TABLE OF CONTENTS

Required

PART 1: PROFILE OF REPORTING BODY

PART 2: GOVERNANCE, MANAGEMENT AND STRATEGY

PART 3: EMISSIONS, TARGETS AND PROJECTS

PART 4: ADAPTATION

PART 5: PROCUREMENT

PART 6: VALIDATION AND DECLARATION

Recommended Reporting: Reporting on Wider Influence RECOMMENDED – WIDER INFLUENCE OTHER NOTABLE REPORTABLE ACTIVITY

PART 1: PROFILE OF REPORTING BODY

| 1(a) Name of reporting bod | у |
|----------------------------|---|
| Angus Council | |

| 1(b) Type of body | |
|-------------------|--|
| Local Government | |

1(c) Highest number of full-time equivalent staff in the body during the report year 3900

| 1(d) Metrics used by the body | | | | | | | | | | | |
|--|------------|---|--|--|--|--|--|--|--|--|--|
| Specify the metrics that the body uses to assess its performance in relation to climate change and sustainability. | | | | | | | | | | | |
| Metric Value Comments | | | | | | | | | | | |
| m2 | 269825 | Source: Angus Council Estates Team | | | | | | | | | |
| population | | https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2017 | | | | | | | | | |
| | Unit m2 | Unit Value 269825 | | | | | | | | | |

| 1(e) Overall budget of | (e) Overall budget of the body | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| Specify approximate £/annum for the report year. | | | | | | | | | | | |
| Budget | Budget Comments | | | | | | | | | | |
| 251868000 | https://www.nrscotland.gov.uk/statistics-and- | | | | | | | | | | |
| | data/statistics/statistics-by-theme/population/population- | | | | | | | | | | |
| | estimates/mid-year-population-estimates/mid-2017 | | | | | | | | | | |
| | | | | | | | | | | | |

| 1(f) Report year | |
|----------------------------|----------------------|
| Specify the report year. | |
| Report Year | Report Year Comments |
| Financial (April to March) | |

1(g) Context

Provide a summary of the body's nature and functions that are relevant to climate change reporting.

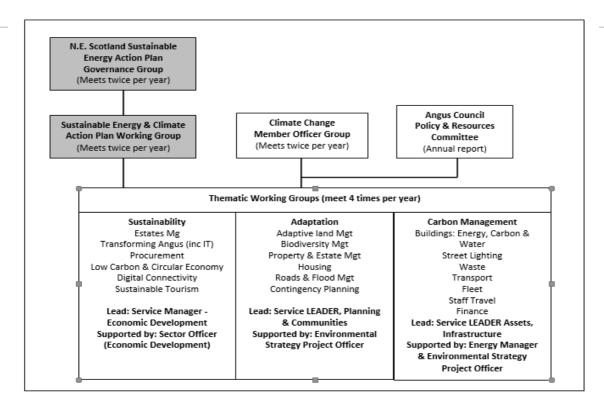
The local authority comprises two services within a diverse estate. The scope of this report covers operational estate and emissions that the Council directly controls. The built estate incorporates offices, schools/nurseries and community buildings. Since December 1st 2015, all leisure/ library buildings are operated by Angus Alive (Cultural and Leisure Trust). The Council continues to share facilities and asset mangement of these properties. The Council has an operational fleet. Where staff mileage is calculated, commuting is not included. The Council also records emissions which arise from municipal waste and from water supply and treatment.

PART 2: GOVERNANCE, MANAGEMENT AND STRATEGY

2(a) How is climate change governed in the body?

Provide a summary of the roles performed by the body's governance bodies and members in relation to climate change. If any of the body's activities in relation to climate change sit outside its own governance arrangements (in relation to, for example, land use, adaptation, transport, business travel, waste, information and communication technology, procurement or behaviour change), identify these activities and the governance arrangements.

Responsibility for governing delivery of carbon management and wider climate change obligations lies with the Climate Change Member Officer Group, which oversees and is informed by dedicated working groups dealing with carbon emissions, adaptation and sustainability. Progress on both tiers is reported to the Communities Committee. It is also fed up to the regional Sustainable Energy & Climate Action Plan group. See attached diagram. (Figure 1) >



2(b) How is climate change action managed and embedded by the body?

Provide a summary of how decision-making in relation to climate change action by the body is managed and how responsibility is allocated to the body's senior staff, departmental heads etc. If any such decision-making sits outside the body's own governance arrangements (in relation to, for example, land use, adaptation, transport, business travel, waste, information and communication technology, procurement or behaviour change), identify how this is managed and how responsibility is allocated outside the body (JPEG, PNG, PDF, DOC)

Climate Change Member Officer Group - comprises elected members & senior staff. The remit was recently extended from just CO2 to climate change, incorporating sustainability. The group meet twice yearly to steer and monitor delivery of work plans of the three working groups on carbon emissions (equivalent), adaptation and sustainability. These groups in turn will meet quarterly.

Each working group is chaired by a senior manager and comprises specialist officers and support staff for their topic area. The groups have agreed remits and are commencing work on developing delivery plans spanning the Council's functions.

SECAP Working Group (Sustainable Energy & Climate Change Action Plan) - lead officers & senior managers in work areas with CO2 and adaptation remit. Responsible for exploring the potential for utilising the SECAP model.

Angus Council has adopted targets to reduce carbon emissions, energy and water use by 2020. Targets have been allocated to operational areas of the Council estate. Responsibility for attaining these targets lies with relevant senior managers who receive quarterly reports on progress against targets.

2(c) Does the body have specific climate change mitigation and adaptation objectives in its corporate plan or similar document?

Provide a brief summary of objectives if they exist.

| Objective | Doc Name | Doc Link |
|---|---|--|
| LOIP outcomes include: Inclusive & sustainable economy Safe, secure, vibrant & sustainable communities Reduced carbon footprint | Angus Local Outcomes Improvement Plan 2017-2030 | https://www.angus.gov.uk/me dia/angus_local_outcomes_i mprovement_plan |

2(d) Does the body have a climate change plan or strategy?

If yes, provide the name of any such document and details of where a copy of the document may be obtained or accessed.

Carbon Management Plan 2014-2020

http://archive.angus.gov.uk/ccmeetings/reports-committee2013/CorporateServices/353.pdf

The previous climate change and sustainability strategy is due to be replaced by a Sustainable Energy & Climate Action Plan, (SECAP), which is currently under development (undergoing SEA). The Council does have a draft SECAP but it is not publicly available by link. A copy can be supplied.

2(e) Does the body have any plans or strategies covering the following areas that include climate change? Provide the name of any such document and the timeframe covered. Topic area Time period Name of document Link **Comments** Climate Change Strategy and Action Plan http://www.angus.gov.uk/downloads/file/1393/cli 2012-2016 To be replaced by SECAP which is Adaptation currently under development mate_change_strategy_and_action_plan_2012 2012 - 2016 _-_2016 Link not yet publicly available Angus Council Travel Plan 2017 Document produced by Business travel 2017 31/03/2017 however committee approval pending submission of summary version. Staff Travel Angus Council Travel Plan 2017 Link not yet publicly available 2017 Document produced by 31/03/2017 however committee approval pending submission of summary version. Energy efficiency Carbon Reduction Action Plan http://archive.angus.gov.uk/ccmeetings/reports- 2014-2020 Fleet transport Vehicle replacement programme 2017/18 https://www.angus.gov.uk/media/agenda_item_ 2017/18 20_report_no_18117_vehicle_replacement_pro Client Computing and BYOD Link not publically available 2018 Document Produced Information and communication technology http://archive.angus.gov.uk/ccmeetings/reports- 2014-2020 Renewable energy Carbon Reduction Action Plan committee2013/CorporateServices/353.pdf Sustainable/renewable heat http://archive.angus.gov.uk/ccmeetings/reports- 2014-2020 Carbon Reduction Action Plan Waste management https://www.sepa.org.uk/environment/waste/wa There is currently no overreaching strategy document for waste ste-data/waste-data-reporting/waste-data-formanagement and direction scotland/ continues to be taken from the Zero Waste Plan for Scotland and the Council Plan. See guestion 2H for further information.

| Water and sewerage | Water Management - A Corporate Commitment | https://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch3.pdf | | One of the outcomes of Angus council's first application for the Carbon Trust Standard for Water in 2015 was a recommendation to revisit the target for water consumption. In 2016 the Water Annual Report sought approval of a corporate 5% target for the reduction in water consumption based on 2011/12 levels by 2020. https://www.angus.gov.uk/sites/angus-cms/files/2017-07/294.pdf |
|--|---|---|----------------|--|
| Land Use | River South Esk Catchment Partnership Management Plan | http://theriversouthesk.org/assets/Docs/riversouth-esk-plan-dec09.pdf | 2009 onwards □ | |
| Other (state topic area covered in comments) | | | | |
| Business travel | Car Park Management Plan | Link not yet publicly available | 2017 | Document produced |
| Land Use | Angus Local Development Plan 2016 - 2021 | https://www.angus.gov.uk/directories/document _category/development_plan [] | 2016-2021 🗆 | |
| Land Use | Strategic Development Plan (Tayplan) 2012 - 2032 | http://www.tayplan-sdpa.gov.uk/strategic_development_plan | 2012-2032 🗆 | |
| Land Use | Angus Shoreline Management Plan 2 | https://www.angus.gov.uk/media/smp2-main-document | 2017 onwards □ | |
| Other (state topic area covered in comments) | Angus Economic Strategy □ | http://www.angus.gov.uk/sites/angus-cms/files/Angus_Economic_Development_Strategy_2013_2020.pdf | 2013-2020 🗆 | Economic development with links to circular and low carbon economy |
| Adaptation | Tayside Local Biodiversity Action Plan | http://www.taysidebiodiversity.co.uk/wp-content/uploads/2016/08/Tayside-LBAP-report- | 2016-26 🗆 | |
| Energy efficiency | Carbon Reduction Commitment Annual Report 2016/17 | https://www.angus.gov.uk/sites/angus- cms/files/2017-08/257_Sch1.pdf | 2016/17 | |

2(f) What are the body's top 5 priorities for climate change governance, management and strategy for the year ahead?

Provide a brief summary of the body's areas and activities of focus for the year ahead.

- Work with other local authorities in the north east to develop a Sustainable Energy Climate Action Plan (SECAP). Review of policy landscape like to align with this.
- Strenghten governance, management and strategy utilising outputs of Climate Change Assessment Tool. Develop mechanism & processes of the Climate Change Member Officer Group & dedicated work groups on Carbon, Adaptation & Sustainability to embed considering of each in all Council functions.
- Optimise sustainability opportunities through implementation of the Transforming Angus programme which offers resource efficiencies through estate rationalisation, greater use of IT, reduced staff travel and commuting.
- Implement Active Travel Plan & support Change Programme to consolidate estate, encourage home working and reduce staff travel through Smart Working programme.

| Implement Angus Shoreline | Management Plan 2 & Angus | Local Development Plan | |
|---|---------------------------|------------------------|--|
| | | | |

2(g) Has the body used the Climate Change Assessment Tool(a) or equivalent tool to self-assess its capability / performance?

If yes, please provide details of the key findings and resultant action taken.

The Council's 2nd Climate Change Assessment Tool (CCAT) workshop was carried out in July 2017 through a workshop comprising 14 officers from across all services. The group appraised and scored the Council's existing performance on the specified areas as follows:

- 1. Governance (39%, previously 43%)
- 2. Emissions (77% previously 77%)
- 3. Adaptation (46% previously 43%)
- 4. Behaviour (55% previously 50%)
- 5. Procurement (13% previously 19%)

Overall score (56% previously 49%)

The paper set out a SWOT (strengths, weaknesses opportunities and threats) analysis for Angus Council which identified key strengths including:-

- The long standing Carbon Member Officer Group superseded by more widely ranging climate change MOG, supported by Working Groups focusing on adaptations, carbon reduction and sustainable development;
- Corporate commitment to both annual and 2020 climate change related targets to reduce greenhouse gas emissions plus building and street lighting energy use;
- Area wide commitment evidenced through signing up to deliver a Sustainable Energy and Climate Change Plan moving beyond operational boundaries to lead the wider area by example;
- Track record of assessing impacts of severe weather events through conducting two Climate Change Impact Assessments, approving policies and flood management, coastal management and a number of additional natural flood management strategies through partnership working;
- Angus Council had been ranked in the top three Scottish Local Authorities for household recycling rates and a strong record for public reporting on climate change through Scotland's Change Declaration.

The paper also detailed key areas for improvement relating to emissions, adaptations and procurement. The paper set out an action plan, as undernoted

Action Priority 1 to work through the new Sustainable Development Working Group to produce and adopt a new area wide Sustainable Energy and Climate Action Plan.

Action Priority 2 – to work through new Carbon Working Group to identify projects that were being developed to meet the Council's annual and national 2020 emissions and reduction targets, using the results to produce and monitor a Carbon Management Plan with a detailed action plan.

Action Priority 3 – to work through the new Adaptation Working Group to produce a strategic approach to adaptation, complete with detailed action plan.

Action Priority 4 – to work through all of these groups to engage staff, using Transforming Angus processes as an opportunity to embed more sustainable practices in staff behaviour.

Action Priority 5 – to work through the Corporate Procurement Group to develop and implement a sustainable procurement action plan.

The Group noted the paper and that the actions within the Action Plan would be taken forward through the relevant working groups

2(h) Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to governance, management and strategy.

- The principal of promoting sustainable transport supported by well-located and accessible development, incorporated in the TAYplan SDP, has been carried forward in the new Angus LDP Proposed Plan. This was further enhanced by the Active Travel Strategy which was produced during 2015/16.
- 48% of schools in Angus have a Travel Plan in place or are currently undertaking travel plan activities.
- Long term Adaptation projects are included strategies such as:
- The 2nd Edition Tayside Biodiversity Action Plan (covering the period 2016-26). http://www.taysidebiodiversity.co.uk/
- Sustainability and resource efficiency are central to Angus Council's transformation agenda with significant progress during 2015/16 on: Angus Digital; Improved Business Processes; Improved Customer Experience; Agile Working and Estates Review.

 http://www.angus.gov.uk/sites/angus-cms/files/2017-07/323 0.pdf & http://www.angus.gov.uk/sites/angus-cms/files/2017-07/46 0.pdf
- Waste Angus Council had the 3rd highest household recycling rate in Scotland in 2016/17 and one of the highest diversion rates from landfill. In November 2017 Angus Council in partnership with Dundee City Council commenced a 28 year contract with MVV Environmental Baldovie for the treatment of residual waste at a thermal treatment plant in Dundee. This means that all household residual waste in Angus will now be delivered to a thermal Waste to Energy plant rather than landfill, and as a result the Angus Council landfill at Restenneth, Forfar closed on 31 March 2018. A review of recycling centre provision in Angus is ongoing and recommendations to be submitted to Council later in 2018 and a key objective will be to maximise the amount collected for recycling via these facilities.

PART 3: EMISSIONS, TARGETS AND PROJECTS

3a Emissions from start of the year which the body uses as a baseline (for its carbon footprint) to the end of the report year

Complete the following table using the greenhouse gas emissions total for the body calculated on the same basis as for its annual carbon footprint /management reporting or, where applicable, its sustainability reporting. Include greenhouse gas emissions from the body's estate and operations (a) (measured and reported in accordance with Scopes 1 & 2 and, to the extent applicable, selected Scope 3 of the Greenhouse Gas Protocol (b)). If data is not available for any year from the start of the year which is used as a baseline to the end of the report year, provide an explanation in the comments column.

(a) No information is required on the effect of the body on emissions which are not from its estate and operations.

| Reference Year | Year | Scope1 | Scope2 | Scope3 | Total | Units | Comments |
|---------------------------|---------|--------|--------|--------|-------|-------|---|
| Baseline carbon footprint | 2010/11 | 11170 | 13848 | 0 | 25018 | tCO2e | 2010/11 is the baseline year for the Carbon Management Plan. Full data is available for Scopes 1 & 2 and has been verified through the Carbon Trust Standard. Reliable historical data relating to Scope 3 is |
| Year 1 carbon footprint | 2011/12 | 10490 | 13452 | 7485 | 31427 | tCO2e | Full data is available for Scopes 1 & 2 and has been verified through the Carbon Trust Standard. Scope extended to include waste and water. |
| Year 2 carbon footprint | 2012/13 | 11751 | 13727 | 11105 | 36583 | tCO2e | Full data is available for Scopes 1 & 2 and has been verified through the Carbon Trust Standard. Scope extended to include waste and water. |
| Year 3 carbon footprint | 2013/14 | 10766 | 13295 | 8870 | 32931 | tCO2e | Full data is available for Scopes 1 & 2 and has been verified through the Carbon Trust Standard. Scope extended to include waste and water. |
| Year 4 carbon footprint | 2014/15 | 10385 | 13674 | 7229 | 31288 | tCO2e | Full data is available for Scopes 1 & 2 and has been verified through the Carbon Trust Standard. Scope extended to include waste and water. |
| Year 5 carbon footprint | 2015/16 | 9870 | 12477 | 9102 | 31449 | tCO2e | Full data is available for Scopes 1 & 2 and has been verified through the Carbon Trust Standard 2017 reaccreditation. Scope extended to include waste and water. |
| Year 6 carbon footprint | 2016/17 | 9078 | 10534 | 10242 | 29854 | tCO2e | Full data is available for Scopes 1 & 2 and has been verified through the Carbon Trust Standard 2017 reaccreditation. Scope extended to include waste and water |
| Year 7 carbon footprint | 2017/18 | 9421 | 8498 | 10806 | 28725 | tCO2e | Full data is available for Scopes 1 & 2 and has been verified through the Carbon Trust Standard 2017 reaccreditation. Scope extended to include waste and water |
| Year 8 carbon footprint | 2018/19 | 9044 | 6492 | 3762 | 19297 | tCO2e | Full data is available for Scopes 1, 2 & 3 |

3b Breakdown of emission sources

Complete the following table with the breakdown of emission sources from the body's most recent carbon footprint (greenhouse gas inventory); this should correspond to the last entry in the table in 3(a) above. Use the 'Comments' column to explain what is included within each category of emission source entered in the first column. If, for any such category of emission source, it is not possible to provide a simple emission factor(a) leave the field for the emission factor blank and provide the total emissions for that category of emission source in the 'Emissions' column.

| Total | Comments – reason for | Emission source | Scope | Consumption | Units | Emission | Units | Emissions Comments |
|-------|-----------------------|---|---------|-------------|--------|----------|---------------|--|
| 1 | 19297 | Grid Electricity (generation) | Scope 2 | 22933716 | kWh | 0.28307 | kg CO2e/kWh | 6491.8 Source: Angus Council Energy Management Unit |
| | | Grid Electricity (transmission & amp; distribution losses) | Scope 3 | 22933716 | kWh | 0.02413 | kg CO2e/kWh | 553.4 Source: Angus Council Energy Management Unit |
| | | Natural Gas | Scope 1 | 32858270 | kWh | 0.18396 | kg CO2e/kWh | 6044.6 Source: Angus Council Energy Management Unit |
| | | Gas Oil | Scope 1 | 339726 | kWh | | kg CO2e/kWh | 93.9 Source: Angus Council Energy Management Unit |
| | | Fuel Oil | Scope 1 | 27173 | | | kg CO2e/kWh | 7.2 Source: Angus Council Energy Management Unit |
| | | Burning Oil (Kerosene) | Scope 1 | 696083 | | | kg CO2e/kWh | 171.7 Source: Angus Council Energy Management Unit |
| | | Biomass Wood Chips | Scope 1 | 1339072 | kWh | 0.01506 | kg CO2e/kWh | 20.2 Source: Angus Council Energy Management Unit |
| | | Biomass Wood Pellets | Scope 1 | 13800 | kWh | 0.01506 | kg CO2e/kWh | 0.2 Source: Angus Council Energy Management Unit |
| | | Water - Supply | Scope 3 | 159542 | m3 | 0.344 | kg CO2e/m3 | 54.9 Source: Angus Council Energy Management Unit |
| | | Water - Treatment | Scope 3 | 140161 | m3 | 0.708 | kg CO2e/m3 | 99.2 Source: Angus Council Energy Management Unit |
| | | Average Car - Unknown Fuel | Scope 3 | 2221807 | | | kg CO2e/mile | 645.9 Source: Angus Council Payroll |
| | | Diesel (average biofuel blend) | Scope 1 | 1030184 | | | kg CO2e/litre | 2706.2 Source: Tayside Contracts |
| | | Refuse Municipal to Landfill | Scope 3 | | tonnes | | kg CO2e/tonne | 1397.6 Calendar year 2019 unconfirmed by SEPA |
| | | Refuse Commercial & Domestial | Scope 3 | | tonnes | | kg CO2e/tonne | 67.9 Calendar year 2019 unconfirmed by SEPA |
| | | Batteries Recycling | Scope 3 | | tonnes | | kg CO2e/tonne | 0.3 Calendar year 2019 unconfirmed by SEPA |
| | | Organic Food & Drink AD | Scope 3 | | tonnes | | kg CO2e/tonne | 75.2 Calendar year 2019 unconfirmed by SEPA |
| | | Organic Garden Waste | Scope 3 | | tonnes | | kg CO2e/tonne | 99.7 Calendar year 2019 unconfirmed by SEPA |
| | | Paper & Board (Mixed) | Scope 3 | | tonnes | | kg CO2e/tonne | 21.5 Calendar year 2019 unconfirmed by SEPA |
| | | WEEE (Mixed) Recycling | Scope 3 | 1073 | tonnes | | kg CO2e/tonne | 23.0 Calendar year 2019 unconfirmed by SEPA |
| | | Glass Recycling | Scope 3 | 417 | tonnes | | kg CO2e/tonne | 8.9 Calendar year 2019 unconfirmed by SEPA |
| | | Metal Cans (Mixed) & Detal | Scope 3 | 883 | tonnes | | kg CO2e/tonne | 18.9 Calendar year 2019 unconfirmed by SEPA |
| | | Refuse Municipal /Commercial | Scope 3 | | tonnes | | kg CO2e/tonne | 493.2 Calendar year 2019 unconfirmed by SEPA |
| | | Mixed recycling | Scope 3 | 9439 | tonnes | 21.4 | kg CO2e/tonne | 202.0 Calendar year 2019 unconfirmed by SEPA |

3c Generation, consumption and export of renewable energy Provide a summary of the body's annual renewable generation (if any), and whether it is used or exported by the body. Renewable Electricity Renewable Heat **Technology** Total Total consumed Total Total Comments consumed by exported by the exported Solar PV 277044 63997 0 0 Information taken from main PV recording sheet. 5 sites export based on 'deemed rate' (50% of generation), as per Feed in Tariff contract. 3 sites recording via export meter. 2 sites currently based on 'deemed rate' but awaiting export meter to be installed. 3 sites not recorded as awating export meter installation. 2 sites - no export applicable. Solar thermal 4625 Information taken from recorded reads at only solar thermal site - Isla Primary School. The meter is only read at the end of financial year and it appears that there has been an issue on site and that the meter may have re-set at some point. Renewable heat element taken from Systemslink billing **Biomass** 1352872 information for all 7 sites with Biomass with a total heat output of 1574 kW. Issues with 3 sites (Tannadice PS, Kinloch House and Montrose SC), this has resulted in reduced biomass running hours during 2018/19.

3d Targets

List all of the body's targets of relevance to its climate change duties. Where applicable, overall carbon targets and any separate land use, energy efficiency, waste, water, information and communication technology, transport, travel and heat targets should be included.

| Name of Target | Type of Target | Target | Units | Boundary/scope of Target | Progress against | Year used as | Baseline figure | Units of baseline | Target completion | Comments |
|---|-------------------|--------|-----------------|-----------------------------|------------------|-----------------|-----------------|-------------------|-------------------|--|
| Corporate energy consumption reduction target | percentage | 22.64 | kWh reduction | All energy use | 81.1 | 2010/11 | 77801796 | kWh | 2019/20 | Annual reduction consumption target of 2%; we achieved a 7.7 % reduction in 2018/19 on previous year. |
| Corporate Carbon Dioxide reduction target | percentage | 26.32 | tCO2e reduction | All energy use | 135.84 | 2010/11 | 25132.49 | tCO2e | 2019/20 | Annual reduction consumption target of 3%; we achieved a 17.3 % reduction in 208/19 on previous year. We reached our 2020 target in 2016/17. |
| Corporate water consumption reduction target | percentage | 33.6 | M3 reduction | Water and sewerage | 136.45 | 2011/12 | 257500 | M3 | 2019/20 | In 2016/17 there was a corporate adoption of a 5% reduction in water consumption based on 2011/12 baseline. We achieved a 2.5 % reduction on previous year and have met our target in 2018/19. |

3e Estimated total annual carbon savings from all projects implemented by the body in the report year Total **Emissions Source** Total estimated Comments 111 Information provided from Master Project 6482 Electricity Sheet that sits in house with Energy Team and Street lighting data provided by Roads Dept on savings from lighting conversions Natural gas 0 No projects for gas this year Other heating fuels 0 No projects for Oil/LPG or Biomass this year Waste 6371 Water and sewerage 0 Water projects - continue to do small scale **Business Travel** Fleet transport Other (specify in comments)

3f Detail the top 10 carbon reduction projects to be carried out by the body in the report year

royide details of the 10 projects which are estimated to achieve the highest carbon sayings during report year.

| Project name | Funding source | First | Are these | Capital | Operational | Project | Primary | Estimated carbon | Estimated | Behaviour | Comments |
|---|-----------------------|---------|-----------|----------|-------------|----------|---|------------------|-----------|--|--|
| | | full | savings | cost (£) | cost | lifetime | fuel/emission | savings per year | costs | Change | |
| Montrose Sports Centre | Salix | 2018/19 | Estimated | £178,520 | | 20 | Grid Electricity | 60.1 | 21691 | | Install 198.75kW Solar PV array |
| Digital Reprographics Unit and IT Data Centre | Salix | 2018/19 | Estimated | £48,755 | | 20 | Grid Electricity | 15.7 | 6722 | | Install 49.4kW Solar PV array |
| Domestic waste shifted from landfill disposal to energy from waste | | 2018/19 | Estimated | | | 20 | Refuse Municipal to Landfill | 6474 | | | |
| Commercial waste shifted from landfill disposal to energy from waste | | 2018/19 | Estimated | | | 20 | Refuse Commercial & Description & Amp; Industrial to Landfill | 495 | | | |
| Reconfiguration of recycling centres | | 2018/19 | Estimated | | | 20 | Mixed recycling | | | Behaviour of general public & businesses & improved infrastructure | The tonnage of recyclate collected increased by 21% over the period. Ordinarily this would bring significant CO2 savings but changes to calculation methodology hide this. |
| Improvements to street lighting | Salix | 2018/19 | Estimated | | | 20 | Grid Electricity | 468 | | | Street lighting team continue to hit their target of annual 10% reduction in energy use. Awaiting further details. |
| Bruce House | Salix | 2018/19 | Estimated | £49,327 | | 20 | | 15.6 | 4966 | | Install 46.64kW Solar PV array |
| Lochands Resource | Salix | 2018/19 | Estimated | £11,525 | | 20 | | 4.7 | 918 | | Upgrade to LED lighting with controls |
| Seaton Grove | Salix | 2018/19 | Estimated | £11,762 | | 20 | | 3.8 | 1684 | | Upgrade lounges and offices to LED lighting with controls |
| Gowanlee First Floor | Salix | 2018/19 | Estimated | £15,495 | | 20 | | 2.7 | 1084 | | Upgrade to LED lighting with controls □ |

3g Estimated decrease or increase in the body's emissions attributed to factors (not reported elsewhere in this form) in the report year

If the emissions increased or decreased due to any such factor in the report year, provide an estimate of the amount and direction.

| Total | | | Increase or decrease in | Comments |
|-------|-----------------------------|---|-------------------------|---|
| 0 | Estate changes | 0 | decrease | 100,341 kWh reduction estimated |
| | Service provision | 0 | decrease | 3644 m3 reduction estimated |
| | Staff numbers | 0 | | Majority of changes will already have been accounted for in previous sections |
| | Other (specify in comments) | | | |

| Total | | Source | Saving | Comments |
|-------|------|-----------------------------|--------|--|
| | 7540 | Electricity | | 430,776 kWh - LED lighting and street lighting |
| | | | | various |
| | | Natural gas | 0 | Unknown |
| | | Other heating fuels | 0 | Unknown |
| | | Waste | 6969 | |
| | | Water and sewerage | | Unknown |
| | | Business Travel | | Unknown |
| | | Fleet transport | | Unknown |
| | | Other (specify in comments) | | |

| 3i Estimated decrease or increase in the body's emissions attributed to factors (not reported elsewhere in this form) in the year ahead | | | | |
|--|-----------------------------|-----------------|-------------|---|
| If the emissions are likely to increase or decrease due to any such factor in the year ahead, provide an estimate of the amount and direction. | | | | |
| Total | Emissions source | Total estimated | Increase or | Comments |
| 0 | Estate changes | 0 | | Majority of changes will already have been accounted for in previous sections |
| | Service provision | 0 | | Majority of changes will already have been accounted for in previous sections |
| | Staff numbers | 0 | | Majority of changes will already have been accounted for in previous sections |
| | Other (specify in comments) | | | |

3j Total carbon reduction project savings since the start of the year which the body uses as a baseline for its carbon footprint

If the body has data available, estimate the total emissions savings made from projects since the start of that year ("the baseline year").

| Total | Comments |
|-------|--|
| 5720 | 2010/11 was chosen as the baseline year to capture significant energy & CO2 projects around the built estates. Based on that year, 2018/19 saw a decrease of CO2 by 23%. A truer reflection of change comes from year 3 of 2012/13 when the full data set became available and the emission factor for waste was recalibrated. This can be seen as the first year of good quality data - between 2012/13 and 2018/19 there has been a 47% decrease in CO2 emissions. |

3k Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to its emissions, targets and projects.

RATIONALISING ESTATE - A recent review of the impact of estate rationalisation on utilities consumption highlights that since 2013, 32 buildings are in the process of being sold/leased/demolished/otherwise removed from Angus Council estate. Resource consumption associated with these buildings suggests annual reductions of energy of -2,839,736 kWh (804 C02e tonnes) and of water of 6,978 m3 CO2e tonnes.

STREET LIGHTING -corporate commitment to reduce energy used in street lighting of 10% attained again in 2018/19.

WASTE MANAGEMENT - A major achievement was the switch from landfilling to energy from waste plant which slashed CO2 emissions for domestic and commercial waste collection.

PART 4: ADAPTATION

4(a) Has the body assessed current and future climate-related risks?

If yes, provide a reference or link to any such risk assessment(s).

Yes, assessments have been carried and reported through the following documents:

- Angus Council Emergency Plan
 https://www.angus.gov.uk/media/angus_council_emergency_plan
- Angus Local Climate Impacts Profile (LCLIP) 1st edition https://www.angus.gov.uk/media/angus-local-climate-impacts-profile-lclip-1st-edition
- Angus Local Climate Impacts Profile (LCLIP) 2nd edition
 https://www.angus.gov.uk/media/angus-local-climate-impacts-profile-lclip-2nd-edition
- North of Scotland, Resilience Partnership Community Risk Register http://www.firescotland.gov.uk/media/864538/north_crr_version_1.2.pdf
- 2016/17 period saw development work on the Local Flood Risk Management Plan (approved June 2016) https://www.angus.gov.uk/the_environment/flooding_and_coastal_erosion/tay_estuary_and_montrose_basin_local_flood_risk

4(b) What arrangements does the body have in place to manage climate-related risks?

Provide details of any climate change adaptation strategies, action plans and risk management procedures, and any climate change adaptation policies which apply across the body.

• The Angus Local Development Plan 2016 (ALDP) contains PV12 Managing Flood Risk which states that to reduce potential risk from flooding, there will be a general presumption against built development proposals on the functional floodplain; which involve land raising resulting in the loss of the functional flood plain; or which would materially increase the probability of flooding to existing or planned development. Policy PV13 Resilience and Adaptation explores resilience to the effects of climate change such as flood and drought, extreme weather events and rising sea levels. In future Angus Council may require development proposals to incorporate adaptation measures policy PV16 Coastal Planning supports a precautionary approach to potential impacts of coastal flooding. The ALDP is supported by an Environmental Report and Strategic Flood Risk Assessment which influenced plan development in light of some climate change impact.

Angus Council as Lead Local Authority for the Tay Estuary and Montrose Basin Local Plan District continue to deliver the actions in the Local Flood Risk Management Plan for Tay Estuary and Montrose Basin Local Plan District

http://apps.sepa.org.uk/FRMStrategies/pdf/lpd/LPD_07_FRMIS.pdf - and are partners on the Tay Local Plan District, which is led by Perth & Kinross Council.

- Tayside Local Asset Resilience Register is maintained and developed. It is a list of community/ voluntary groups that can be called to action in the event of severe weather events.
- Continue to support the Resilient Business & Communities working group.
- Held a one stop shop for flooding for communities in Spring 2017 with a view to running further community resilience events in 2018.
- We continue to explore capacity building e.g. first aid training, tie in with other community health empowerment initiatives such as issuing of defibrulators.
- We continue to support and develop a number of active community groups, especially those at risk of getting cut off in severe weather conditions.
- We continue to work with schools to build resilience number of pilot schools involved.
- Use of SALIX funding projects to reduce the Councils'CO2 emissions for all non housing properties. A few related work streams have progressed holding fuel poverty and energy efficiency advice sessions for front line council staff to then convey the message to the public; developing a below tolerable standard strategy; improving our web-based advice/info sections relating to property condition.

4(c) What action has the body taken to adapt to climate change?

Include details of work to increase awareness of the need to adapt to climate change and build the capacity of staff and stakeholders to assess

Angus Council through the Cairngorm National Park Authority joint catchments project continue to investigate landscape scale approaches to natural flood management, riparian tree planting schemes and peatland restoration, all of which are excellent land use management approaches to mitigate against the effects of climate change and provide innovative adaptation examples. Good practice is explored in catchments such as the Tweed and Dee who have been involved in the Land Use Strategy Pilot schemes.

Treatment of Invasive Non-Native Species (INNS) during 2018/19, particularly along river corridors has helped to reduce soil erosion in high spate events, thereby increasing the stability of the river bank during severe weather events. Himalayan balsam is proving to be very invasive, luckily, volunteer effort to control the plant in some areas has been quite successful. The Scottish Invasive Species Initiative, now in its second year, has successfuly increased the volunteer pool with INNS treatment skills.

http://theriversouthesk.org/projects/hogweed-and-knotweed-control/

Brechin Flood Prevention Scheme was completed and opened in October 2106. The 1.5km of flood embankments and walls up to 1.8m high have been installed along the north bank of the River South Esk to provide a 1 in 200 yr. flood defence. Environmental improvements have been delivered on site increasing native biodiversity and opportunities for access and outdoor learning.

https://www.angus.gov.uk/the environment/flooding and coastal erosion/brechin flood prevention scheme

Arbroath (Brothock Water) Flood Protection Scheme - which is ranked nationally as a priority project and is an action in the Tay Estuary and Montrose Basin Local Flood Risk Management Plan - has been the subject of formal notification and construction is anticipated to commence in late 2019 for completion before 2022.

https://www.angus.gov.uk/the_environment/flooding_and_coastal_erosion/arbroath_brothock_water_flood_prevention_scheme

The River South Esk catchment has seen further watercourses restored and reconnected to their natural flood plain over 2018/19. Particularly notable are phases 2&3 of the the Pow Burn restoration in the lower catchment. These improvements were achieved through the creation of 915m of second-stage channels, the removal of 350m of embankments in places, and the setting back of 350m of existing river bank to provide re-connection of relict meander features currently cut off from the channel. The site has been used in 2017/18 as good practice site and the Angus Council Climate Change Member Officer Group visited the site to witness adaptation in practice. https://www.youtube.com/watch?v=2TGKyb496mw Work on the Pow Burn in Montrose

Previously, a large scale forestry project aimed at reducing peak flows in the upper South Esk catchment saw contour tree planting take place in two areas of Glen Clova and Doll. This follows the example of work carried out in a number of studies, where it has been found that tree planting along the contours of a hillside can result in a flood peak reduction of around 40%. Funding for further large scale planting (£3.2million) is in place and the planting of 165 Ha (246,000) trees began in spring 2019. http://theriversouthesk.org/projects/contour-planting/

"Our Rivers" LEADER Transnational Cooperation Project - River South Esk Catchment Partnership -The overall purpose of the project is to facilitate the creation of resilient, innovative and prosperous Communities on a landscape scale. Transnational meetings, river twinning and six community workshops will take place in Angus. The overall project focus is on collaborative river management, invasive non-native species control, climate change resilience and community volunteering http://theriversouthesk.org

The Angus LDP 2016 promotes renewable and low carbon energy development (Policy PV9), heat mapping, heat networks and decarbonised heat (Policy PV10) and energy efficiency (Policy PV11) to reduce emissions and our contribution to man made global warming. Policy PV9 is supported by Renewable and Low Carbon Energy Development Supplementary Guidance which sets out the spatial framework for onshore wind energy and detailed criteria to assist the preparation and assessment proposals for renewable and locarbon energy development.

Montrose Bay is a Super Site under the Scottish Government's Dynamic Coast project. The project is establishing ther effectes of climate change on our coastline with the latest mapping and modelling. An adaptation plan is under development for publication in 2019/20.

4(d) Where applicable, what progress has the body made in delivering the policies and proposals referenced N1, N2, N3, B1, B2, B3, S1, S2 and S3 in the Scottish Climate Change Adaptation Programme(a) ("the Programme")?

If the body is listed in the Programme as a body responsible for the delivery of one or more policies and proposals under the objectives N1, N2, N3, B1,B2, B3, S1, S2 and S3, provide details of the progress made by the body in delivering each policy or proposal in the report year. If it is not responsible for delivering any policy or proposal under a particular objective enter "N/A" in the 'Delivery progress made' column for that objective.

(a) This refers to the programme for adaptation to climate change laid before the Scottish Parliament under section 53(2) of the Climate Change (Scotland) Act 2009 (asp 12) which currently has effect. The most recent one is entitled "Climate Ready Scotland: Scottish Climate Change Adaptation Programme" dated May 2014.

| Objective | Objective reference | Theme | Policy / Proposal reference | Delivery progress made |
|--|---------------------|---------------------|-----------------------------|--|
| Understand the effects of climate change and their impacts on the natural environment. | N1 | Natural Environment | N1-1 | Measuring the effects of climate change on the natural environment is a learning curve and actions are ongoing. The Tayside LBAP published in Aug 2016 takes into account the effects of climate change on a variety of species and habitats. Surveys are undertaken on invasive species movement e.g. Co Coasts and INNS in riverine and estuarine areas in particular. Citizen science projects are developed and supported by the partnership. Montrose Bay is a Super Site under the Scottish Government's Dynamic Coast project. The project is establishing ther effectes of climate change on our coastline with the latest mapping and modelling. An adaptaiton plan is under development for poublication in 2019/20. |

| Support a healthy and diverse natural environment with capacity to adapt. | N2 | Natural Environment | N2-1 | Climate change is embedded in the Tayside LBAP and other policy documents such as SMP2 and Flood Risk Strategies which include flood management and coastal management policies. All three plans favour natural mitigation and adaptation measures where possible, enabling healthy ecosystem services. In the River South Esk Catchment approximately 6 natural flood management schemes implemented and these techniques continue to be explored throughout Angus. |
|---|----|---------------------|------|--|
| Sustain and enhance the benefits, goods and services that the natural environment provides. | N3 | Natural Environment | N3-1 | The ALDP 2016 produced by Angus Council contains Policy PV14 Water Quality, its purpose is to protect and enhance the quality of the water environment. Development proposals will be assessed within the context of: the National Marine Plan; the Scotland River Basin Management Plan and associated Area Management Plans; relevant guidance on controlling the impact of development and associated works; relevant guidance on engineering works affecting water courses; and potential mitigation measures. Embedded in Climate Change Strategy & Action Plan, LBAP, newly developed Local Development Plan and Open Space Strategy. Achieved through documents such as the new LBAP & South River Esk work which focuses on ecosystem scale projects, supporting healthy functioning ecosystems & ecosystem services. Montrose Bay is a Super Site under the Scottish Government's Dynamic Coast project. The first phase of the project has established the benefit natural costal defences have. The project is establishing ther effects of climate change on our coastline with the latest mapping and modelling. An adaptation plan is under development for publication in 2019/20. |

| Understand the effects of climate change and their impacts on buildings and infrastructure networks. | B1 | Buildings and infrastructure networks | B1-1 | Embedded in the newly developed Local Housing Strategy, LBAP, ALDP 2016 and Open Space Strategy. Gradual increase in highlighting impacts and costs of climate change in committee reports. |
|---|----|---------------------------------------|------|--|
| Provide the knowledge, skills and tools to manage climate change impacts on buildings and infrastructure. | B2 | Buildings and infrastructure networks | B2-1 | Embedded in the newly developed Local Housing Strategy, LBAP, ALDP 2016 and Open Space Strategy. |
| Increase the resilience of buildings and infrastructure networks to sustain and enhance the benefits and services provided. | B3 | Buildings and infrastructure networks | B3-1 | Montrose Bay is a Super Site under the Scottish Government's Dynamic Coast project. The project is establishing ther effectes of climate change on our coastline with the latest mapping and modelling. An adaptaiton plan is under development for poublication in 2019/20. |

| Understand the effects of climate change and their impacts on people, homes and communities. | S1 | Society | S1-1 | Embedded in the newly developed Local Housing Strategy, LBAP, newly developed Local Development Plan and Open Space Strategy, supported development of local resilience planning. Have established a Resilient Business & Communities working group. |
|---|----|---------|------|---|
| Increase the awareness of the impacts of climate change to enable people to adapt to future extreme weather events. | S2 | Society | S2-1 | Embedded in the newly developed Local Housing Strategy, Results of both LCLIPs were widely promoted and published to raise corporate and public awareness. Have established a Resilient Business & Communities working group. Working with high schools to raise awareness of resilience. See also Local Flood Risk Management Plans and links to National Flood Risk Assessment by SEPA. |
| Support our health services and emergency responders to enable them to respond effectively to the increased pressures associated with a changing climate. | S3 | Society | S3-1 | Exploring capacity building e.g. first aid training, ties in with other community health empowerment initiatives such as issuing of defibrulators. |

4(e) What arrangements does the body have in place to review current and future climate risks?

Provide details of arrangements to review current and future climate risks, for example, what timescales are in place to review the climate change risk

The Angus Council Climate Change Strategy 2012-16 has been used as basis for an Adaptation Action Plan which is to be a component of the Angus Sustainable Energy & Climate Action Plan. Many projects covered in the original strategy are ongoing and valuable. There is potential for them to be streamlined into focused work that ties directly into the mandatory reporting template. Progress will be monitored through regular meetings of the Climate Change Member Officer Group- Adaptation Working Group.

Flood Risk Management Planning allows for the updating of National Flood Risk Assessments for changing forecasts for climate change and impact on adaptation actions.

4(f) What arrangements does the body have in place to monitor and evaluate the impact of the adaptation actions?

Please provide details of monitoring and evaluation criteria and adaptation indicators used to assess the effectiveness of actions detailed under

The Climate Change Adaptation Working Group continues to set the tone of adaptation work in Angus. Partnership work is key and there are many strong adaptation focused teams collaborating in the group. An Action Plan is in draft format and delivery will be monitored by the group. The work of the group will then be reported to the Climate Change Member Officer Group twice per year and will ultimately form the adaptation section on the Angus SECAP. A Flood Risk management Member Officer Group continues to meet and adaptation delivered through flood risk management is regularly monitored.

River South Esk Partnership Steering Group continues to meet 3 times p.a. and reviews the impacts of projects including those with an adaptation element. A consultation is currently active to form a second catchment management plan in which adaptation features heavily.

Interim and Final Reports on the dleivery of actions in the Local Flood Risk Management Plans are published 2-3 years and 5-6 years after publicaiton of the Plans, i.e. 2019 and 2022 respectively.

4(g) What are the body's top 5 priorities for the year ahead in relation to climate change adaptation?

Provide a summary of the areas and activities of focus for the year ahead.

Angus Council achieved their 5 targets for 2018/19. Going forward we hope to:

- 1. Through the Member/Officer Group for climate change Adaptation Working Group deliver and monitor the adaptation "Action Plan" that will be a key componemnt of the Sustainable Energy & Climate Action.
- 2. Use the Open/Green Space audit and Strategy to contribute to future adaptation actions in urbana and rural areas.
- 3. Deliver both the Angus Shoreline Management Plan 2 and Local Flood Risk Management Plans.
- 4. Deliver the Tayside Local Biodiversity Action Plan 2016-26 & develop a 2nd edition River South Esk Catchment Management Plan.
- 5. Engage in community resilience networks enabling the community to participate in adaptation works in their communities.

4(h) Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to adaptation.

https://www.angus.gov.uk/media/tayside-local-biodiversity-action-plan-20162026

https://www.angus.gov.uk/media/smp2-main-document

http://theriversouthesk.org/projects/

https://www.youtube.com/watch?v=2TGKyb496mw

https://www.angus.gov.uk/the_environment/flooding_and_coastal_erosion/tay_estuary_and_montrose_basin_local_flood_risk

http://www.readyscotland.org/my-community/local-plans-and-good-practice/edzell-flood-group-and-action-plan/

PART 5: PROCUREMENT

5(a) How have procurement policies contributed to compliance with climate change duties?

Provide information relating to how the procurement policies of the body have contributed to its compliance with climate changes duties.

The Council's sustainable procurement policy position remains as stated in the 2016 report: Angus Council at its meeting on 22 March 2012 approved sustainable procurement policy which applies to all Council procurement. Work has been completed to carry out a 'Prioritisation Exercise' using the tools developed by Sustainable Procurement Limited.

A report was submitted to the Procurement Sounding Board at its meeting on 8 December 2015 which proposed a series of next steps to devise an Angus Sustainable Procurement Plan and self-assessment against the 'Flexible Framework. The revised overall target for preparation of the action plan was December 2016 and self-assessment against the 'Flexible Framework' in December 2017

5(b) How has procurement activity contributed to compliance with climate change duties?

Provide information relating to how procurement activity by the body has contributed to its compliance with climate changes duties.

Since the Council's report in 2016, a Sustainable Procurement Working Group was formed and work has taken place to take forward work to develop a sustainable procurement plan for the Council. This included work with Sustainable Procurement Limited to help the Council approach this on a strategic, categorised basis using a "sustainability test" and a "prioritisation tool" in line with the Scottish Government's Procurement Journey guidance. However, due to staff resource changes and other Service priority changes, this work was not taken forward as from May / June 2016. At this point in time, no plans are in place to revive that activity

5(c) Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to procurement.

Since the Council's report in 2016, no other sustainable procurement best practice activity examples have been brought forward.

PART 6: VALIDATION AND DECLARATION

6(a) Internal validation process

Briefly describe the body's internal validation process, if any, of the data or information contained within this report.

This report has circulated to the Carbon, Adaptation & Sustainability Working Groups and also to the Climate Change Carbon Member Officer Group. It was subsequently circulated across all Council Services as part of the committee report consultation process.

6(b) Peer validation process

Briefly describe the body's peer validation process, if any, of the data or information contained within this report.

N/A. See above

6(c) External validation process

Briefly describe the body's external validation process, if any, of the data or information contained within this report.

N/A. See above

6(d) No validation process

If any information provided in this report has not been validated, identify the information in question and explain why it has not been validated.

N/A. See above

6e - Declaration

I confirm that the information in this report is accurate and provides a fair representation of the body's performance in relation to climate change.

| Name | Role in the body | Date |
|--------------------|-----------------------------|------|
| TBC - Stewart Ball | Head of Communities, Place. | |

RECOMMENDED - WIDER INFLUENCE

Q1 Historic Emissions (Local Authorities only)

Please indicate emission amounts and unit of measurement (e.g. tCO2e) and years. Please provide information on the following components using data from the links provided below. Please use (1) as the default unless targets and actions relate to (2).

(1) UK local and regional CO2 emissions: subset dataset (emissions within the scope of influence of local authorities):

(2) UK local and regional CO2 emissions: full dataset:

Select the default target dataset

Subset

'Comments')

| Table 1a - Subset Sector | 2006 | 2007 | 2000 | 2000 | 2040 | 2044 | 2042 | 2042 | 2014 | 2045 | 2046 | Unito | Comments |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|----------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Units | Comments |
| Total Emissions | 953.03 | 940.62 | 929.05 | 856.49 | 886.48 | 815.51 | 853.25 | 818.85 | 743.68 | 711.67 | 674.7 | ktCO2 | |
| Industry and | 350.35 | 347.14 | 340.6 | 307.93 | 314.19 | 293.34 | 312.5 | 292.72 | 256.23 | 237.57 | 206.2 | ktCO2 | |
| Commercial | | | | | | | | | | | | | |
| Domestic | 342.22 | 332.77 | 335.16 | 301.84 | 323.52 | 279.95 | 300.14 | 286.88 | 243.53 | 228.56 | 216.2 | ktCO2 | |
| Transport total | 260.47 | 260.7 | 253.3 | 246.72 | 248.77 | 242.22 | 240.61 | 239.24 | 243.92 | 245.54 | 252.3 | ktCO2 | |
| Per Capita | 8.47 | 8.28 | 8.11 | 7.46 | 7.68 | 7.02 | 7.34 | 7.04 | 6.37 | 6.09 | 5.8 | tCO2 | |
| Waste | | | | | | | | | | | | tCO2e | |
| LULUCF Net | | | | | | | | | | | | ktCO2 | |
| Emissions | | | | | | | | | | | | | |
| Other (specify in | | | | | | | | | | | | | |

| Table 1b - Full | | | | | 2242 | 0044 | 0040 | 2242 | 2011 | 2015 | 2012 | 11. % | | | | | |
|-------------------------------------|---------------------------------------|-----------------------|---|-----------------|---------------------------------|-------------------|------------------------|------------|---------------------|------------|---------------|--------------------------|----------------------------|---|---------------|--|---|
| Sector | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Units | Comments | | | | |
| Total Emissions | 1062.84 | 1050.33 | 1023.55 | 949.36 | 977.04 | 903.64 | 946.81 | 891.74 | 799.64 | 766.23 | | ktCO2 | | | | | |
| Industry and | 359.93 | 359.64 | 350.28 | 320.47 | 324.67 | 304.7 | 323.58 | 309.08 | 267.16 | 247.92 | | ktCO2 | | | | | |
| Commercial | | | | | | | | | | | | | | | | | |
| Domestic | 342.22 | 332.77 | 335.16 | 301.84 | 323.52 | 279.95 | 300.14 | 286.88 | 243.53 | 228.56 | | ktCO2 | | | | | |
| Transport total | 263.43 | 264.12 | 256.74 | 250.18 | 252.23 | 245.64 | 244.05 | 242.73 | 247.47 | 248.98 | | ktCO2 | | | | | |
| Per Capita | 9.45 | 9.25 | 8.94 | 8.27 | 8.47 | 7.78 | 8.15 | 7.67 | 6.85 | 6.55 | | tCO2 | | | | | |
| Waste | | | | | | | | | | | | tCO2e | | | | | |
| LULUCF Net | 97.26 | 93.79 | 81.37 | 76.88 | 76.62 | 73.36 | 79.04 | 53.05 | 41.48 | 40.77 | | ktCO2 | | | | | |
| Emissions | | | | | | | | | | | | | | | | | |
| Other (specify in | | | | | | | | | | | | | | | | | |
| 'Comments') | | | | | | | | | | | | | | | | | |
| Sector | Description | n | Type of Ta | arget (unit | s) | Baseline V | /alue S | Start Year | | Target Sav | ina | Saving in la | atest year measured | ı | Comments | Comments | Comments |
| | N/A see co | | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | -, | | | | | | 3 | g | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| • | Start year | for | Year that | | Annual CO | | Latest Yea | | Saving in | | Status | | cators for Monitoring | | Delivery Role | , , , | , , , , |
| • | Start year policy/ act | for tion | Year that action will | be fully | saving on | ce fully I | Latest Yea Measured | : | year meas | | Status | Metric/ Indi Progress | cators for Monitoring | | Delivery Role | policy design and | policy design and further details of |
| • | Start year | for tion | Year that | be fully | | ce fully I | | : | | | Status | | cators for Monitoring | | Delivery Role | policy design and implementation, | policy design and further details of implementation, this behaviour |
| | Start year policy/ act | for tion | Year that action will | be fully ted | saving on | ce fully I | | : | year meas | | Status | | cators for Monitoring | | Delivery Role | policy design and implementation, has ISM or an | policy design and further details of implementation, this behaviour has ISM or an change activity |
| • | Start year policy/ act | for tion | Year that action will | be fully ted | saving one implemen | ce fully I | | : | year meas | | Status | | cators for Monitoring | | Delivery Role | policy design and implementation, has ISM or an equivalent | policy design and further details o implementation, this behaviour has ISM or an change activity equivalent |
| • | Start year policy/ act | for tion | Year that action will | be fully ted | saving one implemen | ce fully I | | : | year meas | | Status | | cators for Monitoring | | Delivery Role | policy design and implementation, has ISM or an | policy design and further details o implementation, this behaviour has ISM or an change activity equivalent |
| | Start year policy/ act | for tion | Year that action will | be fully ted | saving one implemen | ce fully I | | : | year meas | | Status | | cators for Monitoring | | Delivery Role | policy design and implementation, has ISM or an equivalent | policy design and further details of implementation, this behaviour has ISM or an change activity equivalent behaviour change |
| Q3) Policies and A Sector | Start year policy/ act | for tion | Year that action will | be fully ted | saving one implemen | ce fully I | | : | year meas | | Status | | cators for Monitoring | | Delivery Role | policy design and implementation, has ISM or an equivalent behaviour change | policy design and further details of implementation, this behaviour has ISM or an change activity equivalent behaviour change |
| • | Start year policy/ act | for tion tation | Year that action will | be fully ted | saving one implemen | ce fully I ted | | 2 | year meas | ured | Status N/A | | cators for Monitoring N/A | | Delivery Role | policy design and implementation, has ISM or an equivalent behaviour change | policy design and further details of implementation, this behaviour has ISM or an change activity equivalent behaviour change tool been used? |
| • | Start year policy/ act implemen | for tion tation | Year that action will implemen | be fully ted | saving on implemen (tCO2) | ce fully I ted | Measured | 2 | year meas (tCO2) | ured | | | | | Delivery Role | policy design and implementation, has ISM or an equivalent behaviour change tool been used? | policy design and further details of implementation, this behaviour has ISM or an change activity equivalent behaviour change tool been used? |
| Sector | Start year policy/ act implemen | for tion tation | Year that action will implemen | be fully ted | saving on implemen (tCO2) | ce fully I ted | Measured | 2 | year meas (tCO2) | ured | | | | | Delivery Role | policy design and implementation, has ISM or an equivalent behaviour change tool been used? | policy design and further details of implementation, this behaviour has ISM or an change activity equivalent behaviour change tool been used? |
| Sector Sustainable | Start year policy/ act implemen | for tion tation | Year that action will implemen | be fully ted | saving on implemen (tCO2) | ce fully I ted | Measured | 2 | year meas (tCO2) | ured | | | | | Delivery Role | policy design and implementation, has ISM or an equivalent behaviour change tool been used? | policy design and further details of implementation, this behaviour has ISM or an change activity equivalent behaviour change tool been used? |
| Sector Sustainable Energy Action & | Start year policy/ act implemen | for tion tation | Year that action will implemen | be fully ted | saving on implemen (tCO2) | ce fully I ted | Measured | 2 | year meas (tCO2) | ured | | | | | Delivery Role | policy design and implementation, has ISM or an equivalent behaviour change tool been used? | policy design and further details of implementation, this behaviour has ISM or an change activity equivalent behaviour change tool been used? |

Q4) Partnership Working, Communication and Capacity Building.
Please detail your Climate Change Partnership, Communication or Capacity Building Initiatives below.
Key Action Type Description Action Organisation's Project Role Lead Organisation (if not Private Partners Public Partners Comments reporting organisation)

Delivery of Angus SECAP through wide

Sustainable Energy stakeholder engagement Action & Climate Plan under

development

Faciltation of partnership work and monitoring

Please use the text box below to detail further climate change related activity that is not noted elsewhere within this reporting template

ACTIVE & SUSTAINABLE TRAVEL

Angus Council has been awarded funds from Smarter Choices Smarter Places (SCSP) for delivery of an active travel programme over the financial year 2019/20. A number of projects targeted at local commuters, residents, students and pupils, as well as visitors, are being delivered throughout the year to encourage a change in travel behaviour. Examples of some of the projects for this year are listed below:

- Schools: WOW (Walk Once a Week) and Travel Tracker Programme will seek to encourage and reward active and sustainable travel to school by pupils.,
 - Encourage safer parking while also promoting a reduction in traffic speed, congestion and pollution around school gates through the Park Smarter Programme,
 - an On bus-workshop and holiday hop programme will be carried out encouraging pupils to use public transport wherever possible if unable to walk or cycle.
- Cycling: support of Angus Cycle Hub programme of community cycling programme,
 - initiatives such as fun round the loch, Young Persons Activity Day, and Friockheim Get Cycling Get Walking Initiative,
 - Community Bike Maintenance and Servicing Courses. installation of cycling signage and bike racks throughout the Council area.
- Walking: Sign posting of active travel routes in Monifieth
- Community: Community Planning Project This project will involve proactively engaging key members of the Forfar community and other stakeholders in a community engagement process designed to understand community need around accessibility and sustainable mobility in Forfar.
- Various: support of area wide car share scheme,
 - lift share license for Council employees and.
 - social media 'Get on the Go' programme to encourage active & sustainable travel.

Cycling Walking Safer Streets: - Footpath improvements at West Links, Arbroath on National Cycle Route 1 (NCR1) as well as upgrading of existing barriers and repositioning of chicanes elsewhere on the route.

- Alteration of footway on Shanwell Road, Carnoustie to shared use footway/cycleway and,
- Other schemes are currently being identified.

Extended our EV fleet, now 8 pool cars available at Angus House which are being used extensively. All journeys are being recorded for analysis purposes.

A regional EV Strategy has recently been published with a series of actions identified both locally and regionally. Angus Council are in the process of organising a steering group to deliver on the local actions. A regional forum will also be set up to deliver on regional actions which will include Angus Council representation.