



## ADUR & WORTHING COUNCILS

Joint Strategic Committee  
3 November 2020  
Agenda Item [...]

Key Decision: No

Ward(s) Affected: All

### **Working towards the councils' carbon neutral target: progress update**

#### **Report by the Director for Digital, Sustainability & Resources**

#### **Executive Summary**

##### **1. Purpose**

- 1.1. On 9 July 2019 Joint Strategic Committee (JSC) declared 'Climate Emergency'. As part of the declaration, Members committed to *work towards becoming carbon neutral by 2030*.
- 1.2. In December 2019 JSC approved the adoption of the councils *Carbon Neutral Plan* which sets out an ambitious pathway for the councils to become carbon neutral by 2030. The councils have also made a voluntary commitment under the Government's *Emissions Reduction Pledge 2020* to report annually on carbon emission reductions.
- 1.3. This report presents the first year's carbon emissions report. To achieve the 2030 carbon neutral target, an average reduction of 10% will need to be achieved annually. When compared to 2018/19, emissions from the councils' buildings and vehicles reduced by more than 13% in the past year.
- 1.4. Due to new data becoming available, it is proposed to re-baseline the council's carbon emissions to ensure greater accuracy in the coming years
- 1.5. An outline of future carbon reduction projects is presented (Section 6).

## **2. Recommendations**

- 2.1. That the Committee notes the councils' current carbon emissions and emerging carbon reduction work programme for 2020/21 and 2021/22 which aims to deliver meaningful carbon reductions in the years ahead.
- 2.2. That the Committee approves:
  - 2.2.1. the publication of the carbon emissions report on the council website; and
  - 2.2.2. the submission of these figures to the government department of Business Energy and Industrial Strategy (BEIS) under the voluntary Emissions Reduction Pledge 2020

## **3. Context**

- 3.1. Adur & Worthing Councils declared a climate change emergency on 9 July 2019, becoming the first West Sussex District and Borough to do so. Alongside this declaration, the councils set a target to be carbon neutral by 2030.
- 3.2. The councils' adopted: *Adur & Worthing Councils' Carbon Neutral Plan: Working towards the 2030 target* on 3 December 2019 and a Carbon Reduction Team has recently been established as part of the Sustainability Team within the Digital, Sustainability & Resources directorate to facilitate work to achieve the target, and attract funding to contribute to the councils decarbonisation.
- 3.3. Platform 3 of *Platforms for our Places*, is *Tackling Climate Change and Supporting Our Natural Environment*. Platform 3 recognises the urgent need to act on climate change and commits to actions to decarbonise the councils' transport, buildings and services.
- 3.4. Strong commitments have been made in *Sustainable AW*, to reduce carbon emissions. These include signing up to the *UK100 Cities Pledge* and making the government's voluntary Emissions Reductions Pledge 2020

- 3.5. As a requirement of the Emissions Reduction Pledge 2020, the councils committed to report on their emissions annually. This report sets out the emissions for the year 2019/20 for the councils.
- 3.6. A year has passed since the carbon neutral target was adopted. To achieve this target approximately 10% reduction must be delivered year on year through the decade. Some years may see lesser and some greater emissions reductions, depending on interventions delivered and climatic conditions. For the first year of this decade, an emissions reduction of 13% has been achieved.
- 3.7. Work has commenced on new carbon reduction projects that will deliver further carbon reduction savings, as outlined in Section 6.

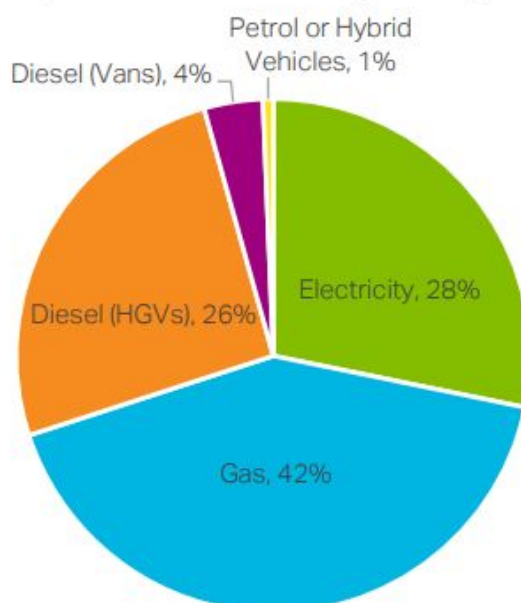
#### 4. Background

- 4.1. As part of the *Carbon Reduction Plan*, AECOM were commissioned to report on the councils' carbon emissions, in line with the methodology defined within the *BEIS Emissions Reduction Pledge 2020 guidance*.
- 4.2. Under this guidance, emissions are categorised into Scope 1, 2 and 3:

Category	Description	Data analysed
Scope 1	Direct emissions from sources owned or controlled by the reporting organisation.	Metered gas data in properties owned and operated by, and where the councils pay for gas. Diesel and petrol consumption for council-owned vehicle fleet and mileage figures for pool cars
Scope 2	Indirect emissions from the generation of energy purchased by the reporting organisation.	Metered electricity data in properties owned and operated by, and where the councils pay for, electricity
Scope 3	Indirect emissions that result from other activities that occur in the value chain of the reporting organisation, either upstream or downstream.	Scope 3 emissions are those from indirect council operations, for example leisure or cultural sites not operated by the council. The council is not responsible for the direct payment of bills relating to this consumption and therefore they do not form part of the Emissions Reduction Pledge.

- 4.3. Based on the data available to AECOM at the time, the councils' carbon emissions for the year 2018-19 were **2,908 tonnes of CO2 equivalent (tonnesCO2e)**, broken down as follows:

Figure 2. Scope 1 & 2 emissions by fuel type (2018-19)



- 4.4. Since the figures above were produced, the councils have created a new Carbon Reduction Team. This means that the councils are now capable of conducting this reporting in-house.

## 5. 2019/20 Emissions

### Building Emissions

- 5.1. Analysis of the councils emissions associated with gas and electricity use in buildings between 2019/20 revealed that emissions reduced by 13.85%, broken down as follows:

	Emissions (tonnesCO2e)		% change
	2018/19	2019/20	
<b>Electricity</b>	1014	856	-15.58%
<b>Gas</b>	1116	979	-12.28%
<b>Total</b>	2130	1835	-13.85%

Table 1: 2019/20 Building emissions

- 5.2. The 13.85% reduction is primarily due to:
- 5.2.1. the installation of a 20kWp Solar photovoltaic array at the Shoreham Centre (March 2019)
  - 5.2.2. an increase in renewable energy generation across the UK, contributing to lower emissions for every unit of electricity consumed;

- 5.2.3. a warmer winter, resulting in reduced gas consumption<sup>1</sup>; and
- 5.2.4. the council no longer being responsible for a small number of buildings.

5.3. Since 2019, the council has procured 100% renewable electricity for all council buildings and sites through it's corporate energy contract. However, according to the BEIS emissions reporting methodology, this cannot be counted towards the councils emissions reduction.

### Vehicle Emissions

5.4. Using the same methodology used by AECOM, 2019/20 emissions from vehicles reduced by 3.4%:

	Emissions (tonnesCO2)e		% change
	2018/19	2019/20	
<b>Transport</b>	873	843	-3.44%

Table 2: 2019/20 Vehicle Emissions

5.5. Actions that have been taken to contribute to the 3.4% emissions reduction include:

- 5.5.1. the entire rental fleet of cars for business travel parked at Worthing Town Hall being switched to hybrid from petrol or diesel; and
- 5.5.2. early emissions reductions associated with the three new full electric vans that have replaced the diesel vans in the fleet parked at Commerce Way (January 2020).

## 6. Project Pipeline and Forecast

6.1. The council has been working to progress the 'next steps' proposed in the Carbon Reduction Plan. This has included the creation of the Carbon Reduction Team within the Sustainability Team in September 2020.

6.2. A pipeline of carbon reduction projects is now being progressed. This includes over the next 2 years:

- 6.2.1. The Worthing Civic Quarter Heat Network
- 6.2.2. Exploring solar farm development

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<sup>1</sup> Whilst the winter of 2018/19 was noteworthy in its warmth, the winter of 2019/20 was particularly mild. This has a significant effect on gas consumption across the UK. More information can be found on the Met Office reports:

[https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/summaries/uk\\_monthly\\_climate\\_summary\\_winter\\_2020.pdf](https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/summaries/uk_monthly_climate_summary_winter_2020.pdf)

[https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/summaries/uk\\_monthly\\_climate\\_summary\\_winter\\_2019.pdf](https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/summaries/uk_monthly_climate_summary_winter_2019.pdf)

- 6.2.3. Rooftop solar PV installations on corporate buildings
  - 6.2.4. Replacing gas heating systems with renewable heating systems (heat pump based systems)
  - 6.2.5. Insulation, energy efficiency and air-tightness works
  - 6.2.6. Plans to switch council fleet and rental cars to full electric vehicles wherever possible.
- 6.3. There is currently significant government funding available for some of the projects above through funding streams such as the Public Sector Decarbonisation Scheme; and grants through the South East Energy Hub. Multiple bids are being prepared to enable the councils to take maximum benefit from the schemes.
- 6.4. Updates will be provided to members and Joint Strategic Committee as appropriate to seek approval for bid applications, capital spend, and contract awards.
- 6.5. Due to the timescales involved in securing funding and project delivery, it is unlikely that any significant carbon reduction projects will be delivered prior to March 2021 (the end of the next reporting period). As such, it is expected that there will only be minor emissions reductions for 2020/21, with more significant reductions beginning from 2021/22.

## **7. Baselines for future years**

- 7.1. The original AECOM report established building emissions as **2035tCO<sub>2</sub>e**, however the Carbon Reduction Team have now been able to calculate more accurate figures through thorough and detailed analysis. The figures in Table 1, above, use a BEIS approved methodology to calculate the emissions and it is recommended that future reporting uses these figures as the building baseline figure.
- 7.2. For vehicles, the figures presented in Table 2 used estimates of emissions based on mileage travelled, rather than fuel consumed (as used in the AECOM report). The Council's Transport Manager was able to provide actual diesel/petrol consumption figures for the fleet for 2019/21. This is a more accurate representation of emissions and is the recommended methodology by BEIS.
- 7.3. Using this calculation method gives emissions from Vehicles as 1186tCO<sub>2</sub>e and it is recommended to use this figure for future reporting years. This is a

significant increase over the estimated 843tCO<sub>2</sub>e using the approximate emissions factors. This variation is likely to be due to:

- 7.3.1. The age of Adur & Worthing vehicles being older than those used as 'average vehicles' by BEIS
- 7.3.2. Adur & Worthing vehicles undertaking different journey types to the average vehicles (for example, regularly stopping refuse vehicles travelling in hilly areas and operating bin lifts will consume more fuel than another vehicle of similar size)
- 7.3.3. The difficulty of using catch-all averages for all vehicles of a certain class (i.e. not all 17T vehicles will have the same fuel consumption).

### New Baseline Figures

7.4. The new baseline figures are therefore proposed as follows:

Tonnes of CO <sub>2</sub> equivalent (2019/20)	
<b>Electricity</b>	856
<b>Gas</b>	979
<b>Vehicles</b>	1186
<b>Total</b>	3021

Table 3: Proposed new baseline emissions

7.5. This gives a breakdown of carbon emissions by fuel type is as follows:

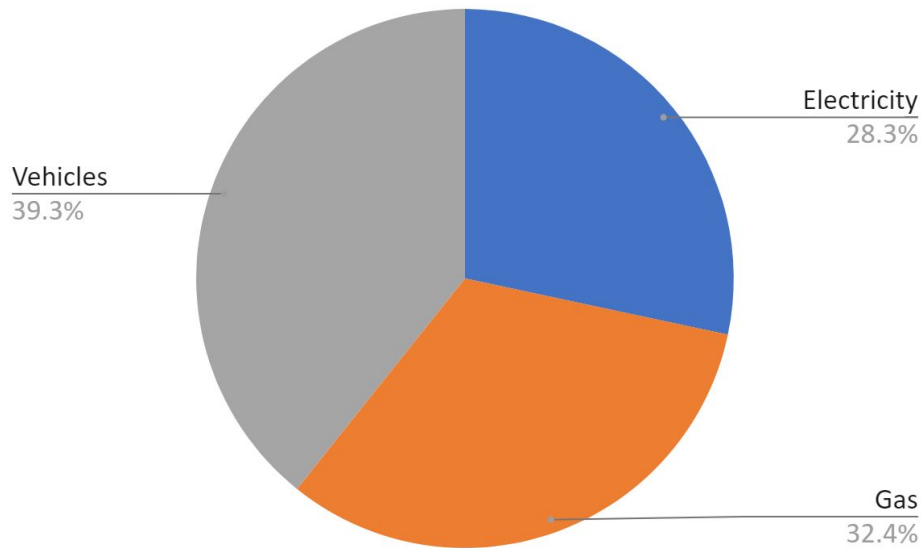


Figure 1: emissions by fuel type

## **8. Summary**

- 8.1. When calculated using the AECOM methodology used for the Carbon Neutral Plan, emissions from the councils' buildings and vehicles reduced by more than 13% in the past year.
- 8.2. The council now has the ability to calculate these figures internally and, to ensure consistency, it is recommended to adopt the figures presented at 7.4 as a baseline for comparison in future years.
- 8.3. A large project pipeline is under development that should significantly reduce the councils' carbon emissions. Due to the timescales involved in project delivery, it is likely the first reductions will be noted during the 2021/22 emissions reporting.

## **9. Engagement and Communication**

- 9.1. The following internal groups and teams have been consulted in order to compile these figures and programmes of work: Carbon Reduction Delivery Group (a cross-departmental subgroup established to progress part of Platform 3); Technical Services & Facilities; Environmental Services; Housing; Major Projects; Finance; Procurement; Legal; Democratic Services; Planning.
- 9.2. The following external groups have been consulted as part of the Worthing Civic Quarter Heat Network Project:
  - 9.2.1. BEIS (Heat Network Delivery Unit, and Heat Networks Investment Programme)
  - 9.2.2. West Sussex County Council
  - 9.2.3. Ministry of Justice (Worthing Law Courts)
  - 9.2.4. Worthing Theatres and Museums
- 9.3. Consultation has also been undertaken with the following external groups relating to carbon emissions reporting:
  - 9.3.1. TEAM (energy management software supplier)
  - 9.3.2. BEIS (emissions reporting)

## **10. Financial Implications**

- 10.1. There is currently £2.2m allocated to deliver energy efficiency and renewable energy improvements within the capital programme.



	2020/21	2021/22	2022/23	Total
	£	£	£	£
Adur District Council	327,210	325,000	325,000	977,210
Worthing Borough Council	409,000	400,000	400,000	1,209,000
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	736,210	725,000	725,000	2,186,210

- 10.2. The budgets have been included on an 'invest to save' basis and each proposal or programme of works should generate a saving over the life of the investment. Each scheme is subject to a business case and approved by the Executive Member of Resources prior to spend.
- 10.3. Wherever possible, external funding will be sought to ensure the councils' reduce their capital expenditure whilst delivering carbon reduction projects. In parallel to this, Salix interest free loans will be investigated to improve the potential business cases.

Finance Officer: Sarah Gobey

Date: 22nd October 2020

## 11. Legal Implications

- 11.1 The Climate Change Act 2008 is the basis for the UK's approach to tackling and responding to climate change and imposes obligations on Local Authorities to reduce emissions of carbon dioxide and that climate change risks are prepared for.
- 11.2 The statutory obligations imposed on the Councils were increased in June 2019 by the introduction of the Climate Change Act 2008 (2050 Target Amendment) Order 2019, SI 2019/1056. This instrument increases the required percentage reduction of greenhouse gas emissions from at least 80% to at least 100% by 2050.
- 11.3 Section 111 of the Local Government Act 1972 enables the Council to do anything that is calculated to facilitate, or which is conducive or incidental to, the discharge of any of their functions.

Legal Officer: Susan Sale

Date: 22nd October 2020

## Background Papers

- [Working towards the 2030 target - Adur & Worthing Councils' Carbon Neutral Plan \(JSC 3/12/19\)](#)

- Adur & Worthing Councils [Carbon Neutral Plan](#)
- Adur & Worthing Councils [Platforms for our Places](#)
- Adur & Worthing Councils [SustainableAW](#)
- [BEIS, 'Emissions Reduction Pledge 2020: Guidance for emissions reporting in the public and higher education sectors in England 2018-2020'](#)
- [Public Sector Decarbonisation Fund](#)
- [UK 100 Cities Pledge](#)
- [Climate Change Act 2008 \(2050 Target Amendment\) Order 2019](#)

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## **Sustainability & Risk Assessment**

### **1. Economic**

Transition to a low carbon economy is vital to provide future energy systems resilience, and to address and reduce potential impacts of climate change. Improved energy efficiency across the councils' assets reduce ongoing revenue requirements for energy purchasing.

### **2. Social**

#### **2.1 Social Value**

By securing affordable, low carbon energy into the future, the councils protect budgets from future energy price rises, drawing less budget into council operational costs away from services delivery that benefit local communities.

#### **2.2 Equality Issues**

The impacts of climate change are predicted to impact on all communities, but the greatest impact is predicted to impact the most vulnerable communities. It is imperative that all is done to mitigate climate change.

#### **2.3 Community Safety Issues (Section 17)**

No impacts identified

#### **2.4 Human Rights Issues**

The impacts of climate change are predicted to impact on all communities, but the greatest impact is predicted to impact the most vulnerable communities. It is imperative that all is done to mitigate climate change.

### **3. Environmental**

The key driver for ongoing carbon reduction is to mitigate the predicted catastrophic impacts of climate change on the environment, economy and communities.

### **4. Governance**

The reporting and management of carbon reduction emissions show leadership in response to our declaration of a climate emergency. This aligns with national legislation (the Climate Change Act 2008); national and regional policy, and the councils own policy.