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Public Sector Climate Change Duties 2017 Summary Report: Angus Council

**PART 1: PROFILE OF REPORTING BODY**

**1(a) Name of reporting body**  
 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                 | Unit       | Value  | Comments  |
|------------------------|------------|--------|---|
| Floor area             | m2         | 271074 | GIA   |
| Population size served | population | 116520 | <a href="https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2016/list-of-tables">https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2016/list-of-tables</a> |

**1(e) Overall budget of the body**  
 Specify approximate £/annum for the report year.

| Budget          | Budget Comments   |
|-----------------|---|
| £247,913,000.00 | <a href="https://www.angus.gov.uk/media/final-revenue-budget-">https://www.angus.gov.uk/media/final-revenue-budget-</a> |

**1(f) Report year**  
 Specify the report year.

| Report Year                | Report Year Comments  |
|----------------------------|---|
| Financial (April to March) | <a href="https://www.angus.gov.uk/media/final-revenue-budget-volume-2016-17">https://www.angus.gov.uk/media/final-revenue-budget-volume-2016-17</a> |

**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 management 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 newly formed 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. 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 has recently been extended from just CO2 to climate change, incorporating sustainability. The group will meet quarterly 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.

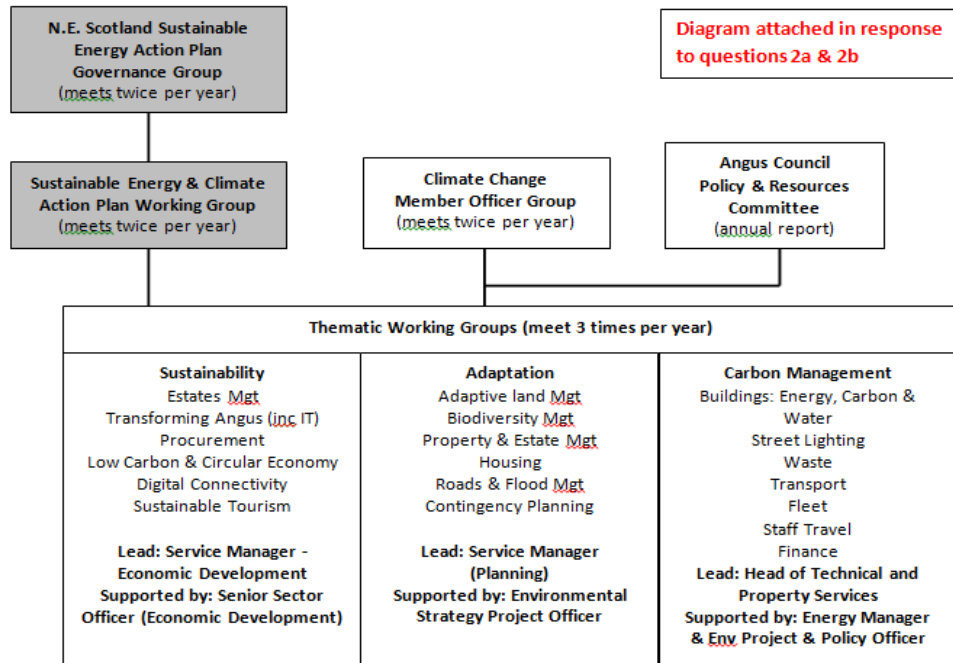
Each working group is chaired by a senior manager and comprises specialist officers and support staff for their topic area. The newly formed groups have agreed remits and are commencing work on developing delivery plans spanning the Council's functions.

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. See Figure 1

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Figure 1: Climate Change Governance Structure, Angus Council



### 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  |
|--|--|---|
| Partnership Priorities & Local Outcomes [include]:<br><br>Our communities are developed in a sustainable manner<br>Our carbon footprint is reduced | Angus Council Corporate Plan 2014-2017 | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-05/Council%20Plan%202014-17.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-05/Council%20Plan%202014-17.pdf</a> |

### 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)."

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| 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  | Name of document                                      | Link   | Time period  | Comments   |
| Adaptation  | "Climate Change Strategy and Action Plan 2012 - 2016" | <a href="http://www.angus.gov.uk/downloads/file/1393/climate_change_strategy_and_action_plan_2012_-_2016">http://www.angus.gov.uk/downloads/file/1393/climate_change_strategy_and_action_plan_2012_-_2016</a>  | 2012-2016    | To be replaced by SECAP which is currently under development   |
| Business 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.  |
| 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                         | <a href="http://archive.angus.gov.uk/ccmeetings/reports-committee2013/CorporateServices/353.pdf">http://archive.angus.gov.uk/ccmeetings/reports-committee2013/CorporateServices/353.pdf</a>  | "2014-2020   |  |
| Fleet transport   | Vehicle Replacement Programme 2016/17                 | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-07/82_0.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-07/82_0.pdf</a>  | 2016/17      |  |
| Information and communication technology  | IT plans incorporated in to Transforming Angus plan   | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-07/113_0.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-07/113_0.pdf</a><br><a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-07/46_0.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-07/46_0.pdf</a>                                 |              | Transforming Angus initiative incorporates projects that will reduce the Council's carbon footprint through implementing agile working and rationalising use of estate.  |
| Renewable energy  | Carbon Reduction Action Plan                          | <a href="http://archive.angus.gov.uk/ccmeetings/reports-committee2013/CorporateServices/353.pdf">http://archive.angus.gov.uk/ccmeetings/reports-committee2013/CorporateServices/353.pdf</a>  | 2014-2020    |  |
| Sustainable/renewable heat  | Carbon Reduction Action Plan                          | As above   |              |  |
| Waste management  | Waste Strategy under production                       | <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/waste-data-for-scotland/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/waste-data-for-scotland/</a>  |              | Angus Council currently had the 3rd highest household recycling rate in Scotland in 2016/17 and has completed a shared services review with other Dundee and Perth & Kinross Councils, and currently undertaking procurement with Dundee City Council for long term contract for thermal treatment of residual waste, but no overarching strategy document presently |
| Water and sewerage  | Water Management - A Corporate Commitment             | <a href="http://archive.angus.gov.uk/ccmeetings/reports-committee2005/rcservices/350.pdf">http://archive.angus.gov.uk/ccmeetings/reports-committee2005/rcservices/350.pdf</a><br><a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-07/46_0.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-07/46_0.pdf</a> | 2005 onwards |  |
| Land Use  | River South Esk Catchment Partnership Management Plan | <a href="http://theriversouthesk.org/assets/Documents/river-south-esk-plan-dec09.pdf">http://theriversouthesk.org/assets/Documents/river-south-esk-plan-dec09.pdf</a>  | 2009 onwards |  |

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|  |  |  |              |   |
|--|--|--|--------------|---|
| Other (state topic area covered in comments) |  |  |              |   |
| Energy efficiency                            | Corporate Carbon Management Action Plan*                 | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a><br><a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch1.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch1.pdf</a> | 2013 - 2020  |   |
| Renewable energy                             | Tay Cities Deal - Regional Economic Development Strategy | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-07/47_0.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-07/47_0.pdf</a><br><a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-07/47_Appendix.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-07/47_Appendix.pdf</a>   | 2017 onwards | Also potential area wide & cross boundary projects outlined in proposed Tay Cities Deal |
| Sustainable/renewable heat                   | Procurement of Biomass Boiler Installations              | <a href="http://archive.angus.gov.uk/ccmeetings/reports-committee2013/CorporateServices/260.pdf">http://archive.angus.gov.uk/ccmeetings/reports-committee2013/CorporateServices/260.pdf</a>  | 2013 onwards |   |
| Sustainable/renewable heat                   | Tay Cities Deal - Regional Economic Development Strategy | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-07/47_Appendix.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-07/47_Appendix.pdf</a>  | 2017 onwards |   |
| Land Use                                     | Angus Local Development Plan 2016 - 2021                 | <a href="https://www.angus.gov.uk/directories/document_category/development_plan">https://www.angus.gov.uk/directories/document_category/development_plan</a>  | 2016-2021    |   |
| Land Use                                     | Strategic Development Plan (Tayplan) 2012 - 2032         | <a href="http://www.tayplan-sdpa.gov.uk/strategic_development_plan">http://www.tayplan-sdpa.gov.uk/strategic_development_plan</a>  | 2012-2032    |   |
| Land Use                                     | Angus Shoreline Management Plan 2                        | <a href="https://www.angus.gov.uk/media/smp2-main-document">https://www.angus.gov.uk/media/smp2-main-document</a>  | 2017 onwards |   |
| Other (state topic area covered in comments) | Angus Economic Strategy                                  | <a href="http://www.angus.gov.uk/sites/angus-cms/files/Angus_Economic_Development_Strategy_2013_2020.pdf">http://www.angus.gov.uk/sites/angus-cms/files/Angus_Economic_Development_Strategy_2013_2020.pdf</a>  | 2013-2020    | Economic development with links to circular and low carbon economy                      |
|  | Tayside Local Biodiversity Action Plan                   | <a href="http://www.taysidebiodiversity.co.uk/wp-content/uploads/2016/08/Tayside-LBAP-report-Introduction.pdf">http://www.taysidebiodiversity.co.uk/wp-content/uploads/2016/08/Tayside-LBAP-report-Introduction.pdf</a>  | 2016-26      |   |

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### 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.
- Strengthen governance, management and strategy utilising outputs of Climate Change Assessment Tool. Develop mechanism & processes of the new Climate Change Member Officer Group & new 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 new Active Travel Plan & support Transforming Angus 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.

A CCAT workshop was carried out in Sept 2016 by a small group of officers. Self assessment scores were as follows: nance (43%)

- Strengths - external reporting and validation relating to CO2 – climate change in general and energy. Internal governance and reporting on energy related carbon is strong. Commitment already made to production of Strategic Energy Action Plan (SEAP).
  - Recommend – strengthen by extending remit of current MOG to include adaptation and sustainability with terms of reference to reflect reporting structure. Fill any gaps in policy threads by ensuring that climate change is specifically mentioned in Corporate Plan and SOA replacement framework. Embed consideration of sustainability and climate change in all Council operations through committee report template.
2. Emissions (77%)
- Strengths – buildings related energy management has strong performance in terms of target setting, project delivery, data management internal reporting and external validation. Street lighting shows steady carbon reduction. Commitment to estate rationalisation and agile working offer significant potential.
  - Recommend – extend scope of Carbon Management Plan currently from largely buildings to include waste, staff travel, street lighting and fleet. Projects, data and reporting should match standard set by Energy Management Unit.
3. Adaptation (43%)
- Strengths - many examples of effective resilience work by individual departments e.g. flood management, biodiversity, community emergency planning.
  - Recommend - strategic approach essential. Adaptation must be embedded in the corporate risk management process with annual reviews of climate readiness at corporate and Service level. Essential that this is built into the SEAP process.
4. Behaviour (50%)
- Strengths - some staff have climate change written into their job descriptions with other specialist staff supporting. Various departments are already engaged in climate change related areas although with an alternative primary focus e.g. estates management.
  - Recommend - Services should commit to and report on climate change related actions through Service Plan reports, aligning with commitments in Council Plan. Produce and implement a Climate Change Communications Strategy to highlight existing and developing good practice. Reinstate 'EARS' staff engagement programme.
5. Procurement (19%)
- Strengths – procurement staff fully understand and support principles of sustainable procurement. There is some evidence of departmental best practice and corporate commitment
  - Recommend – Services have devolved procurement responsibilities and have to meet new sustainable procurement legislation. Review of processes and reporting required.

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### 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/2017-07/323_0.pdf) & [http://www.angus.gov.uk/sites/angus-cms/files/2017-07/46\\_0.pdf](http://www.angus.gov.uk/sites/angus-cms/files/2017-07/46_0.pdf)



**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 | tCO <sub>2</sub> e | 2010/11 is the baseline year for the Carbon Management Plan. Full data is available for scopes 1 & 2 and has been verified through Carbon Trust Standard. Reliable historical data relating to scope 3 not available. |
| Year 1 carbon footprint   | 2011/12 | 10490  | 13452   | 7485   | 31427 | tCO <sub>2</sub> e | Full data is available for scopes 1 & 2 and has been verified through Carbon Trust Standard. Scope extended to include waste & water.   |
| Year 2 carbon footprint   | 2012/13 | 11751  | 13727   | 11105  | 36583 | tCO <sub>2</sub> e | Full data is available for scopes 1 & 2 and has been verified through Carbon Trust Standard. Scope extended to include waste & water.   |
| Year 3 carbon footprint   | 2013/14 | 10766  | 13295   | 8870   | 32931 | tCO <sub>2</sub> e | Full data is available for scopes 1 & 2 and has been verified through Carbon Trust Standard. Scope extended to include waste & water.   |
| Year 4 carbon footprint   | 2014/15 | 10385  | 13674   | 7229   | 31288 | tCO <sub>2</sub> e | Full data is available for scopes 1 & 2 and has been verified through Carbon Trust Standard. Scope extended to include waste & water.   |
| Year 5 carbon footprint   | 2015/16 | 9870   | 12477   | 9102   | 31449 | tCO <sub>2</sub> e | Full data is available for scopes 1 & 2 and will be verified through Carbon Trust Standard re-accreditation 2017. Scope extended to include waste & water.  |
| Year 6 carbon footprint   | 2016/17 | 9078   | 10533.7 | 10242  | 29854 | tCO <sub>2</sub> e | Full data is available for scopes 1 & 2 and will be verified through Carbon Trust Standard re-accreditation 2017. Scope extended to include waste & water.  |

**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 difference between Q3a & 3b. | Emission source                                       | Scope   | Consumption data | Units | Emission factor | Units         | Emissions (tCO2e) | Comments  |
|---------|--|---|---------|------------------|-------|-----------------|---------------|-------------------|---|
| 29850.8 |  | Grid Electricity (generation)                         | Scope 2 | 25564062 kWh     |       | 0.41205         | kg CO2e/kWh   | 10533.7           | Energy Annual Report 2016/17 (Committee Report 257/17 - Schedule 2): <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a>  |
|         |  | Grid Electricity (transmission & distribution losses) | Scope 3 | 25564062 kWh     |       | 0.03727         | kg CO2e/kWh   | 952.8             | Energy Annual Report 2016/17 (Committee Report 257/17 - Schedule 2): <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a>  |
|         |  | Natural Gas   | Scope 1 | 33566129 kWh     |       | 0.183996818     | kg CO2e/kWh   | 6176.1            | Energy Annual Report 2016/17 (Committee Report 257/17 - Schedule 2): <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a>  |
|         |  | Gas Oil   | Scope 1 | 287345 kWh       |       | 0.276309824     | kg CO2e/kWh   | 79.4              | Energy Annual Report 2016/17 (Committee Report 257/17 - Schedule 2): <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a>  |
|         |  | Fuel Oil  | Scope 1 | 33267 kWh        |       | 0.26782497      | kg CO2e/kWh   | 8.9               | Energy Annual Report 2016/17 (Committee Report 257/17 - Schedule 2): <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a>  |
|         |  | Burning Oil (Kerosene)                                | Scope 1 | 1036155 kWh      |       | 0.246663253     | kg CO2e/kWh   | 255.6             | Energy Annual Report 2016/17 (Committee Report 257/17 - Schedule 2): <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a>  |
|         |  | Diesel (average biofuel blend)                        | Scope 3 | 979321 litres    |       | 2.6116252       | kg CO2e/litre | 2557.6            |   |
|         |  | Water - Supply  | Scope 3 | 188743 m3        |       | 0.344           | kg CO2e/m3    | 64.9              | Water Annual Report 2016/17 (Committee Report 257/17 - Schedule 3): <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch3.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch3.pdf</a>   |
|         |  | Water - Treatment                                     | Scope 3 | 179305 m3        |       | 0.708           | kg CO2e/m3    | 127.0             | Water Annual Report 2016/17 (Committee Report 257/17 - Schedule 3): <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch3.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch3.pdf</a><br>Assumed @ 95% of supply  |
|         |  | Batteries Recycling                                   | Scope 3 | 5 tonnes         |       | 65              | kg CO2e/tonne | 0.3               | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|         |  | Refuse Municipal to Landfill                          | Scope 3 | 15259 tonnes     |       | 421             | kg CO2e/tonne | 6424.0            | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|         |  | Refuse Commercial & Industrial to Landfill            | Scope 3 | 6108 tonnes      |       | 199             | kg CO2e/tonne | 1215.5            | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|         |  | Organic Food & Drink AD                               | Scope 3 | 4116 tonnes      |       | 21              | kg CO2e/tonne | 86.4              | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|         |  | Organic Garden Waste Composting                       | Scope 3 | 11365 tonnes     |       | 6               | kg CO2e/tonne | 68.2              | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|         |  | Paper & Board (Mixed) Recycling                       | Scope 3 | 1219 tonnes      |       | 21              | kg CO2e/tonne | 25.6              | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |

|  |  |         |               |         |               |       |   |
|--|--|---------|---------------|---------|---------------|-------|---|
|  | WEEE (Mixed) Recycling                                 | Scope 3 | 1258 tonnes   | 21      | kg CO2e/tonne | 26.4  | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|  | Glass Recycling  | Scope 3 | 550 tonnes    | 21      | kg CO2e/tonne | 11.6  | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|  | Plastics (Average) Recycling                           | Scope 3 | 13 tonnes     | 21      | kg CO2e/tonne | 0.3   | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|  | Metal Cans (Mixed) & Metal Scrap Recycling             | Scope 3 | 984 tonnes    | 21      | kg CO2e/tonne | 20.7  | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|  | Refuse Municipal /Commercial /Industrial to Combustion | Scope 3 | 9475 tonnes   | 21      | kg CO2e/tonne | 199.0 | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|  | Mixed recycling  | Scope 3 | 10355 tonnes  | 21      | kg CO2e/tonne | 217.5 | Detail provided by Angus Council. Overall totals verified in Waste Data Flow 2016 <a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a> |
|  | Average Car - Unknown Fuel                             | Scope 3 | 1871608 miles | 0.30088 | kg CO2e/mile  | 563.1 | Staff travel in own cars/ grey fleet.   |
|  | Car - diesel (average - unknown engine size)           | Scope 3 | 802118 miles  | 0.29461 | kg CO2e/mile  | 236.3 | Staff travel in own cars/ grey fleet.   |

**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.

| Technology             | Renewable Electricity                    |                      | Renewable Heat                           |                      | Comments   |
|------------------------|--|----------------------|--|----------------------|--|
|                        | Total consumed by the organisation (kWh) | Total exported (kWh) | Total consumed by the organisation (kWh) | Total exported (kWh) |  |
| Solar PV               | 98258                                    | 33030                |  |                      | Total kWh generated 131288 kWh. Information taken from recorded reads at individual sites for PV. Assumed as 50% consumption on site and 50% exported as per FIT agreements except where no agreement in place or where export meters have been installed. |
| Solar thermal          |  |                      |  | 3026                 | 0 Information taken from recorded reads at solar thermal site - Isla Primary School. Other sites; Montrose Sports Centre and Kinloch Care Centre have had SHW systems drained down.  |
| Biomass                |  |                      |  | 2795116              | 0 Renewable heat taken from Systemslink Billing information for 7 sites with a total heat output of 1759 kW.   |
| Water Source Heat Pump | 10038                                    | 3427                 |  |                      | Gas CHP@ Arbroath Sports Centre (certified system): Data for gas consumed, total electric generated and exported. Issues with system failure during 2016/17.   |

**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 target | Year used as baseline | Baseline figure | Units of baseline | Target completion year | Comments  |
|---|----------------|--------|-----------------|--------------------------|-------------------------|-----------------------|-----------------|-------------------|------------------------|---|
| Corporate energy consumption reduction target | percentage     | 22.64  | kWh reduction   | All energy use           | 82                      | 2010/11               | 77801796        | kWh               | 2019/20                | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a> . Annual reduction consumption target is 2%; 2016/17 achieved an 4.8% reduction on previous year.   |
| Corporate Carbon Dioxide reduction target     | percentage     | 26.32  | tCO2e reduction | All energy use           | 107                     | 2010/11               | 25132.49        | tCO2e             | 2019/20                | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch2.pdf</a> . Annual reduction carbon dioxide target is 3%; 2016/17 achieved an 11.5% reduction on previous year. We have reached our 2020 target in 2016/17. |
| Corporate Water consumption reduction target  | percentage     | 33.6   | M3 reduction    | Water and sewerage       | 80                      | 2011/12               | 257500          | M3                | 2019/20                | <a href="http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch3.pdf">http://www.angus.gov.uk/sites/angus-cms/files/2017-08/257_Sch3.pdf</a>   |

**3e Estimated total annual carbon savings from all projects implemented by the body in the report year**

| Total | Emissions Source            | Total estimated annual carbon savings (tCO2e) | Comments  |
|-------|-----------------------------|---|---|
| 898.7 | Electricity                 | 834.1   | Information provided from Master Project Spread sheet that sits in-house with Energy Management Unit and information provided by Roads Dept on savings from street lighting lighting conversions. |
|       | Natural gas                 | 64.6  | Information provided from Master Project Spread sheet that sits in-house with Energy Management Unit  |
|       | Other heating fuels         | 0   | No projects for Oil/LPG or Biomass  |
|       | Waste                       |   |   |
|       | Water and sewerage          | 0   | Water projects - small scale on site by site basis as identified by staff and Battery replacement of Urinal controls. Verified through Carbon Trust Standard for Water re-accreditation 2017.     |
|       | 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**

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

| Project name                           | Funding source            | First full year of CO2e savings | Are these savings figures estimated or actual? | Capital cost (£) | Operational cost (£/annum) | Project lifetime (years) | Primary fuel/emission source saved | Estimated carbon savings per year (tCO2e/annum) | Estimated costs savings (£/annum) | Behaviour Change | Comments   |
|--|---------------------------|---------------------------------|--|------------------|----------------------------|--------------------------|------------------------------------|---|-----------------------------------|------------------|--|
| Street lighting                        | Street Lighting budget    | 2016/17                         | Estimated                                      |                  |                            |                          | Grid Electricity                   | 787   |                                   |                  | A reduction of 1,097,771 kWh compared with period 2015/16. The reduction has been achieved by carrying out conversions on our existing lighting stock. This has included the conversion to electronic control gear, LED Conversions, 62% of our street lights are now converted to LED and also trimming the burning hours of each lamp. |
| Carnoustie High School                 | CRF                       | 2017/18                         | Estimated                                      | 15049            |                            | 20                       | Natural Gas                        | 26.2  | 2508                              |                  | Upgrade and rationalisation of boilers in retained facility.   |
| Angus House, Forfar                    | CRF                       | 2017/18                         | Estimated                                      | 40000            |                            | 20                       | Grid Electricity                   | 17.2  | 5714                              |                  | LED lighting to whole building.  |
| Various sites with Air Handling Unit's | Central Energy Management | 2017/18                         | Estimated                                      | 1388             |                            | 20                       | Natural Gas                        | 16.3  | 1388                              |                  | TREND Software to assist in operation of AHU's via Building Management System.   |
| Arbroath Sports Centre                 | Central Energy Management | 2017/18                         | Estimated                                      | 9142             |                            | 20                       | Natural Gas                        | 12  | 1306                              |                  | Boiler rationalisation, installation accumulator tanks and heat exchanger.   |
| Inverbrothock Primary School           | Central Energy Management | 2017/18                         | Estimated                                      | 12984            |                            | 20                       | Natural Gas                        | 10.1  | 752                               |                  | Creation of separate heating zone through Building Management System for Out of School Club.   |
| Southmuir Primary School               | Central Energy Management | 2017/18                         | Estimated                                      | 16493            |                            | 20                       | Grid Electricity                   | 8.7   | 1777                              |                  | LED and controls to various areas of school.   |
| Arbroath Sports Centre                 | CRF                       | 2017/18                         | Estimated                                      | 16779            |                            | 20                       | Grid Electricity                   | 8.1   | 2397                              |                  | LED lighting and controls throughout building.   |
| Websters - whole Campus                | CRF                       | 2017/18                         | Estimated                                      | 9777             |                            | 20                       | Grid Electricity                   | 7   | 1955                              |                  | Upgrade external lighting to LED with controls.  |
| Andover Primary School                 | Central Energy Management | 2017/18                         | Estimated                                      | 12156            |                            | 20                       | Grid Electricity                   | 6.1   | 1736                              |                  | Upgrade Nursery lighting and Replace Corridor Lights to LED and fit key switches. Replace External Lighting to LED   |

**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 | Emissions source            | Total estimated annual emissions (tCO2e) | Increase or decrease in emissions | Comments   |
|-------|-----------------------------|--|-----------------------------------|--|
| 0     | Estate changes              |  |                                   | Majority of changes will already have been accounted for in previous sections. |
|       | Service provision           |  |                                   | Majority of changes will already have been accounted for in previous sections. |
|       | Staff numbers               |  |                                   | Majority of changes will already have been accounted for in previous sections. |
|       | Other (specify in comments) |  |                                   |  |

**3h Anticipated annual carbon savings from all projects implemented by the body in the year ahead**

| Total | Source                      | Saving | Comments   |
|-------|-----------------------------|--------|--|
| 0     | Electricity                 |        | Unknown<br>Projects identified but no costs or carbon savings available at present |
|       | Natural gas                 |        | Unknown<br>Projects identified but no costs or carbon savings available at present |
|       | Other heating fuels         |        | Unknown<br>No projects identified at present                                       |
|       | Waste                       |        | Unknown<br>No projects identified at present                                       |
|       | Water and sewerage          |        | Unknown<br>No projects identified at present                                       |
|       | Business Travel             |        | Unknown<br>No projects identified at present                                       |
|       | Fleet transport             |        | Unknown<br>No projects identified at present                                       |
|       | Other (specify in comments) |        | Unknown<br>No projects identified at present                                       |

**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 annual emissions (tCO2e) | Increase or decrease in emissions | Comments   |
|-------|-----------------------------|--|-----------------------------------|--|
| 0     | Estate changes              |  |                                   | Majority of changes will already have been accounted for in previous sections. |
|       | Service provision           |  |                                   | Majority of changes will already have been accounted for in previous sections. |
|       | Staff numbers               |  |                                   | 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  |
|-------|---|
|       | The carbon footprint demonstrates steady and substantial emissions reductions. Data capture and reporting systems are of good quality and continue to improve. To date, details of how this has been achieved have been limited, however, the new Carbon Working Group established in 2016/17, aims to collate this information into a Carbon Project Plan spanning all Council operations. |

### 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.

• Angus Council has held the Carbon Trust Standard for Energy continuously since 2009 and are currently going through the re-accreditation process.

• Angus Council has adopted targets to reduce carbon emissions, energy and water use by 2020. All of these targets apply to each client department, covering all operational areas of the Council estate. Responsibility lies with the Energy Management Unit to ensure that all client departments work towards attaining these targets with relevant Senior Managers from each client department, and their allocated client accountants, receiving a monthly report on progress on all fuels. These reports relate to budgetary targets, consumption and carbon; in addition they also receive information on water budgetary targets and consumption."

• There have been a greater number of carbon reduction projects completed by Angus Council. In addition, the installation of larger scale PV schemes has meant the offset of a considerable amount of electricity with its higher carbon emissions factor.

• Degree day data for North East can also be used to explain a lower consumption in gas due to 2016/17 being 6.3% warmer than 2015/16 and 4.3% warmer compared to 20 year average.

• Angus Council became the first UK local authority to achieve the Carbon Trust Standard for Water. The award recognises their commitment and achievements in the sound management and reduction of water use. Once again Angus Council are going through the re-accreditation process.

• The increase in water consumption of 13,368m<sup>3</sup> can be accounted for due to a major water leak at one specific site, the addition of new properties to the portfolio and various sites in need of investigation.

\* Street lighting - data relating to this is incorporated within the corporate electricity data, however, it is worth noting the following: in 2011 an informal 10 year programme was agreed by the Street Lighting Team to help Angus Council meet its carbon emission reduction target of 25% by 2020 and also reduce its energy usage over the same period. Since 2010/11, energy use through street lighting has decreased by 39%. Between 2015/16 & 2016/17, energy use decreased by 1,097,771 kWh, the equivalent of 787 tonnes of CO<sub>2</sub>. The reduction has been achieved by carrying out conversions on our existing lighting stock. This has included the conversion to electronic control gear, LED Conversions, 62% of our street lights are now converted to LED and also trimming the burning hours of each lamp.

\* Waste management - SEPA Waste Data Flow for 2016/17 ranks Angus Council's domestic recycling rate as being 56.7%, a decrease of 2.5% since 2015/16 but notably ranked as the 3rd highest of all Scottish local authorities.

**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](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](http://www.firescotland.gov.uk/media/864538/north_crr_version_1.2.pdf)

**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 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.

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

- Angus Council continue to implement actions in Local Flood Risk Management Strategy.
- Angus Council as lead local authority for the Tay Estuary and Montrose Basin Local Plan District developed the TEAM B Flood Risk Management Plan during the period 2015/16. Subsequently approved June 2016.  
[http://apps.sepa.org.uk/FRMStrategies/pdf/lpd/LPD\\_07\\_FRMIS.pdf](http://apps.sepa.org.uk/FRMStrategies/pdf/lpd/LPD_07_FRMIS.pdf)
- 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 defibrillators.
- 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."



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### 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 risk and implement action.

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 2016/17, 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 and plans are in place to expand the voluntary element.

<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](https://www.angus.gov.uk/the_environment/flooding_and_coastal_erosion/brechin_flood_prevention_scheme)

Arbroath (Brothock Water) Flood Protection Scheme - preparation work was carried out during the period 2015/16 and progress continues. The Arbroath scheme is currently ranked nationally as a priority project. It has been identified as an action under the Flood Risk Management Strategy and is expected to be delivered by 2022.

[https://www.angus.gov.uk/the\\_environment/flooding\\_and\\_coastal\\_erosion/arbroath\\_brothock\\_water\\_flood\\_prevention\\_scheme](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 2016/17. Particularly notable is in the Pow Burn 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.

<https://www.youtube.com/watch?v=2TGKyb496mw> Glen Clova Contour Planting Project

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 has been found and plans are being developed for future planting.

<http://theriversouthesk.org/projects/contour-planting/>

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**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 | Delivery progress made   | Comments  |
|---|---------------------|---------------------------------------|-------------------|--|---|
| 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. "   | <a href="https://www.angus.gov.uk/media/tayside-local-biodiversity-action-plan-20162026">https://www.angus.gov.uk/media/tayside-local-biodiversity-action-plan-20162026</a>   |
| 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  | " <a href="https://www.angus.gov.uk/media/tayside-local-biodiversity-action-plan-20162026">https://www.angus.gov.uk/media/tayside-local-biodiversity-action-plan-20162026</a><br><br><a href="https://www.angus.gov.uk/media/smp2-main-document">https://www.angus.gov.uk/media/smp2-main-document</a><br><br><a href="http://theriversouthesk.org/projects/">http://theriversouthesk.org/projects/</a> " |
| Sustain and enhance the benefits, goods and services that the natural environment provides.   | N3                  | Natural Environment                   | N3-1              | The Angus Local Development Plan 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. | " <a href="https://www.angus.gov.uk/media/tayside-local-biodiversity-action-plan-20162026">https://www.angus.gov.uk/media/tayside-local-biodiversity-action-plan-20162026</a><br><br><a href="https://www.angus.gov.uk/media/smp2-main-document">https://www.angus.gov.uk/media/smp2-main-document</a><br><br><a href="http://theriversouthesk.org/projects/">http://theriversouthesk.org/projects/</a> " |
| 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, newly developed Local Development Plan 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, newly developed Local Development Plan 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              | "Embedded in newly developed Local Development Plan and Open Space Strategy."  |   |
| 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.  |   |
| 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.   |   |

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### 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 assessments referred to in Question 4(a) and adaptation strategies, action plans, procedures and policies in Question 4(b).

The Angus Council Climate Change Strategy 2012-16 will be used as basis for an adaptation 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 newly established Climate Change Adaptation Working Group.

### 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 Question 4(c) and Question 4(d).

"The newly formed Climate Change Adaptation Working Group will set the future 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 will be formed and progress will be monitored by the group. The work of the group will then be reported to the CC Member Officer Group twice per year and will ultimately form the adaptation section on the Angus SECAP. A Flood Risk Management Member Officer Group has been established and adaptation delivered through flood risk management will be 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."

### 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 2016/17. Going forward we hope to:

1. Through the Member/Officer Group for climate change – Adaptation Working Group produce and adapt "Action Plan". This will help deliver ambitions of a potential Sustainable Energy & Climate and support ongoing innovation and best practice in Angus.
2. Use the Open/Green Space audit and Strategy to contribute to future adaptation actions.
3. Deliver both the Angus Shoreline Management Plan 2 and Tay Flood Risk Strategy.
4. Deliver the Tayside Local Biodiversity Action Plan 2016-26 & develop a 2nd edition River S. Esk Catchment Management Plan.
5. Build further 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](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.

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### **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.

| <b>Name</b>  | <b>Role in the body</b>                            | <b>Date</b> |
|--------------|--|-------------|
| Stewart Ball | Head of Housing, Regulatory and Protective , Place | 20/11/2017  |

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**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

**Table 1a - Subset**

| Sector                        | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012  | 2013   | 2014   | 2015   | Units | Comments |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|-------|----------|
| Total Emissions               | 942.01 | 953.03 | 940.62 | 929.05 | 856.49 | 886.48 | 815.51 | 853.3 | 818.85 | 743.68 | 711.67 | ktCO2 |          |
| Industry and Commercial       | 357.34 | 350.35 | 347.14 | 340.6  | 307.93 | 314.19 | 293.34 | 312.5 | 292.72 | 256.23 | 237.57 | ktCO2 |          |
| Domestic                      | 336.93 | 342.22 | 332.77 | 335.16 | 301.84 | 323.52 | 279.95 | 300.1 | 286.88 | 243.53 | 228.56 | ktCO2 |          |
| Transport total               | 247.75 | 260.47 | 260.7  | 253.3  | 246.72 | 248.77 | 242.22 | 240.6 | 239.24 | 243.92 | 245.54 | ktCO2 |          |
| Per Capita                    | 8.46   | 8.47   | 8.28   | 8.11   | 7.46   | 7.68   | 7.02   | 7.34  | 7.04   | 6.37   | 6.09   | tCO2  |          |
| Waste                         |        |        |        |        |        |        |        |       |        |        |        | tCO2e |          |
| LULUCF Net Emissions          |        |        |        |        |        |        |        |       |        |        |        | ktCO2 |          |
| Other (specify in 'Comments') |        |        |        |        |        |        |        |       |        |        |        |       |          |

**Table 1b - Full**

| Sector                        | 2005    | 2006    | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | Units | Comments |
|-------------------------------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|----------|
| Total Emissions               | 1061.05 | 1062.84 | 1050.3 | 1023.6 | 949.36 | 977.04 | 903.64 | 946.81 | 891.74 | 799.64 | 766.23 | ktCO2 |          |
| Industry and Commercial       | 365.85  | 359.93  | 359.64 | 350.28 | 320.47 | 324.67 | 304.7  | 323.58 | 309.08 | 267.16 | 247.92 | ktCO2 |          |
| Domestic                      | 336.93  | 342.22  | 332.77 | 335.16 | 301.84 | 323.52 | 279.95 | 300.14 | 286.88 | 243.53 | 228.56 | ktCO2 |          |
| Transport total               | 250.76  | 263.43  | 264.12 | 256.74 | 250.18 | 252.23 | 245.64 | 244.05 | 242.73 | 247.47 | 248.98 | ktCO2 |          |
| Per Capita                    | 9.53    | 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 Emissions          | 107.52  | 97.26   | 93.79  | 81.37  | 76.88  | 76.62  | 73.36  | 79.04  | 53.05  | 41.48  | 40.77  | ktCO2 |          |
| Other (specify in 'Comments') |         |         |        |        |        |        |        |        |        |        |        |       |          |

| Sector | Description | Type of Target (units) | Baseline value | Start year | Target | Target / | Saving in | Lates | Comments |
|--------|-------------|------------------------|----------------|------------|--------|----------|-----------|-------|----------|
|        |             |                        |                |            |        |          |           |       |          |

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**Q2b) Does the Organisation have an overall mission statement, strategies, plans or policies outlining ambition to influence emissions beyond your corporate boundaries? If so, please detail this in the box below.**

Under development - Angus Council is currently working with Moray, Aberdeenshire and Aberdeen City local authorities to develop a Strategic Energy & Climate Action Plan to cover the North East of Scotland. Currently undergoing Strategic Environmental Assessment.

**Q3) Policies and Actions to Reduce Emissions**

| Sector   | Start year for policy / action implementation | Year that the policy / action will be fully implemented | Annual CO2 saving once fully implemented (tCO2) | Latest Year measured | Saving in latest year measured (tCO2) | Status | Metric / indicators for monitoring progress | Delivery Role | During project / policy design and implementation, has ISM or an equivalent behaviour change tool been used? | Please give further details of this behaviour change activity | Value of Investment (£) | Ongoing Costs (£/year) | Primary Funding Source for Implementation of Policy / Action | Comments |
|--|---|---|---|----------------------|---------------------------------------|--------|---|---------------|--|---|-------------------------|------------------------|--|----------|
| Sustainable Energy Action & Climate Plan under development |   |   |   |                      |                                       |        |   |               |  |   |                         |                        |  |          |

**Please provide any detail on data sources or limitations relating to the information provided in Table 3**

None

**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 reporting organisation) | Private Partners | Public Partners | 3rd Sector Partners | Outputs | Comments |
|-----------------|---|--------|-----------------------------|---|------------------|-----------------|---------------------|---------|----------|
|                 | Sustainable Energy Action & Climate Programme under development |        |                             |   |                  |                 |                     |         |          |

**OTHER NOTABLE REPORTABLE ACTIVITY**

**Q5) Please detail key actions relating to Food and Drink, Biodiversity, Water, Procurement and Resource Use in the table below.**

| Key Action Type | Key Action Description | Organisation's Project Role | Impacts | Comments |
|-----------------|------------------------|-----------------------------|---------|----------|
|                 |                        |                             |         |          |

**Q6) Please use the text box below to detail further climate change related activity that is not noted elsewhere within this reporting template**

See Figure 2 (overleaf): Outline of Further Climate Change Related Activity in the Wider Angus Council Area