**ITEM No …3……..**

**REPORT TO: POLICY AND RESOURCES COMMITTEE – 14 NOVEMBER 2016**

**REPORT ON: PUBLIC BODIES CLIMATE CHANGE DUTIES – ANNUAL REPORT 2015/16**

**REPORT BY: CHIEF EXECUTIVE**

**REPORT NO: 344-2016**

## 1. PURPOSE OF REPORT

1.1 To inform Committee of the work undertaken over the last year in support of the Council's duties under the Climate Change (Scotland) Act 2009.

## 2. RECOMMENDATIONS

2.1 It is recommended that Committee note the contents of the attached Public Bodies Climate Change Duties – Annual Report 2015/16.

## 3. FINANCIAL IMPLICATIONS

3.1 Any anticipated costs associated with the implementation of the Public Bodies Climate Change Duties will be contained within existing capital and revenue budgets.

## 4. BACKGROUND

4.1 In 2009 the Scottish Parliament passed the Climate Change (Scotland) Act, Part 4 of which states that a public body must, in exercising its functions, act:

- in the way best calculated to contribute to the delivery of Scotland's climate change targets;
- in the way best calculated to help deliver any Scottish adaptation programme; and
- in a way that it considers most sustainable.

4.2 In November 2014, the Scottish Government announced its intentions to use powers in the Climate Change (Scotland) Act 2009 to introduce a Public Bodies Climate Change Duties (PBCCD) reporting requirement for all 151 'major players' reflecting the expectation that the public sector will lead by example in tackling climate change.

4.3 Required reporting was therefore introduced for Scottish public bodies in 2015 with a new climate change reporting template being piloted to record and publish 2014/15 data. The Council's pilot 2014/15 report was submitted to Policy and Resources Committee in January this year (Article IV of the Minute of Meeting of Policy and Resources Committee 11 January 2016, Report no. 4-2016 refers).

4.4 Mandatory reporting then came into force on 1st November 2015 with a deadline to report on 2015/16 activity by 30th November 2016. The introduction of a new standard reporting regime aims to improve the quality of climate change information being reported and ensure that a consistent approach is adopted across the public sector in Scotland. Required reporting focusses on corporate emissions arising from organisational operations and service delivery, as well as key information on: Organisational Profile, Governance, Management and Strategy; Adaptation; Procurement; and Validation.

4.5 Dundee City Council's PBCCD Report for 2015/16 is appended as appendix 1.

## 5. POLICY IMPLICATIONS

5.1 This Report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact Assessment and Risk Management.

There are no major issues.

## 6. CONSULTATIONS

6.1 The Council's Management Team have been consulted in the preparation of this report.

## 7. BACKGROUND PAPERS

None.

David R Martin
Chief Executive …… 04/11/2016

**APPENDIX 1: PUBLIC BODIES CLIMATE CHANGE DUTIES REPORT 2015/16**

# 1 PROFILE OF REPORTING BODY

**1a) Name of reporting body**

Dundee City Council

**1b) Type of body**

Local Authority

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

6,296

**1d) Metrics used by the body**

*Specify the metrics that the body uses to assess its performance in relation to climate change and sustainability.*

| Metric | Units | Value | Comments |
|---|---|---|---|
| Population Size Served | population | 148,210.00 | NRS, 2015 Mid-Year Estimate |
| | | | |
| Other (specify in comments) | | | |

**1e) Overall budget of the body**

*Specify approximate £/annum for the report year.*

£355,308,000

**1f) Report year**

*Specify the report year*

2015/16 (financial year)

**1g) Organisational context**

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

Dundee City Council has a strong role to play in reducing emissions from its own estate and from the services it provides; influencing emission reduction across the city; managing risk and building resilience to a changing climate. Functions include:

*Land Use Planning* - Regulation of planning applications and development; forward planning policies which should support climate change mitigation and adaptation goals.

*Economic development and low carbon economy* – Support to develop business opportunities in the low carbon/clean technology market. Strategic targeting and support for key business developments in terms of locations, property developments and support for skills planning and low carbon training.

*Infrastructure / major capital projects* - Investment decisions for new buildings should be carbon/climate proofed to deliver greatest efficiency and act as demonstration projects.

*Housing Strategy* – tackling fuel poverty; development and delivery of energy efficiency investment programmes; providing home energy advice service.

*Property Management* - Energy use in Council buildings; refurbishments/upgrades and renewables options; street lighting, energy efficiency retrofit and climate change adaptations.

*Passenger Transport* - Regional transport policy and planning; shared mobility and smart city integration; active travel and behaviour change programmes for modal shift; staff business travel.

*Fleet Management* – Maintenance and management of Council fleet; investment and promotion in low carbon vehicles and infrastructure; driver training and awareness; fleet telematics and rationalisation.

*Waste* – Municipal and corporate, re-use, recycling and composting.

*Land and Open Sp*ace - Land use strategy and development of green networks; habitat management and biodiversity opportunities; trees and woodland management.

*Emergency Planning and Resilience* – planning for and responding to severe weather events.

*Flood Risk Management* - development of flood risk plans and delivery of flood alleviation schemes.

*Education Services* – implementation of staff and pupil low carbon behaviours; developing Eco-Schools activity; acting as leader within the community.

*Administration* - Green office activity; staff awareness and engagement including resource use, energy efficiency and travel.

*Procurement* - Embedding Sustainable procurement considerations into spending and investment decisions to help to reduce waste and emissions; stimulate the market for more sustainable products and set an example to Council partners and the wider community.

*Community Planning* - demonstrating leadership in partnership working to increase impact through joint initiatives and knowledge transfer.

*Communication* - Better integration of sustainability messages into communications through all media at the Council's disposal is critical for bringing about real and positive change to encourage more sustainable and climate friendly behaviour by all stakeholders.

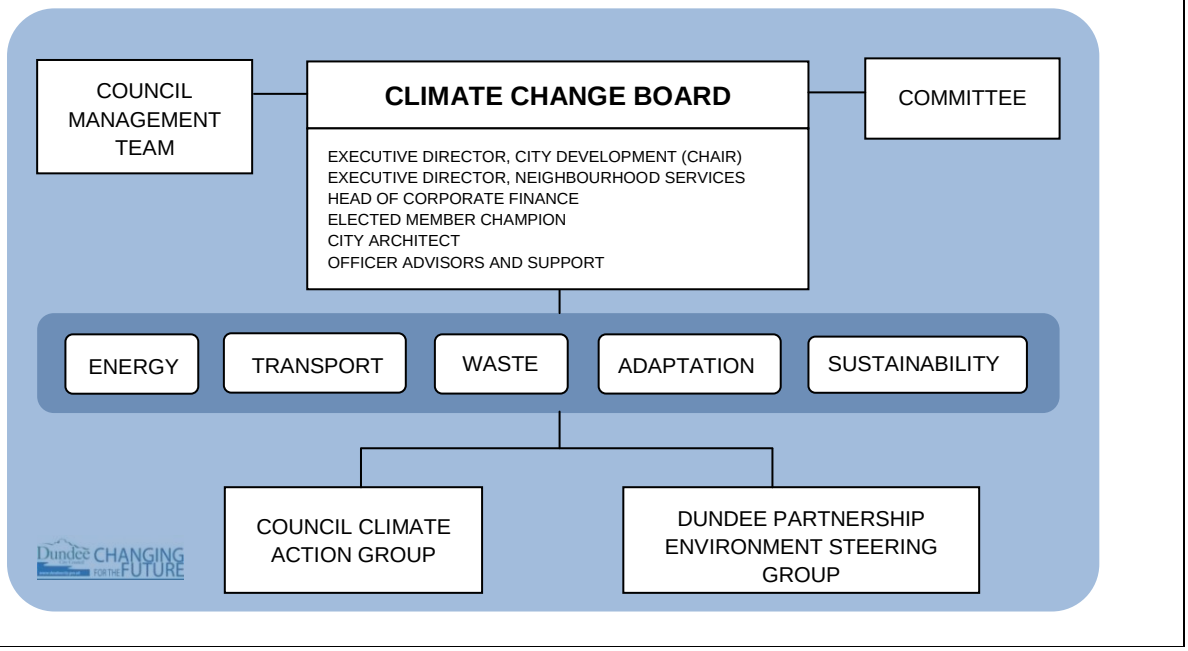
# 2 GOVERNANCE, MANAGEMENT AND STRATEGY

## Governance and management

**2a) 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.*

The Council's Climate Change Board is responsible for overseeing progress on climate change activity and in turn reports to the Council Management Team and Policy and Resources Committee. The Board is chaired by the Executive Director for City Development and comprises chief officers from relevant departments, who are responsible for leading on aspects of climate change work as well as Elected Member representation. The Board meets every two months to discuss Energy, Transport and Waste issues. Wider sustainability issues (e.g. policy, procurement, biodiversity) are considered when required and annual reports are provided on Adaptation and Air Quality. Support to the Board is provided in the form of advisors, officers involved in the day to day implementation of climate change related activities. Performance is reported via the Council's Covalent database.




**2b) 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.*

For reporting period 2015/16, the Council was structured as five Strategic Service Areas with main roles in climate change activity categorised as follows:

- Chief Executives Services (sustainable development/climate change strategy, monitoring/reporting, strategic environmental assessment, adaptation, behaviour change);
- City Development (asset management, energy management, flooding and coastal, land use planning, transport planning, street lighting, fleet);
- Corporate Services (procurement, ICT, staff travel);
- Neighbourhood Services (housing, community facilities, waste, air quality, greenspace, resilience).

Responsibility for Climate Change activity is led by City Development with input from Chief Executives Services. An internal Climate Action Group meets every 6 weeks to embed carbon management across departments and assist with the communication, facilitation and promotion of initiatives.

Current arrangements for assessing committee reports prior to submission require officers to screen their reports for any policy implications in respect of Sustainability and Strategic Environmental Assessment. A new Integrated Impact Assessment tool will be launched in 2016 that will incorporate climate change mitigation and adaptation impacts into the committee reporting process.

A Sustainable Development E-Learning module is available that enables staff to better understand the statutory and other drivers for the Council regarding sustainability; what strategic action the Council is taking to meet its sustainability duties and what actions staff can take to help make Dundee more sustainable.

*Provide a diagram to show how responsibility is allocated to the body's senior staff, dept. heads etc.*

See text above.

**Strategy**

**2c) 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.*

| Wording of objective | Name of document |
|---|---|
| 5% $CO_2$ reduction target from Council properties (per annum to 2020). | Energy Management Policy (2012-2020) – p.1<br>http://www.dundeecity.gov.uk/reports/reports/470-2012.pdf |
| Outcome 10: Our People will live in a low carbon, sustainable city. | Dundee Partnership Single Outcome Agreement (2013-2017) - p.96<br>http://www.dundeepartnership.co.uk/content/single-outcome-agreement |
| | Council Plan (2012-2017) - p.28<br>http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_3480.pdf |
| Outcome 10a: Dundee mitigates and adapts to the effects of climate change for the transition to a low carbon economy. | Dundee Partnership Single Outcome Agreement (2013-2017) - p.99<br>http://www.dundeepartnership.co.uk/content/single-outcome-agreement |
| | Council Plan (2012-2017) - p.28<br>http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_3480.pdf |
| Outcome 10b: Dundee has an accessible, integrated and sustainable travel network. | Dundee Partnership Single Outcome Agreement (2013-2017) - p.99<br>http://www.dundeepartnership.co.uk/content/single-outcome-agreement |
| | Council Plan (2012-2017) - p.28<br>http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_3480.pdf |
| Outcome 10c: Dundee has sustainable waste management systems that reduce environmental impacts of waste production. | Dundee Partnership Single Outcome Agreement (2013-2017) - p.99<br>http://www.dundeepartnership.co.uk/content/single-outcome-agreement |
| | Council Plan (2012-2017) - p.28<br>http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_3480.pdf |
| Outcome 10d: Dundee has a clean, healthy and safe environment with improved air, land and water quality. | Dundee Partnership Single Outcome Agreement (2013-2017) - p.99<br>http://www.dundeepartnership.co.uk/content/single-outcome-agreement |
| | Council Plan (2012-2017) - p.28<br>http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_3480.pdf |
| Outcome 10e: Dundee has an attractive and sustainable natural environment where the built heritage is valued and protected. | Dundee Partnership Single Outcome Agreement (2013-2017) - p.99<br>http://www.dundeepartnership.co.uk/content/single-outcome-agreement |
| | Council Plan (2012-2017) - p.28<br>http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_3480.pdf |

**2d) 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.*

No strategic 'Climate Change Plan' as such. The Council's first Carbon Management Plan was adopted in 2009 with the Energy Management Policy and target revised in 2012.

**2e) 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 | Time period covered | Comments |
|---|---|---|---|
| Adaptation | Dundee Coastal Study Stage 2 | 2013- | Identifies a framework within which local flood alleviation and coastal erosion defence schemes are developed at different locations along Dundee's 16.9km of coastal frontage.<br>http://www.dundeecity.gov.uk/reports/reports/256-2013.pdf |
| | Tay Estuary and Montrose Basin Local Flood Risk Management Plan | 2016-2022 | In partnership with other responsible authorities, the plan has been developed to detail the actions adopted to reduce the impact of flooding in the Tay Estuary and Montrose Basin (TEAMB) local plan district (LPD) as required by the Flood Risk Management (Scotland) Act.<br>http://www.angus.gov.uk/downloads/file/2396/tay%20estuary%20and%20montrose%20basin%20local%20flood%20risk%20management%20plan |
| Business travel | Staff Travel Policy | 2011- | This policy will reduce staff need to travel for work and, when they do need to travel, explicitly prioritise walking, cycling, public transport and car share over single-occupancy car. This will not only reduce carbon emissions from travel, but also contributed to cost savings and the Council's duty of care to its employees and others. The increased use of Electric Vehicle pool cars also ensures that those trips made by car are as sustainable as possible.<br>http://www.dundeecity.gov.uk/reports/reports/413-2011.pdf |
| Staff travel (commuting) | TACTRAN Regional Transport Strategy (RTS) refresh | 2015-2036 | RTS refresh sets out a vision for improving the region's transport infrastructure, services and other facilities to 2036. Formally approved by the Minister for Transport and Islands on 23 July 2015, it updates policies and proposals and now identifies 31 Strategic Actions which are aimed at supporting regional economic prosperity; connecting our communities and being socially inclusive; and promoting environmental sustainability and improved health and wellbeing. The horizon of 2036 aligns with the second TAYplan Strategic Development Plan covering much of the Tactran region.<br>http://www.tactran.gov.uk/documents/RTSRefresh-FinalReport.pdf |
| Energy efficiency | Energy Management Policy | 2012-2020 | The adoption of the Energy Policy demonstrates the City Council's commitment to the principles of responsible energy and water management in its operational buildings. The City Council will aim to improve its energy and water efficiency and reduce its energy and water consumption in line with the targets set out in this policy.<br>http://www.dundeecity.gov.uk/reports/reports/470-2012.pdf |

| | | | |
|---|---|---|---|
| | Local Housing Strategy (LHS) | 2013-2018 | The LHS is the primary strategy for the provision of housing and associated services to address homelessness, meeting housing support needs and tackling fuel poverty. Tackling climate change has been identified as one of a number of main areas for consideration within the strategy given the major role housing can play in reducing emissions.<br>http://www.dundeecity.gov.uk/sites/default/files/publications/LHS%202013%20-%2018%20Final.pdf |
| Fleet transport | Plant and Vehicle Asset Management Plan | | Internal document, unpublished. |
| ICT | Corporate Asset Management Strategy | 2011-2015 | Guides the acquisition, use and disposal of the Council's assets to make the most of their service delivery potential and manage the related risks and costs over their entire life. The six key areas of asset ownership (Buildings and Property; Roads Infrastructure; Council Housing; Open Space; Vehicle Fleet and ICT) recognise the need to minimise their impact on the environment and reduce carbon emissions. |
| Renewable energy/ Sustainable/Renewable heat - | | | Local Development Plan contains a number of policies that act as enablers to the development and generation of renewable energy and low carbon heat technologies:<br>- Policy 29:Low and Zero Carbon Technology in New Development<br>- Policy 30: Biomass Energy Generating Plant<br>- Policy 31: Wind Turbines<br>These policies are to be reviewed as part of the new LDP2 in line with Scottish planning policy.<br>http://www.dundeecity.gov.uk/localdevplan |
| Waste management | Internal Waste Management Strategy | 2014- | Adopted in 2014 to ensure the Council becomes more resource efficient, compliant with new legislation, lessen our impact on the environment and ensure that the Council leads by example. Site Waste Management Plans have also been made mandatory on all Engineering Construction and Demolition Projects. |
| Water/Sewerage | | | N/A |
| Land use | TAYplan | 2012-2032 | Recognises the long term implications of climate change and sea level rise. It supports the switch to a low carbon economy and zero waste economy by providing for appropriate infrastructure and improvements in our resilience to climate change and other potential risks. It seeks to deliver better quality development and places which respond to climate change by ensuring resilience built into the natural and built environments through a presumption against development in areas vulnerable to coastal erosion, flood risk and rising sea levels.<br>http://www.tayplan-sdpa.gov.uk |

| | | | |
|---|---|---|---|
| | Local Development Plan | 2014-2019 | In considering the delivery of the TAYplan vision there are several cross-cutting issues relating to climate change resilience that have informed the preparation of the Dundee Local Development Plan:<br><br>- Recognising that new developments will have to contribute positively to mitigating the causes of climate change and put in place adaptation measures to future proof places.<br>- Recognising the need to ensure that climate change resilience is built into the natural and built environment.<br>- Recognising the need to ensure that high resource efficiency and low/zero carbon energy generation technologies are incorporated within development to reduce carbon emissions and energy consumption to meet Scottish Government standards.<br><br>http://www.dundeecity.gov.uk/localdevplan |
| Other | Dundee Air Quality Action Plan | 2011- | Defines the scope for the Air Quality Management Area (AQMA) and sets out measures together with targets and indicators to achieve the compliance with the objectives for $PM_{10}$ and $NO_2$. It supports the integration of local air quality considerations within the Council's wider policies, strategies and plans to deliver co-benefits, particularly those relevant to sustainable development, reduction in greenhouse gases and carbon emissions.<br><br>http://www.dundeecity.gov.uk/environment/airquality |

**2d) 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.*

No strategic 'Climate Change Plan' as such. The Council's first Carbon Management Plan was adopted in 2009 with the Energy Management Policy and target revised in 2012. The Carbon Management Plan will be reviewed and updated at the end of 2016 as a result of the findings of the CCAT process and re-scoping of the Council's emissions boundary (see below).

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

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

1) Following the CCAT work, undertake an exercise to re-scope and define the organisation's carbon footprint and document the methodology.
2) Following the re-scoping exercise, review the current Carbon Management Plan and targets and update where necessary.
3) Start to collate a Project Register of measures estimated to return the greatest reduction in emissions that will assist in developing a more accurate Business As Usual forecast.
4) Review the role and responsibilities of the Climate Change Board and improve internal dialogue on low carbon issues.
5) Introduce an online Integrated Impact Assessment (IIA) tool to assist Committee report authors to consider the likely impacts of their report (including climate related issues) and provide details on any required mitigating action to overcome negative impacts.

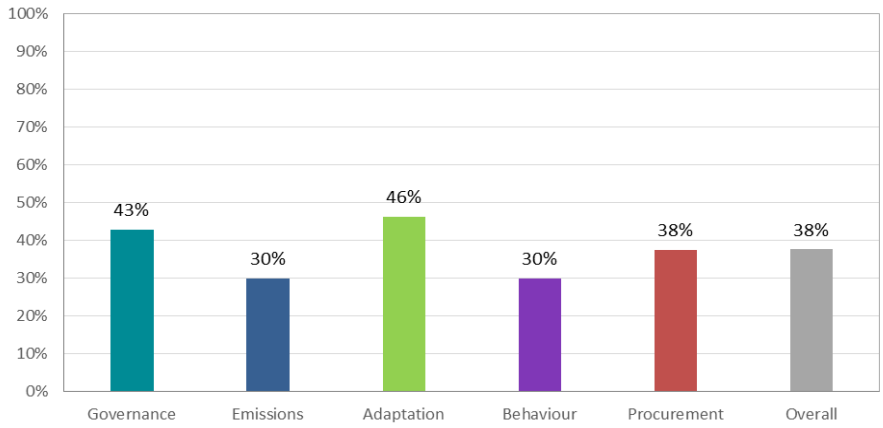
**2g) Has the body used the Climate Change Assessment Tool (a) or equivalent tool to self-assess its capability / performance?**

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

*This refers to the tool developed by Resource Efficient Scotland for the purposes of self-assessing an organisation's capability / performance in relation to climate change.*

An internal CCAT workshop was held in August 2015 with the results shown below.

| Overall results | | | | |
|---|---|---|---|---|
| | Organisation score | Total score available | Percentage score | Traffic light assessment |
| Governance | 12 | 28 | 43% | 43% |
| Emissions | 9 | 30 | 30% | 30% |
| Adaptation | 13 | 28 | 46% | 46% |
| Behaviour | 6 | 20 | 30% | 30% |
| Procurement | 6 | 16 | 38% | 38% |
| **Overall** | **46** | **122** | **38%** | **38%** |




Twelve actions were suggested by the tool and a follow-up meeting was held in November 2015 to prioritise these actions.

Action Priority 1 – is to clearly define the Council's carbon footprint in terms of organisational and operational boundary in a way that can be easily communicated.

Action Priority 2 - is to develop a more accurate Business As Usual forecast to help engage and alert the Council Management Team to risks relating to resource consumption, especially in terms of future costs. The Resource Efficient Scotland Carbon Footprint and Project Register tool will be used to develop this forecast.

Action Priority 3 and 4 - focus on reviewing the governance and operational structure for climate change; this should include a very clear remit in terms of roles, responsibilities and decision-making powers of both the Climate Change Board and the Climate Action Group and an updated timetable for meetings that considers the timing of activities that require input or sign-off.

Further actions were identified for developing Adaptation. In particular, further action could be taken by agreeing internal governance arrangements for Adaptation action and making sure that adaptation risk is being incorporated explicitly into the Council's corporate risk arrangements.

## Supporting Information

**2h) 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.*

None.

# 3 CORPORATE EMISSIONS, TARGETS AND PROJECTS

## Emissions

### 3a) Corporate emissions from start of baseline year to end of 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 organisation on emissions which are not from its estate and operations.*
*(b) This is the "The Greenhouse Gas Protocol. A corporate accounting and reporting standard (revised edition)", World Business Council for Sustainable Development, Geneva, Switzerland / World Resources Institute, Washington DC, USA (2004), ISBN:1-56973-568-9.*

| Reference Year | Year | Year Type | Scope 1 | Scope 2 | Scope 3 | Total | Units | Comments |
|---|---|---|---|---|---|---|---|---|
| Baseline carbon footprint | 2007/08 | Financial (April to March) | 20,029 | 23,664 | 12,472 | 56,165 | $tCO_2e$ | The boundary of the carbon footprint of Dundee City Council has been reassessed and extended following the CCAT workshop. The historical data for the added emission sources has been included in the previous years which means that the boundary is consistent over the time series. Where data was missing, a methodology was developed for extrapolating an estimated data point and this has been fully documented. All the consumption data has been converted using the appropriate DEFRA Conversion Factor (DCF) for the time period. |
| Year 1 carbon footprint | 2008/09 | Financial (April to March) | 20,520 | 24,815 | 12,247 | 57,582 | $tCO_2e$ | |
| Year 2 carbon footprint | 2009/10 | Financial (April to March) | 20,551 | 24,662 | 11,077 | 56,290 | $tCO_2e$ | |
| Year 3 carbon footprint | 2010/11 | Financial (April to March) | 20,208 | 27,032 | 12,284 | 59,524 | $tCO_2e$ | |
| Year 4 carbon footprint | 2011/12 | Financial (April to March) | 18,197 | 23,857 | 8,939 | 50,993 | $tCO_2e$ | |
| Year 5 carbon footprint | 2012/13 | Financial (April to March) | 21,215 | 24,159 | 20,320 | 65,693 | $tCO_2e$ | |
| Year 6 carbon footprint | 2013/14 | Financial (April to March) | 17,991 | 21,579 | 10,815 | 50,385 | $tCO_2e$ | |
| Year 7 carbon footprint | 2014/15 | Financial (April to March) | 16,845 | 24,097 | 6,819 | 47,761 | $tCO_2e$ | |
| Year 8 carbon footprint | 2015/16 | Financial (April to March) | 16,144 | 22,321 | 7,090 | 45,555 | $tCO_2e$ | |

**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 use a simple emissions factor (a), leave the field blank and provide the total emissions for that category of emission source in the 'Emissions' column.*

*(a) Emissions factors are published annually by the UK Government for environment, Food and Rural Affairs (DEFRA).*

| Emission Source | Scope | Consumption Data | Units | Emission Factor | Units | Emissions ($tCO_2e$) | Comments |
|---|---|---|---|---|---|---|---|
| Natural Gas | Scope 1 | 65,989,378 | kWh | 0.1845 | kg CO2e/kWh | 12,172 | Natural gas use in Council buildings. Included in Carbon Reduction Target. |
| Gas oil | Scope 1 | 1,627,518 | kWh | 0.2710 | kg CO2e/kWh | 441 | Gas oil use in Council buildings. Included in Carbon Reduction Target. |
| Biomass | Scope 1 | 581,125 | kWh | 0.0132 | kg CO2e/kWh | 8 | Heat contract output data available for biomass. Assume 80% efficiency to estimate input value. Included in Carbon Reduction Target. |
| Diesel | Scope 1 | 1,063,879 | Litres | 2.5839 | kg CO2e/litre | 2,749 | Assuming 6.5% for additional fuel not included and contingency. |
| Petrol | Scope 2 | 43,392 | Litres | 2.1944 | kg CO2e/litre | 95 | Assuming 6.5% for additional fuel not included and contingency. |
| Gas oil | Scope 3 | 2,505,608 | kWh | 0.2710 | kg CO2e/kWh | 679 , | Assuming 6.5% for additional fuel not included and contingency. Converted from litres to kWh using conversion factor of 10.7 kWh per litre in order to use gas oil emission factor. |
| Grid Electricity (generation) | Scope 2 | 39,057,722 | kWh | 0.4622 | kg CO2e/kWh | 18,052 | Grid electricity used in Council buildings. Included in Carbon Reduction Target. |
| Grid Electricity (transmission &distribution losses) | Scope 3 | 39,057,722 | kWh | 0.0382 | kg CO2e/kWh | 1,490 | Grid electricity used in Council buildings. Included in Carbon Reduction Target. |
| Grid Electricity (generation) | Scope 2 | 9,236,959 | kWh | 0.4622 | kg CO2e/kWh | 4,269 | Grid electricity used for streetlighting and other sources (car parks, signage etc.) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Grid Electricity (transmission &distribution losses) | Scope 3 | 9,236,959 | kWh | 0.0382 | kg CO2e/kWh | 353 | Grid electricity used for streetlighting and other sources (car parks, signage etc.) |
| Water use | Scope 3 | 359,512 | m3 | 0.3440 | kg CO2e/m3 | 124 | Actual data but likely to be consumption missing as process to get unmetered properties onto metering is ongoing. |
| Water treatment | Scope 3 | 341,536 | m3 | 0.7080 | kg CO2e/m3 | 242 | Estimated at 95% of water use total for same year. |
| Waste disposal - landfill - commercial | Scope 3 | 2,880 | tonnes | 93.0000 | kg CO2e/ tonne | 268 | Includes DCC waste within commercial collection (estimated at 12.88% of commercial waste) |
| Waste disposal - incineration - commercial | Scope 3 | 8,116 | tonnes | 21.0000 | kg CO2e/ tonne | 170 | Includes DCC waste within commercial collection (estimated at 12.88% of commercial waste) |
| Waste disposal - composting - commercial | Scope 3 | 2,432 | tonnes | 6.0000 | kg CO2e/ tonne | 15 | |
| Waste disposal - recycling - commercial | Scope 3 | 1,323 | tonnes | 21.0000 | kg CO2e/ tonne | 28 | |
| Waste disposal - landfill - municipal | Scope 3 | 4,683 | tonnes | 459.0000 | kg CO2e/ tonne | 2,149 | |
| Waste disposal - incineration - municipal | Scope 3 | 34,218 | tonnes | 21.0000 | kg CO2e/ tonne | 719 | |
| Waste disposal - composting - municipal | Scope 3 | 8,856 | tonnes | 6.0000 | kg CO2e/ tonne | 53 | |
| Waste disposal - recycling - | Scope 3 | 13,976 | tonnes | 21.0000 | kg CO2e/ tonne | 293 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| municipal | | | | | | | |
| Business travel - private car | Scope 3 | 1,861,484 | km | 0.1864 | kg CO2e/km | 347 | No information available about car size or fuel so unknown size/unknown fuel factor used |
| Business travel - lease car | Scope 3 | 647,751 | km | 0.1756 | kg CO2e/km | 114 | Assume that lease cars are on average medium diesel cars. |
| Business travel - taxi | Scope 3 | 22,332 | passenger km | 0.1748 | kg CO2e/ passenger km | 4 | From transport expenditure against cost centre codes with assumptions about % expenditure against different modes, therefore data should be treated as an estimate. |
| Business travel - bus | Scope 3 | 324,910 | passenger km | 0.1088 | kg CO2e/ passenger km | 35 | From transport expenditure against cost centre codes with assumptions about % expenditure against different modes, therefore data should be treated as an estimate. |
| Business travel - rail | Scope 3 | 715,050 | passenger km | 0.0451 | kg CO2e/ passenger km | 32 | From transport expenditure against cost centre codes with assumptions about % expenditure against different modes, therefore data should be treated as an estimate. |
| Business travel - air | Scope 3 | 39,628 | passenger km | 0.2980 | kg CO2e/ passenger km | 12 | From transport expenditure against cost centre codes with assumptions about % expenditure against different modes, therefore data should be treated as an estimate. |
| Business travel - diesel | Scope 3 | 92,514 | litres | 2.5839 | kg CO2e/litre | 239 | Assumed to be separate from fleet petrol and therefore assigned to Scope 3. |
| Business travel - petrol | Scope 3 | 89,064 | litres | 2.1944 | kg CO2e/litre | 195 | Assumed to be separate from fleet diesel and therefore assigned to Scope 3. |
| Service travel - taxi | Scope 3 | 352,080 | passenger km | 0.1748 | kg CO2e/ passenger km | 62 | From transport expenditure against cost centre codes with assumptions about % expenditure against different modes, therefore data should be treated as an estimate. |
| Service travel - bus | Scope 3 | 400,535 | passenger km | 0.1088 | kg CO2e/ passenger km | 44 | From transport expenditure against cost centre codes with assumptions about % expenditure against different modes, therefore data should be treated as an estimate. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Service travel - coach | Scope 3 | 412,120 | passenger km | 0.2483 | kg CO2e/ passenger km | 102 | From transport expenditure against cost centre codes with assumptions about % expenditure against different modes, therefore data should be treated as an estimate. Average van EF used as no coach factor available. |
| | | | | | Total | 45,555 | |

**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 consumed by the body (kWh)** | **Total exported (kWh)** | **Total consumed by the body (kWh)** | **Total exported (kWh)** | **Comments** |
| Solar PV | | | | | |
| Solar Thermal | | | | | |
| Wind | | | | | |
| Hydro | | | | | |
| Wave | | | | | |
| Tidal | | | | | |
| Biogas CHP | | | | | |
| Landfill Gas CHP | | | | | |
| Biomass | | | 464,900 | | Supplied through heat supply contract |
| Biogas | | | | | |
| Air Source Heat Pump | | | | | |
| Ground Source Heat Pump | | | | | |
| Water Source Heat Pump | | | | | |

**These are the list of entries provided within the form that can be selected from the dropdown menu and the corresponding consumption / export data can be entered under the appropriate heading.*

## Targets

### 3d) Organisational 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Management Plan target | Annual % | 5 | Annual % reduction | Energy use in buildings | 32,163 (5% reduction) | 2014/15 | 34,003 | $tCO_2e$ | 2019/20 | This target is based on energy use in buildings (electricity, natural gas, gas oil and biomass); although the carbon footprint boundary has been widened to include other sources, for consistency, reporting against this target will continue until 2019/20. The total % reduction since 2007/08 has been 11%. |

**Project and changes**

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

*If no projects were implemented against and emissions source, enter "0". If the organisation does not have any information for an emissions source, enter "Unknown" in the comments box. If the organisation does not include the emissions source in its carbon footprint, enter "N/A" in the comments box.*

| Emissions source | Total estimated annual carbon savings ($tCO_2e$) | Comments |
|---|---|---|
| Electricity | Unknown | Total savings from projects to be defined. Project Register currently being developed to allow data to be recorded for 2016/17 annual report. |
| Natural Gas | Unknown | |
| Other heating fuels | Unknown | |
| Waste | Unknown | |
| Water and sewerage | Unknown | |
| Business Travel | Unknown | |
| Fleet transport | | |
| Other 1 (specify in comments) | - | |
| **Total** | | |

## 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 the report year.*

| Project name | Funding source | First full year of $CO_2e$ savings | Estimated or actual savings | Capital cost (£) | Operational cost (£/annum) | Project lifetime (years) | Primary fuel/ emission source saved | Estimated carbon savings per year ($tCO_2e$/annum) | Estimated costs savings (£/annum) | Behaviour Change aspects | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy saving in schools - Behaviour | N/A | 2016/17 | Estimated | 0 | | 2 | | 1,639 | 300,000 | Yes | Electricity and Gas |
| Replacement vehicles through annual replacement plan | Capital Plan | 2016/17 | Estimated | 1,530,000 | | | diesel | 75 | | No | Complete |
| Reduction in fuel/mileage/new technology – continual management of telematics | n/a | 2016/17 | Estimated | 0 | | | diesel | 50 | | No | Complete |
| DCA - Replace Existing Lamps to Designated Areas With Low Energy Alternatives | CEEF | 2016/17 | Estimated | 27,000 | | 20 | Grid Electricity (kWh) | 44 | 5,330 | No | Complete |
| Electric Vehicles – further purchase of vans and cars | Capital Plan | 2016/17 | Estimated | inc. in replacement vehicle capital plan project | 30% reduction in maint. costs | | Grid Electricity (kWh) | 23 | | No | Complete |
| DCA - Install De-Stratification fans outside galleries and level 5 office | Capital Plan | 2016/17 | Estimated | 14,000 | | 15 | Grid Electricity (kWh) | 17 | 610 | No | Complete |
| Reduction in vehicles across the fleet | n/a | 2016/17 | Estimated | 0 | Reduction of £60k from revenue costs | | diesel | 10 | | No | Complete |
| Idling time – base data collection | n/a | 2016/17 | Estimated | 0 | | | diesel | 5 | | Yes | Complete |
| DCA - LED lighting in reception | CEEF | 2016/17 | Estimated | 2,000 | | 20 | Grid Electricity (kWh) | 3 | 500 | No | Complete |
| Craigie High School - LED lighting in pool hall | Capital Plan and CEEF | 2016/17 | Estimated | 6,820 | | 20 | Grid Electricity (kWh) | 1 | 251 | No | Complete |

**3g) Estimated decrease or increase in the body's emissions attributed to factors (not reported anywhere else 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 amount and direction.*

| Emissions source | Total estimated annual emissions ($tCO_2e$) | Increase or decrease in emissions | Comments |
|---|---|---|---|
| Emission factor | 1,800 | Decrease | Saving from reduction in grid emission factor in 2015/16 compared to 2014/15. Estimated saving based on same electricity consumption using 2014/15 factor. |
| Estate change | unknown | Increase | Impact of estate changes still to be defined. |
| Staff Numbers | unknown | Decrease | A reduction in staff numbers may lead to a decrease in emissions, although guidance required on how to estimate this. |
| Service provision | unknown | | |
| **Total** | 1,800 | | |

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

*If no projects are expected to be implemented against an emissions source, enter "0". If the organisation does not have any information for an emissions source, enter "Unknown" into the comments box. If the Organisation does not include the emissions source in its carbon footprint, enter "N/A" into the comments box.*

| Emissions source | Total estimated annual carbon savings ($tCO_2e$) | Comments |
|---|---|---|
| Electricity | Approx. 200 | Craigiebarns Primary School - heating upgrade from electric to gas.<br>DCA Building Energy Management System upgrade and Air Handler Unit upgrade.<br>DCA – LED lighting in reception. |
| Natural gas | Unknown | |
| Other heating fuels | | |
| Waste | | |
| Water and sewerage | Unknown | |
| Business Travel | | |
| Fleet Transport | | |
| Other | | |
| **Total** | - | |

**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 the direction.*

| Emissions source | Total estimated annual emissions ($tCO_2e$) | Increase or decrease in emissions | Comments |
|---|---|---|---|
| Emission factor | 2,500 | Decrease | Future saving from reduction in grid emission factor in 2016/17 compared to 2015/16. Estimated saving based on same electricity consumption using 2016/17 factor. |
| Estate changes | unknown | Increase | Impact of estate changes still to be defined. |
| Staff numbers | unknown | Decrease | A reduction in staff numbers may lead to a decrease in emissions, although guidance required on how to estimate this. |
| Service provision | unknown | | |
| **Total** | | | |

**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").*

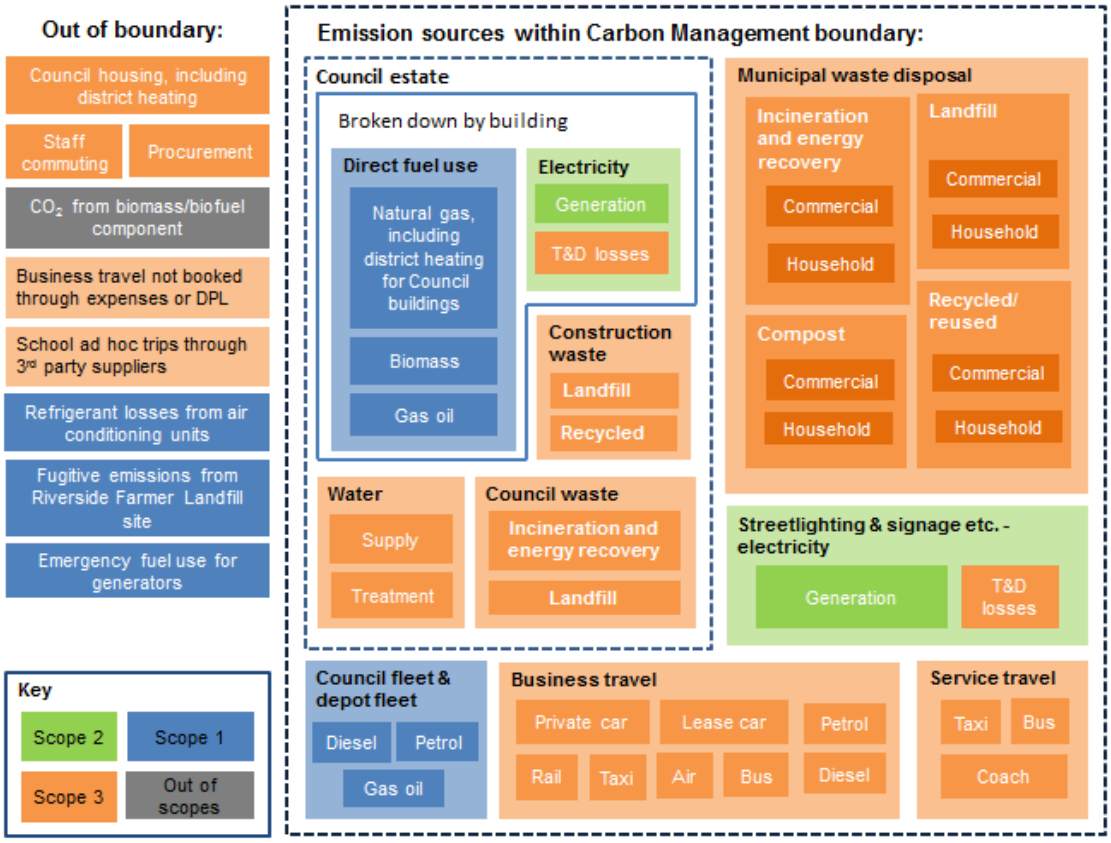
| Total savings | Total estimated emissions savings ($tCO_2e$) | Comments |
|---|---|---|
| Total project savings since baseline year | unknown | Total savings from projects to be defined. Project Register currently being developed to allow data to be recorded for 2016/17 annual report. |

**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.*

The boundary of the Council's carbon footprint has been reassessed and extended as illustrated in the diagram below with historical data for the added emission sources included in the previous years ensuring that the boundary is consistent over the time series. Where data was missing, a methodology was developed for extrapolating an estimated data point and this has been fully documented.

*Dundee City Carbon Footprint 2016*




# 4 ADAPTATION

## Assessing and managing risk

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

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

In partnership with the Scottish Cities Alliance and Jacobs, a 'Low Carbon and Climate Change Adaptation Opportunity Assessment' was published in February 2015 which provides a high level indicative assessment of the economic risks of potential adaptation impacts at the city level.

With support from Resource Efficient Scotland a 'Climate Change Assessment Tool' workshop was held on August 2015. Part of the assessment covers a self-evaluation of the Council's adaptation performance, with five questions centred on Adaptation Scotland's 5 Steps to managing climate risks. Key priority areas and actions for improvement were identified which are outlined for future action in 4g below.

Detailed analysis of long term climate trends were used to prepare the Dundee Coastal Study Stage 2 (Aug 2013) and as part of ongoing flood risk management. The Study identifies a framework within which local flood alleviation and coastal erosion defence schemes are developed at different locations along Dundee's 16.9km of coastal frontage. As part of the development of the programme, an Options Workshop was held to consider the types of coastal defences in each of the nine geographical management sections. The study identifies that there is a risk of coastal flooding within Central Dundee, Broughty Ferry, Riverside Drive and Dundee Airport.

The Tayside Integrated Catchment Study is well underway and a Model has been developed. This models combined sewer and surface water systems and watercourses within Dundee and Tayside. Led by Scottish Water and completed up to Pre-Optioneering stage. Outputs will be used to prepare a Surface Water Management Plan for Dundee.

In partnership with other responsible authorities, the Council has prepared a plan to reduce flood risk within Dundee City as required by the Flood Risk Management (Scotland) Act.

The Council has prepared and operates a Flood Emergency Plan that is updated annually. The plan identifies known areas of flooding and measures to be taken when Flood Alerts are received and clearly assigns roles and responsibilities within the organisation for mitigating these events.

**4b) 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 Council's Generic Emergency and Business continuity Plans are wide enough in scope to apply to risks associated with:

- Disruption to energy, transport, water and ICT infrastructure and delivery networks;
- Rising sea levels for coastal communities
- Impacts on health and well being of individuals and communities

Departmental Risk Registers may include 'climate-related' risks but are more likely to be referenced as severe weather impacts.

The Council has prepared and operates a Flood Emergency Plan that is updated annually. The plan identifies known areas of flooding and measures to be taken when Flood Alerts are received and clearly assigns roles and responsibilities within the organisation for mitigating these events.

All Council strategies, plans and programmes continue to undergo Strategic Environmental Assessment (SEA) to assess their environmental impact including climate change adaptation risk and opportunities.

**<u>Taking Action</u>**

**4c) What action has the organisation 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.*

<u>Building adaptive capacity</u>

The Council joined Adaptation Scotland's 'Adaptation Learning Exchange' (ALE) in May 2015 to help officers better understand and manage climate-related impacts. The programme ran from June to December and consisted of three one-day workshops and support to help build the business case for a planned approach, using the "Five Steps to Managing your Climate Risks" guidance.

As part of the ALE programme, an Adaptation briefing paper was prepared for the Council's Climate Change Board in June 2015 providing info on the policy context, terminology, data projections, potential impacts on services and resources available to help the organisation.

A briefing meeting on adaptation was held with the Council's new Elected Member champion for climate change in August 2015 and, in partnership with Adaptation Scotland, a lunchtime briefing was held in November 2015 for elected members and senior officers on the topic of *'Resilient communities: impacts and opportunities from a changing climate'*. The session provided information on understanding climate change terminology, trends and projections; the impacts and risks of extreme weather on our communities and services and managing climate risks and taking local action.

Two climate change adaptation workshops were held in 2013 in partnership with Adaptation Scotland to raise awareness and train TAYplan colleagues on adaptation, as well and identify where policy changed could be made to promote greater integration of climate change adaptation measures.

In January 2016 the Council's Policy and Resources Committee agreed to become a signatory to the EU Covenant of Mayors and prepare a Sustainable Energy and Climate Action Plan (SECAP) under the auspices of the Dundee Partnership Community Planning Partnership. Adaptation and Resilience will be developed as one of the plan's six strategic programmes.

Delivering adaptation action

The Tay Estuary and Montrose Basin Local Flood Risk Management Plan was published on 22nd June 2016 in co-ordination with Angus, Aberdeenshire, PKC, Scottish Water and SEPA. The plan is to be reviewed and updated every 3 years after publication.

The Tayside Integrated Catchment Model has been developed to assist with the above. It models combined sewer and surface water systems within Dundee and Tayside. Led by Scottish Water and completed up to Pre-Optioneering stage. Outputs will be used to prepare a Surface Water Management Plan for Dundee.

As part of the preparation of the Dundee Coastal Study Stage 2, a full Economic Appraisal was carried out and demonstrated that the upgrading of flood defences along the Dundee frontage could be economically justified. From the appraisal process, progression of four flood protection schemes are currently underway or completed:

- *Broughty Ferry - Glass Pavilion to Bridge Street*. Construction of rock armour revetment works completed in September 2015.

- *Central Waterfront*. Works to raise the height of existing sea wall were completed in Autumn 2015 as part of V&A development.

- *City Quay to Central Waterfront* and *Central Waterfront to Dundee Airport*. Design works utilising set back walls and flood gates are well underway and a Flood Protection Scheme under the Flood Risk Management (Scotland) Act has been created. It is intended that these works will start onsite in Autumn 2016 with a 12 month construction period.

- *Broughty Ferry Esplanade - Car Park to Glass Pavilion*. Progressing design works on soft flood protection measures utilising and existing sand dunes.

- *Broughty Ferry Town - Douglas Terrace to Broughty Castle*. It is proposed to construct a new river wall and steps along with walkway and a combination of setback wall and gates that will provide flood protection. Design stage currently underway along with Site Investigation works. It is anticipated that these works will commence in Summer 2017 subject to the successful promotion of a Flood Protection Scheme.

- *Broughty Ferry Grassy Beach*. Works to protect this area form coastal erosion via the installation of a gabion mattress or equivalent (Design currently progressing).

**4d) 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 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' column for that objective.*

*(a) The Programme aims to address impacts identified for Scotland in the UK-wide climate change risk assessment which are not otherwise addressed by the UK-wide National Adaptation Programme through policy in relation to reserved matters.*

| 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 | N1-8; | Dundee City Council has engaged in the development of the Local Flood Risk Management Plan through membership of the Tay Estuary and Montrose Basin (TEAMB) Local Plan District. |
| | | | N1-10 | Analysis of long term trends used to inform Dundee Coastal Study Stage 2 and as part of ongoing flood risk management.<br><br>The Tayside Integrated Catchment Study is well underway and a Model has been developed. This models combined sewer and surface water systems and watercourses within Dundee and Tayside. Led by Scottish Water and completed up to Pre-Optioneering stage. Outputs will be used to prepare a Surface Water Management Plan for Dundee.<br><br>Local Development Plan – Policy 41 recognises the implications of climate change and sea level rise and there is a presumption against development in areas vulnerable to coastal erosion, flood risk and rising sea levels. |
| Support and healthy and diverse natural environment with capacity to adapt | N2 | Natural Environment | N2-2; N2-11 | The Local Development Plan (LDP) contains policies on green networks, habitat enhancement. The LDP non-statutory planning guidance on the Dundee Green Network was published for public consultation 1 October - 13 November 2015. Key development principles are outlined in relation to climate change adaptation and mitigation; improve quality of place; facilitate people to lead healthier lives; protect and enhance the city's green and blue assets. |

| | | | | |
|---|---|---|---|---|
| | | | N2-18; N2-20 | Dundee City Council has engaged in the development of the Local Flood Risk Management Plan through membership of the Tay Estuary and Montrose Basin (TEAMB) Local Plan District. |
| Sustain and enhance the benefits, goods and services that the natural environment provides | N3 | Natural Environment | | N/A<br>Dundee City Council is not listed as a responsible authority for this objective |
| Understand the effects of climate change and their impacts on buildings and infrastructure networks | B1 | Buildings and infrastructure networks | B1-13 | Dundee City Council has engaged in the development of the Local Flood Risk Management Plan through membership of the Tay Estuary and Montrose Basin (TEAMB) Local Plan District. Local Development Plan Policy 41 recognises the implications of climate change and sea level rise and there is a presumption against development in areas vulnerable to coastal erosion, flood risk and rising sea levels.<br><br>The Tayside Integrated Catchment Study is well underway and a Model has been developed. This models combined sewer and surface water systems and watercourses within Dundee and Tayside. Led by Scottish Water and completed up to Pre-Optioneering stage. Outputs will be used to prepare a Surface Water Management Plan for Dundee. |
| Provide the knowledge, skills and tools to manage climate change impacts on buildings and infrastructure | B2 | Building and infrastructure networks | | N/A<br>Dundee City Council is not listed as a responsible authority for this objective |
| Increase the resilience of buildings and infrastructure networks to sustain and enhance the benefits and services provided | B3 | Buildings and infrastructure networks | B3-3 | Adopted LDP policies encourage installation of low and zero carbon generating technology in new buildings, active travel and development of network of green infrastructure. Review in forthcoming Main Issues Reports/SEA process and supplementary planning guidance. New non-statutory planning guidance published for public consultation on the Dundee Green Network to promote opportunities to enhance and protect. Investment in housing stock to meet SHQS |

| | | | | |
|---|---|---|---|---|
| | | | B3-6 | The Council continues to maximise the impact of the Home Energy Efficiency Programme Scotland – Area Based Schemes (HEEPS:ABS) funding by combining this stream with its own capital budget and ECO funding from SSE to externally insulate mixed tenure blocks of flats in former Council estates that are either solid wall or non-traditional construction. Over 2,000 properties have been externally insulated, including Clepington Road, Arklay Street, Caird Avenue and Hospital Park. These properties have been visibly transformed and more importantly, resulted in reduced fuel bills and increased comfort and warmth for householders.<br><br>Project areas have been identified, prioritised by most Fuel Poor first, and a process review undertaken in order to enable quick mobilisation in partnership with SSE and start on site should new funding become available. The Council's HEEPS:ABS allocation for 2015/16 was £2,647,500 and an additional £647,000 was secured near year end which has helped to mitigate the lower 2016/17 allocation of £1,238,929 by allowing a 2016/17 priority area, Sandeman Street to be brought forward.<br><br>Dundee Energy Efficiency Advice Project (DEEAP) advisors, Private Sector Services Unit (PSSU), Care and Repair and Asset Management staff continue to raise awareness and make referrals to Home Energy Scotland (HES) for private owners and tenants |
| | | | B3-7 | At the end of 2015, Dundee City Council required only 143 abeyances for the energy efficiency component of SHQS out of a stock of 12750 properties. This amounts to 1.12% and therefore 98.88% of the stock was energy-efficient. Measures carried out over the course of the year towards achievement of SHQS included installation of:<br><br>• New roofs (including loft insulation of 300mm) at 36 properties;<br>• New, energy-efficient windows at 129 properties;<br>• 1353 new, energy-efficient gas heating systems; and<br>• External Wall insulation (EWI ) at 475 solid-wall and non-traditional properties both Council and private using a blend of HEEPS:ABS, ECO and Council's own capital funding. |

| | | | | |
|---|---|---|---|---|
| Understand the effects of climate change and their impacts on people, homes and communities | S1 | Society | | N/A<br>Dundee City Council is not listed as a responsible authority for this objective, however the its annual Flood Emergency Plan is identifies known areas of flooding and measures to be taken when Flood Alerts are received and clearly assigns roles and responsibilities within the organisation for mitigating these events. |
| Increase the awareness of the impacts of climate change to enable people to adapt to future extreme weather events | S2 | Society | | N/A<br>Dundee City Council is not listed as a responsible authority for this objective however, in partnership with other responsible authorities, the development and implementation of the Flood Risk Management Plan includes elements of awareness raising. |
| Support of our health services and emergency responders to enable them to respond effectively to the increased pressures associated with a changing climate | S3 | Society | | N/A<br>Dundee City Council is not listed as a responsible authority for this objective however, the Council support health service and emergency responders within the duties of the Civil Contingencies (Scotland) Act 2005. |

## Review, monitoring and evaluation

**4e) 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).*

Current and future climate risks will be assessed through the development of an 'Adaptation & Resilience' strategic programme within the Dundee Partnership's Sustainable Energy and Climate Action Plan for the city.

Participation in Adaptation Scotland's 'Adaptation Learning Exchange' will assist officers working in climate change, risk & resilience and planning related fields to build their knowledge base and capacity to respond to adaptation at an organisational level and provide them with the support to communicate adaptation issues and present robust business cases for taking action.

The Council will introduce a new online Integrated Impact Assessment (IIA) tool to assist Committee report authors to consider the likely impacts of their report (including climate adaptation issues) and provide details on any required mitigating action to overcome negative impacts or proposals.

**4f) 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)*

Surface Water Management Planning Group will be set up to monitor the effectiveness of flood protection measures carried out. Annual surveys are also carried out to monitor coastal erosion.

The Flood Emergency Plan requires the Council to record effectiveness of implementation of mitigation measures and record new areas that require attention.

The Council will work in partnership with SEPA to review and update flood risk maps.

## Future priorities for adaptation

**4g) 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.*

1) Establish a Surface Water Management Planning Group and deliver Flood Protection Schemes highlighted in Section 4c.
2) Participate in the 'Adaptation Learning Exchange'.
3) Strengthen role of adaptation in new Local Development Plan.
4) Via the Dundee Partnership, commence preparation of the city's Sustainable Energy and Climate Action Plan, including the 'Adaptation & Resilience' strategic programme.
5) Prepare climate/weather impacts profile.

**4h) Supporting information and best practice**

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

None.

# 5 PROCUREMENT

**5a) 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 Tayside Procurement Consortium (TPC) is the central procurement team created by Dundee, Angus and Perth and Kinross Councils, in association with Tayside Contracts to manage collaborative procurement activity on behalf of the three Tayside Councils. The TPC 'Sustainable Procurement Policy' was introduced to support the Council comply with its climate change duties and commits to buying more sustainably, which in turn can offer whole life cost efficiency, supports the commitment to Corporate Social Responsibility and can promote health improvements amongst stakeholders. Key sustainable procurement objectives addressed by the policy are:

- Seek to reduce carbon emissions through developing improved specification.
- Seek to contribute to climate change adaptation through procurement activity.
- Embed sustainability at the heart of procurement activity and deliver a number of specific sustainable outcomes.

Examples of where procurement policy has delivered on climate change aims include:

- Heavy Goods Vehicles available through the collaborative framework generally contain in excess of 90% recyclable materials which can be reclaimed at the end of the vehicles life and the primary goal of the Euro VI emissions standards is to reduce harmful emissions from vehicles;
- Electric Vehicle Charging Points – a collaborative framework is in place to support the increase of the number of charge points in the Tayside allowing wider use of electric vehicles and positively contributing to our climate change commitment.

http://www.taysideprocurement.gov.uk/strategy/Finalised%20Tayside%20Procurement%20Strategy%202011-15.pdf

Dundee became Scotland's first Fairtrade City in 2004 and updated it Fairtrade Policy in 2012. The Council continues to implement the policy's four key aims:

- to increase the use of fairly traded products in all Council departments;
- to promote and raise awareness of Fair Trade amongst all Council employees and in Council schools;
- to include fairly traded products in appropriate Council contracts and franchises where catering may be provided by an external provider;
- to work in partnership with Dundee Fair Trade Forum and other relevant local and national organisations to promote Fair Trade

http://www.dundeecity.gov.uk/reports/reports/37-2012.pdf

**5b) 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 change duties.*

Sustainable outcomes are included in TPC specifications. Examples of positive outcomes delivered in 2015/16 include:

- The 'Waste Disposal Equipment Framework' includes outcomes for the reduction of waste to landfill and packaging; recycling initiatives; the use of renewable energy including biomass and solar panels; and the application of emissions targets and fuel efficiency measures.

- The 'Electrical Materials Framework' includes outcomes for the reduction of waste to landfill and packaging; recycling initiatives; the use of renewable energy including biomass and solar panels; the use of LED's; and the application of emissions targets and fuel efficiency measures. All applicable products must comply with the relevant provisions of the Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 and ensure that products are certified as Restriction of Hazardous Substances (ROSH) compliant by the relevant manufacturer.

- The 'IT Hardware Framework' includes minimum specification for the latest energy efficiency and environmental accreditations.

- It is estimated that TPC have diverted approximately 2,500 tonnes of waste from landfill through use of sustainable requirements in its collaborative contracts in 2015/16.

To prepare for the requirements of the Procurement Reform (Scotland) Act 2014, Council procurement officers attended 'Marrakech Sustainable Public Procurement Training' sessions in November/ December 2015 that focused on embedding sustainable procurement practices within the Council through reviewing the need to specification, ITT and evaluation, supplier selection and contract management.

The Council continues to use the innovative resource-redistribution tool – WARPit – that makes it easy for staff to obtain unwanted resources within the council and beyond, reducing procurement spend and waste disposal costs, as well as minimising waste and reducing carbon emissions. By the end of July 2016, WARPit had helped the council divert almost 25 tonnes of waste, saved 73 tonnes of $CO_2$ and saved the Council its partners £167,000 in avoided procurement costs.

The Council had previously made a silver pledge under WWF's 'What Wood You Choose' campaign, to improve our procurement of sustainability timber products for Council construction and maintenance/ repairs projects. The Council was awarded its Silver Pledge in August 2014 and continue to monitor all new Council timber procurement contracts, requiring timber suppliers to provide a copy of their relevant chain of custody certification at the start of construction as stated in section 236 of the Council's Bill of Quantity stipulating sustainable timber to be used on all contracts.

Recent Civil Engineering projects include a requirement on the contractor to prepare a Site Waste Management Plan at tender stage and to monitor and maintain this during construction. This allows partners within the contract to develop a strategy for site waste at an early stage and ensure that this is implemented throughout the project. This information can be used at a senior level to help manage waste, for example the potential reuse of earthworks and demolition materials across Council projects.

**Further information**

**5c) Supporting Information and best practice**

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

None.

# 6 VALIDATION AND DECLARATION

## 6a) Internal validation process

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

Data and information is sourced from relevant departments and collated by the Sustainability and Climate Change Manager. The report is then circulated internally for verification before being presented to the Council's Climate Change Board. The report is then submitted to the Council Management Team for further comment before submitted to the Council's Policy and Resources Committee for approval.

## 6b) Peer validation process

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

The report is circulated internally to relevant officers for verification prior to presenting to the Council's Climate Change Board.

## 6c) External validation process

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

Information and data contained in Section 3 of the report was audited by CARBON Forecast Ltd and the methodologies for completing data sources were documented.

All emissions data that falls under the scope of CRC is validated by SEPA.

## 6d) 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

## 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.*

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|---|---|
| **Name:** | Bryan Harris |
| **Role in the organisation:** | Sustainability and Climate Change Manager |
| **Date:** | 20th October 2016 |