

**Table 5. Average Electricity Emissions (tCO2e) Change by Property**

Baseline averages have been calculated using the first three years of data available for each property, recent averages have been calculated using 2021/22 – 2023/24 data. There were 295 electricity accounts included in the analysis; properties that are no longer open or have been open for less than 6 years have been excluded. The table below shows the 5 properties with the largest increases and the 5 with the largest decreases.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Property Name** | **Property Group** | **Baseline Average** | **Recent Average** | **% Change** |
| Largest Increases in Emissions | | | | |
| Drakes Drive 183-193 | Housing | 0.5 | 3.3 | 585% |
| Tudor Road 13-16 | Housing | 0.9 | 3.7 | 300% |
| Thorne House | Housing | 0.1 | 0.5 | 277% |
| Stanhope Road 30 | Housing | 2.1 | 6.9 | 221% |
| Feeder Pillar 9 | Markets & Events | 0.2 | 0.4 | 136% |
| Largest Decreases in Emissions | | | | |
| Markets and Events - Feeder Pillar 3A (BHS Block) | Markets & Events | 1.2 | 0.0 | -98% |
| Rothampstead Park Pavillion | Parks & Recreation | 2.8 | 0.0 | -98% |
| Tennyson Road 18-24 | Housing | 6.3 | 0.1 | -99% |
| Feeder Pillar 14 (nr. Ladbrokes) | Markets & Events | 0.1 | 0.0 | -99% |
| Meredon Court | Housing | 17.4 | 0.2 | -99% |

**Table 6. Average Gas Emissions (tCO2e) Change by Property**

Baseline averages have been calculated using the first three years of data available for each property, recent averages have been calculated using 2021/22 – 2023/24 data. There were 28 gas accounts included in the analysis; properties that are no longer open or have been open for less than 6 years have been excluded. The table below shows the 5 properties with the largest increases and the 5 with the largest decreases.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Property Name** | **Property Group** | **Baseline Average** | **Recent Average** | **% Change** |
| Largest Increases in Emissions | | | | |
| Town Hall / NM and Gallery | Museums & Historic | 7 | 45 | 514% |
| Sandpit Lane 3 | Housing | 1 | 5 | 250% |
| St Michaels Dressing Rooms | Parks & Recreation | 4 | 9 | 148% |
| Temporary Housing (Total) | Housing | 95 | 233 | 145% |
| St Albans District Council Offices | District Offices | 72 | 101 | 41% |
| Largest Decreases in Emissions | | | | |
| Grimthorpe Close 11 | Housing | 55.7 | 29.8 | -47% |
| May Clarke House | Housing | 8.1 | 3.1 | -61% |
| Amenbury Lane Spot Pavillion | Parks & Recreation | 4.2 | 1.1 | -73% |
| Russell Avenue 5 | Housing | 7.7 | 1.8 | -77% |
| Sandridge Gate Business Centre | Commercial Property | 54.9 | 9.6 | -83% |

1. <https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/summaries/uk_climate_summary_winter_2024.pdf> [↑](#footnote-ref-2)