Aberdeenshire COUNCIL Environment & Infrastructure Services

REPORT TO ABERDEENSHIRE COUNCIL – 9 MARCH 2022

CARBON BUDGET 2022 - 2023

1 Executive Summary/Recommendations

1.1.1 The report contains Aberdeenshire Council's Carbon Budget for 2022 – 2023 and identified projects which will reduce the Council's emissions by a further 1445 tonnes Carbon Dioxide Equivalent (tCO2e) in 2022 - 2023. Projects include LED replacements, solar PV, pipe insulation, and improving reuse and recycling.

1.1.2 The report highlights success to date by Aberdeenshire Council in reducing its internal emissions annually and further identifies a need for feasibility work in 2022 - 2023 across 27 operational Council buildings to support identifying opportunities and costs for future carbon budgets.

1.2 Full Council is recommended to:

1.2.1 Agree a total Carbon Budget of 47,383 tonnes CO2e for 2022 - 2023 as set out in Table 1 in Appendix 1;

1.2.2 Agree future Carbon Budgets for 2023 - 2024 to 2030 - 2031 on a provisional basis as set out in Table 2 in Appendix 1;

1.2.3 Agree the Carbon Budget 2022 - 2023 reduction measures as set out in Appendix 2 and 3;

1.2.4 Delegate the responsibility for developing and delivering feasibility studies, as proposed in Appendix 4, to the Director of Environment and Infrastructure;

1.2.5 Note the risks set out in Appendix 5;

1.2.6 Delegate the responsibility to each Director to secure their reduction totals as set out in Appendix 2 and 3, including identifying further CO2e savings for the Directorate for 2022 - 2023 and future years up to 2045; and

1.2.7 Instruct each Director to report in year progress at 6 monthly intervals to the relevant Policy Committees and to the Sustainability Committee.

2 Decision Making Route

2.1 Section 44 of Part 4 of the Climate Change (Scotland) Act 2009 places duties on public bodies relating to climate change. These duties entered into force on

1 January 2011 and require that a public body must, in exercising its functions, act:

- In the way best calculated to contribute to delivery of the Act's emissions reduction targets;
- In the way best calculated to deliver Scotland's statutory climate change adaptation programme; and
- In a way that it considers most sustainable.

2.2 The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 sets national emissions reduction targets as:

- At least 75% lower than the baseline year by 2030;
- At least 90% lower than the baseline year by 2040; and
- Net Zero by 2045 ('Net Zero' refers to achieving an overall balance between emissions produced and emissions taken out of the atmosphere).

2.3 On 18 March 2020 Aberdeenshire Council agreed a Climate Change Declaration (item 9), committing the Council to work towards a carbon free society by reducing its own emissions by 75% (2010/11 baseline) by 2030 and to work with others across the region to ensure that Aberdeenshire reaches Net Zero by 2045.

2.4 Aberdeenshire Council has utilised a Carbon Budget process since 2017/18 as a method to plan and manage emission reduction across the organisation. On 24 June 2021, Aberdeenshire Council agreed a one-off allocation of £100,000 to support the next phase of developing the Carbon Budget setting process (item 10). The new revised process currently under development will look to support the Council in developing a methodology which costs out a Route Map to 2030 and fully integrates future Carbon Budgets with the financial budgets.

2.5 On 25 August 2021, the Sustainability Committee agreed a project outline for the one-off allocation (item 6) and consultants Arcadis began working on the Route Map 2030 development and Carbon Budget 2022/23 on 22 November 2021.

2.6 On 16 February 2022 the Sustainability Committee (item 6) was provided an update on the progress of the development of the Carbon Budget 2022/23, Route Map 2030, and Toolkit (for estimating cost per tonne saved for all the significant measures through the creation of a Marginal Abatement Cost (MAC) curve). Feedback from the Committee has been included in this report where possible.

3 Discussion

3.1 On 29 October 2021 the Scottish Government in partnership with Sustainable Scotland Network (SSN) published the Public Sector Leadership on the Global Climate Emergency guidance. The guidance is in part to support the Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020 which set out additional requirements for reporting periods commencing on or after 1 April 2021. Public bodies' annual climate change reports must now also include:

- Where applicable, the body's target date for achieving zero direct emissions of greenhouse gases, or such other targets that demonstrate how the body is contributing to Scotland achieving its emissions reduction targets;
- Where applicable, targets for reducing indirect emissions of greenhouse gases;
- How the body will align its spending plans and use of resources to contribute to reducing emissions and delivering its emissions reduction targets;
- How the body will publish, or otherwise make available, its progress to achieving its emissions reduction targets; and
- Where applicable, what contribution the body has made to helping deliver Scotland's Climate Change Adaptation Programme (currently the 2019 - 2024 Programme).

3.2 Aberdeenshire Council is already very well placed to demonstrate most of the additional requirements. The development of the Route Map 2030 will aim to capture any gaps in the above reporting requirements to ensure that the Council is working towards complying fully with the Amendment Order.

3.3 Table 1 and Figure 1 in **Appendix 1** demonstrate the progress being made annually by Aberdeenshire Council as it moves closer towards its reduction target of 75% by 2030 from its 2010/11 baseline year. Progress to date has been related to different services being engaged in reducing the Council's emissions. A few examples of this are energy efficiency and decarbonisation projects across the operational building estate, reduction in miles through both the Council fleet and grey fleet (business miles in personal vehicles), and changes to fuel type in our quarries.

3.4 In addition to projects, a reduction in the Council's overall emissions has also been supported by a number of different factors. The decarbonisation of the electricity grid sees an annual reduction in the emission factor associated with this which the Council benefits from.

3.4.1 For 2022 - 2023 it is estimated that a reduction of 500t CO2e will be realised due to this decarbonisation. It should be stressed that this is an estimation as

emission factors for 2022 are not published until after 1 April 2022. Assumptions for this estimation have been used by looking at the reduction trends from previous years.

3.4.2 The total emission reduction in 2020 – 2021 also demonstrates the impacts Covid-19 has had on the Council's emissions where a large decrease was evident in electricity use from the Council's operational buildings, fuel from fleet vehicles and business miles claims (personal vehicles, trains, flights). However, impacts of Covid-19 on 2021 - 2022 emissions are likely to demonstrate the challenges in relation to the guidance on improving air quality in Council buildings. Windows are required to be opened more to improve ventilation with the result being increased energy use through heating.

3.4.3 Homeworking emissions were added for the 2020 - 2021 reporting year and estimated using an emission factor provided by SSN and the Scottish Government as part of the Council's annual Public Bodies Climate Change Duties Reporting requirement. A breakdown of the emissions recorded for the 2020 – 2021 report can be found in Figure 2 in **Appendix 1**. All of Aberdeenshire Council's reports since 2014/15 can be found on the SSN webpage.

3.5 For the development of this Carbon Budget 2022 - 2023, Route Map 2030 and Toolkit there has been a great deal of stakeholder engagement across services to gather data. Focus has very much been on the opportunities to further reduce the Council's emissions from its operational buildings, fleet, and street lighting, as well as looking at additional opportunities, for example around reuse and recycling of resources, circular economy, road resurfacing, business miles, and extending the current LED streetlight programme to consider flood lighting across our household recycling centres, sport areas and parks. Other interventions highlighted by services to be assessed and considered further in 2022 - 2023 are listed in Table 2 in **Appendix 3**.

3.6 **Appendix 1** also demonstrates how the Carbon Budgets for 2022 - 2023 to 2030 - 2031 have been determined utilising the required linear reduction to 75% from the 2010 - 2011 baseline year (Table 1 & 2 and Figure 1). The Carbon Budget concept has been to allocate a reduction requirement of tonnes Carbon Dioxide Equivalent (tCO2e) annually for the organisation's internal emissions. Directorates will be required to work towards meeting emission reduction targets with support from the Route Map 2030 once completed. The annual reduction requirement for Aberdeenshire Council will be to identify projects which will save 2500 tCO2e each year. This will ensure we stay on track to reach our target and takes into consideration the decarbonisation of the grid and our progress to date.

3.7 For the Carbon Budget 2022 - 2023, the majority of projects listed are ones which were already identified as being planned for 2022 - 2023 and so have been captured in the Revenue and Capital budgets as shown in Table 1 in **Appendix 3**.

3.7.1 Some projects were put forward by services as ideas for reducing emissions. For example, the project under Environment & Infrastructure Services: Roads Resurfacing – Warm Mix. This project will reduce energy use by an estimated 15% with a neutral cost to the service due to the higher cost of warm mix bitumen being offset by lower energy costs to heat the warm mix compared to the current hot mix bitumen.

3.8 In addition to the reduction projects listed for 2022 – 2023 there is a need for the Council to take forward a number of feasibility studies on its operational buildings to identify opportunities and costs for future carbon budgets.

3.8.1 **Appendix 4** lays out the proposed feasibility studies and the indicative costs. Next steps involve working with the Energy Management team in developing a list of candidate sites and estimating the appropriate interventions, so that an estimate cost of the studies and retrofit activity can be confirmed for the respective carbon budgets.

3.9 There are also a number of projects happening across the Council that will support regional emission reduction but may not be captured through the Council's own emissions. For example, the Council does not report emissions from its Housing stock under current guidance.

3.9.1 There is a great deal of work ongoing by the Housing Service on energy efficiency measures, solar PV generation, battery storage and heat decarbonisation which should not go unrecognised. The development of the Local Heat and Energy Efficiency Strategy (LHEES) will also support area-based planning and delivery of the heat transition by decarbonising heating in buildings and improving energy efficiency across an entire local authority area. The delivery of the LHEES will support the statutory emissions reduction targets both internally and regionally.

3.10 Similarly, the Education and Children's Services Directorate has developed a Sustainability and Climate Change Strategy which highlights many outcomes related to behavioural change which should impact the Council's emissions in a positive way.

3.11 A Sustainability Champions programme (similar to the Council's Digital Champions programme) will also be promoted Council wide in the first quarter of 2022 - 2023. This programme has been developed over the past year with support from officers who volunteered from across different services led by the Sustainability and Climate Change team.

3.12 As mentioned in the preceding paragraphs, the Carbon Budget 2022 - 2023 and Route Map 2030 development relates only to Aberdeenshire Council's own emissions and not to the wider community or business emissions that relate to the area of Aberdeenshire. Work being done on the cross sector Climate Ready Aberdeenshire (CRA) climate change mitigation and adaptation strategy for the region will aim to capture this separately. This is very much still in its infancy but has a target date for completion in 2022. Regional emissions

calculations are underway for this project using the latest data available which is currently 2019.

3.13 Carbon Dioxide Equivalent (CO2e) is a standard unit for measuring carbon footprints. It is used to express the impact of each different greenhouse gas in terms of the amount of carbon dioxide that would create the same amount of warming. Therefore, the Council's carbon footprint consists of lots of different greenhouse gases expressed as a single number.

4 Council Priorities, Implications and Risk

4.1 This report helps deliver all six of the Council's Strategic Priorities.

Pillar	***Priority***
Our People	• Education • Health & Wellbeing
Our Environment	• Infrastructure • Resilient Communities
Our Economy	• Economy & Enterprise • Estate Modernisation

4.2 The table below shows whether risks and implications apply if the recommendations are agreed.

Subject	**Yes**	**No**	**N/A**
Financial	**X**		
Staffing	**X**		
Equalities and Fairer Duty Scotland	**IIA attached as Appendix 6**		
Children and Young People's Rights and Wellbeing	**IIA attached as Appendix 6**		
Climate Change and Sustainability	**IIA attached as Appendix 6**		
Health and Wellbeing			**X**
Town Centre First			**X**

4.3 The financial implications in reaching carbon emission reduction targets are potentially significant and will need to be addressed on an individual project basis and identified for the organisation as a whole. This work will inform the Council's Medium-Term Financial Strategy going forward and will seek to ensure that the programme of activities and projects represent best value in how the Council helps to deliver its duties under the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.

4.3.1 The target of 75% by 2030 is more challenging and will need considerable investment by both the Council, Governments and other stakeholders. The continued development of the Route Map 2030 and Toolkit will support this requirement. Completion of this work is set for 29 April 2022.

4.3.2 The work to consider just the Council's operational buildings has produced an initial broad estimate that there is a minimum requirement for circa £177,300,000 in Capital expenditure for energy efficiency and heat decarbonisation across the Council estate. This figure only captures costs and does not include any Revenue implications from investment which some of the projects will deliver on. These could be positive or negative. Further work will be required to look at these alongside the estimated Revenue costs associated with the replacement technologies that may then be deployed. This figure is not included in the Capital Plan currently as it requires further detailed work. The need for feasibility work to look at these figures in more detail with regards to site specific requirements, opportunities, barriers, costs, savings etc. is also discussed in paragraphs 3.8, 3.8.1 and **Appendix 4**. Indicative costs for these feasibility studies have been estimated as between £400,000 to £500,000 depending on the amount of feasibility work undertaken and the requirements for each study. Work is being taken forward to build in funding to the future Capital and Revenue budgets which will support this, whilst officers will also look to identify potential opportunities in Scottish and UK Government funding streams.

4.3.3 The work on the Fleet Decarbonisation Strategy has also identified the additional costs for purchasing Battery Electric Vehicles (BEV) in the range of £23.4m to £29.6m for the vehicles identified as suitable for BEV replacements and a further £1.67m for the supporting infrastructure. This is not reflected in the 2022/23 Capital Plan but will be fed into the Capital planning process which considers future years replacement programmes in line with standard asset management approaches. Collective work on the Capital planning process should then allow us to better reflect the need to decarbonise our fleet in future years.

4.3.4 Costs for Fuel Cell Electric Vehicles (FCEV) are not known for most vehicles segments and are not included in these costs. Work is ongoing by officers who are linking into national workstreams where the supply chain is focussed on what is required to decarbonise our vehicles of the future.

4.3.5 The timescales for the move away from purchase of internal combustion engine powered vehicles is of course earlier than for other sectors. This is due to the Scottish Government committing to the phasing out of all petrol and diesel cars from public sector fleets and removing the need for any new petrol or diesel light commercial vehicles by 2025, and to phase out the need for all new petrol and diesel vehicles in Scotland's public sector fleet by 2030. Therefore in 3 years' time we will not be purchasing new light commercial petrol or diesel vehicles for our fleet.

4.3.6 Although not a direct requirement under current climate change reporting guidance as it stands, work has also been advanced to consider the decarbonisation of the predominantly private sector fleet that operates our home to school transport. A report was considered at the Education & Children's Services Committee on 27 January 2022 (item 12) on Home to School Transport Emissions and with such an extensive network there is a likelihood that swapping out the diesel fleet of buses will see costs passed on

through contract rates. In its recent Strategic Transport Projects Review announcement, the Scottish Government did recognise this matter and are to consider widening existing funding criteria to include vehicles used for home-to-school and community transport services through a possible evolution of the Scottish Zero Emission Bus Fund. If adopted, that would open grant support for the purchase of zero emission coaches for the first time.

4.3.7 Working towards the Council's targets will also include a general evolution of staff roles to incorporate consideration of climate change as part of the day job. In the next 2 - 5 year period there is also the need to support Services and Directorates through augmenting the corporate lead team on Climate Change, as well as putting in place project specific leads. The options for funding this approach will be developed further in discussion with Finance and Service leads.

4.4 An Integrated Impact Assessment (IIA) has been carried out as part of the development of the proposals set out above. It is included as **Appendix 6** and there is a positive impact as follows: The Carbon Budget 2022 - 23 identifies many projects which will support a reduction in the Council's own emissions demonstrating a positive impact towards supporting action on climate change mitigation and adaptation. Reducing emissions from actions within the Council will support a cleaner, safer environment for children, young people, staff and residents of Aberdeenshire as well as provide exciting opportunities for development and learning.

4.5 It is important to consider, report and accept specific risks in setting the Carbon Budget, and those currently identified are listed in **Appendix 5**. The following Risks have been identified as relevant to this matter on a Corporate Level, however it is acknowledged that working towards a 75% reduction in Council owned emissions has the potential to impact upon any number of areas across the Council risk portfolio.

- Risk ID ACORP010 as it relates to environmental challenges and Risk ID ACORP006 as it relates to reputation management within the Corporate Risk Register).

The following Risks have been identified as relevant to this matter on a Strategic Level:

- Risk ID ISSR004 as it relates to Climate Change in the (Directorate Risk Registers)

5 Scheme of Governance

5.1 The Head of Finance and Monitoring Officer within Business Services have been consulted in the preparation of this report and their comments are incorporated within the report. They are satisfied that the report complies with the Scheme of Governance and relevant legislation.

5.2 Full Council is able to consider this item in terms of Section A.8.1 of the List of Committee Powers in Part 2A of the Scheme of Governance as it relates to approval of the annual estimates and setting the Council budgets including Revenue, Capital, Carbon and Housing Revenue Account.

Alan Wood
Director of Environment and Infrastructure Services

Report prepared by Claudia Cowie Team Leader Sustainability and Climate Change
24 February 2022

List of Appendices
Appendix 1 - Annual Carbon Budget requirements and progress to date
Appendix 2 - Carbon Budget 2022 -2023
Appendix 3 - Carbon Budget 2022-2023 Identified Costs and Financial Budget Lines
Appendix 4 - Feasibility Studies Recommendations for 2022-2023
Appendix 5 - Carbon Budget 2022/2023 Risks for Consideration
Appendix 6 - Integrated Impact Assessment (IIA)

Appendix 1

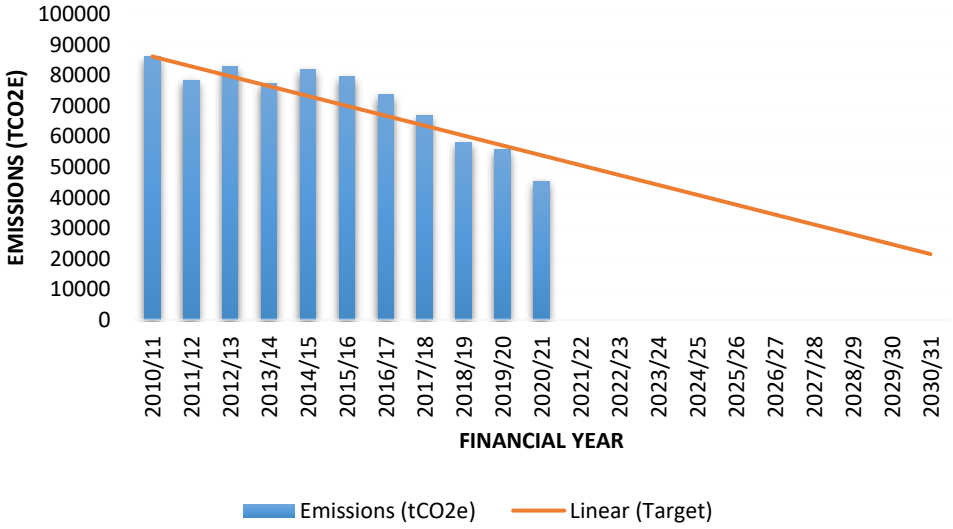
Table 1: Annual Carbon Budget requirements to reach 2030 target (75%)

Financial Year	Actual Emissions Reported (tCO2e)	Carbon Budget Required to reach Target (tCO2e)
2010/11	86,155	86,155
2011/12	78,400	82,924
2012/13	82,782	79,693
2013/14	77,265	76,462
2014/15	81,805	73,231
2015/16	79,537	70,000
2016/17	73,587	66,769
2017/18	66,802	63,538
2018/19	57,992	60,307
2019/20	55,687	57,076
2020/21	45,282	53,845
2021/22	Determined 11/2022	50,614
2022/23	**Determined 11/2023**	**47,383**

Table 2: Future Carbon Budgets to reach 2030 target (75%)

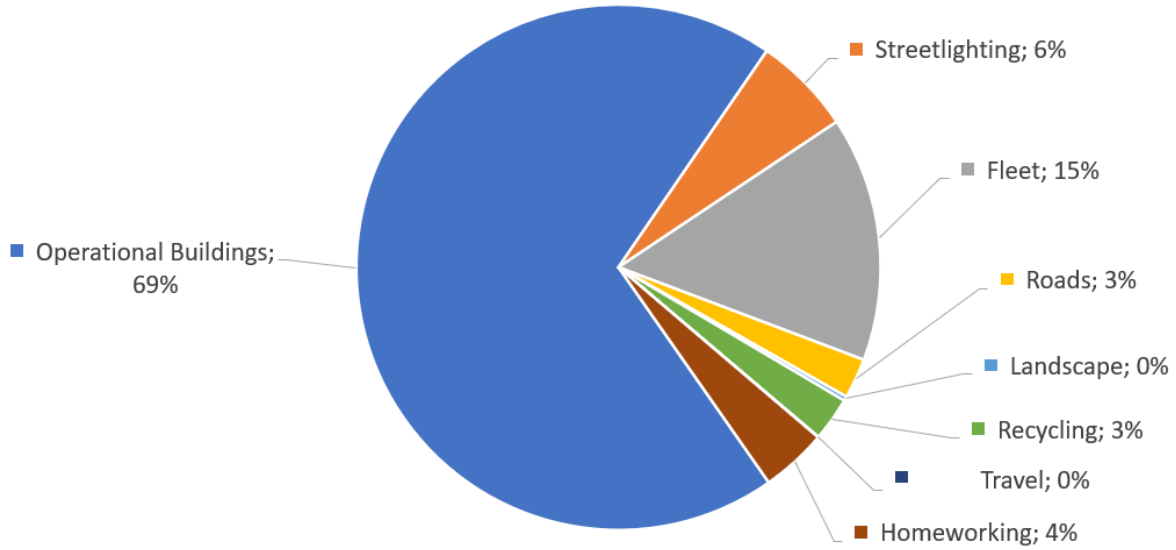
Financial Year	Carbon Budget Required to reach Target (tCO2e)
2023/24	44,152
2024/25	40,921
2025/26	37,690
2026/27	34,459
2027/28	31,228
2028/29	27,997
2029/30	24,766
2030/31	21,539

Figure 1 - Annual progress towards 2030 target (75%):



Appendix 1

Figure 2 - Breakdown of Council's Carbon Footprint in 2020/21 of 45,282 tCO2e



Appendix 2: Carbon Budget 2022 - 2023

Aberdeenshire COUNCIL

	Proposed Identified CO2e Savings (tonnes) 2022/23
BUSINESS SERVICES	
LED Lighting	207
EC Fan	13
Pipework insulation	37
Solar PV	62
BMS	27
Business Services Total	**346**
ENVIRONMENT & INFRASTRUCTURE SERVICES	
Introduce/trial more electric landscaping equipment	TBD
Roads Resurfacing – Warm Mix	220
Energy from Waste	98
LED street lighting	228
Warp-It	3
Environment & Infrastructure Services Total	**549**
EDUCATION AND CHILDREN SERVICE	
Energy Sparks	34
Improved Recycling/Composting	16
Education & Children Services Total	**50**
HEALTH & SOCIAL CARE PARTNERSHIP	
Reduction in business miles	TBD
Resources and Circular Economy Frameworks	TBD
Health & Social Care Partnership Total	**TBD**
Grid Decarbonisation	**500**
Total Reductions Identified (tCO2e)	**1445**

*TBD = Data to be determined for tCO2e savings

Appendix 3: Carbon Budget 2022-2023 Identified Costs and Financial Budget Lines

Table 1: Carbon Budget 2022-2023 Indicative Costs and Financial Budget Lines from initial study work

The details in this table are subject to further consideration by officers but give an indication of the types of interventions being developed, the potential carbon reduction and the scale of investment required.

Interventions	**Asset name**	**Carbon saving (tCO2e)**	**Capital expenditure (£)**	**Annual cost saving (£)**	**Budget**	**Budget line**
LED Lighting	Banff Academy & Banff Swimming Pool	35	134,893	21,687	Capital	Carbon reduction
EC Fan	Banff Academy & Banff Swimming Pool (Deveron Centre)	9	9,598	5,827	Capital	Carbon reduction
LED Lighting	Mackie Academy	53	213,126	33,311	Capital	Carbon reduction
Pipework insulation	Mackie Academy	4	7,371	586	Capital	Carbon reduction
Solar PV	Mackie Academy	27	176,956	16,859	Capital	Carbon reduction
LED Lighting	Fraserburgh Academy	18	98,545	11,129	Capital	Carbon reduction
BMS	Fraserburgh Academy	17	110,646	5,022	Capital	Carbon reduction
EC fan	Fraserburgh Academy	1	14,598	822	Capital	Carbon reduction
Pipework insulation	Fraserburgh Academy	8	15,473	1,219	Capital	Carbon reduction
Solar PV	Fraserburgh Academy	19	126,455	11,603	Capital	Carbon reduction
LED Lighting	Mintlaw Academy	35	108,964	21,622	Capital	Carbon reduction

Appendix 3: Carbon Budget 2022-2023 Identified Costs and Financial Budget Lines

Interventions	Asset name	Carbon saving (tCO2e)	Capital expenditure (£)	Annual cost saving (£)	Budget	Budget line
EC Fan	Mintlaw Academy	2	9,598	1,500	Capital	Carbon reduction
Pipework insulation	Mintlaw Academy	4	8,961	703	Capital	Carbon reduction
Solar PV	Mintlaw Academy	16	102,265	9,701	Capital	Carbon reduction
LED Lighting	The Gordon Schools	17	89,964	10,640	Capital	Carbon reduction
Pipework insulation	The Gordon Schools	9	17,736	1,407	Capital	Carbon reduction
LED Lighting	Westhill Academy	25	98,814	15,450	Capital	Carbon reduction
Pipework insulation	Westhill Academy	2	4,558	352	Capital	Carbon reduction
LED Lighting	Turriff Academy	13	75,886	7,924	Capital	Carbon reduction
BMS	Turriff Academy	10	12,906	2,663	Capital	Carbon reduction
Pipework insulation	Turriff Academy	1	1,469	117	Capital	Carbon reduction
LED Lighting	Stonehaven Leisure Centre	5	13,646	2,817	Capital	Carbon reduction
Pipework insulation	Stonehaven Leisure Centre	2	4,524	352	Capital	Carbon reduction
LED Lighting	Strathburn Primary School	5	17,604	3,101	Capital	Carbon reduction
Pipework insulation	Strathburn Primary School	6	12,187	938	Capital	Carbon reduction

Appendix 3: Carbon Budget 2022-2023 Identified Costs and Financial Budget Lines

Interventions	**Asset name**	**Carbon saving (tCO2e)**	**Capital expenditure (£)**	**Annual cost saving (£)**	**Budget**	**Budget line**
EC Fan	Arduthie Primary School	1	6,131	202	Capital	Carbon reduction
LED Lighting	Kemnay Primary School	1	3,236	374	Capital	Carbon reduction
Pipework insulation	Kemnay Primary School	1	2,999	234	Capital	Carbon reduction
Warp-it	Aberdeenshire Council	3	3,912	0	Reserve	Renewable Energy Reserve
Recycling - Compost	Schools still to be identified	16	TBD	TBD	Revenue	*waste E&CS
Energy Sparks	30 pilot schools still to be identified for initial free trial	34	0	TBD	Revenue	*TBD - E&CS for future costs
Road resurfacing		220	0	0	Revenue	Roads Maintenance
Energy from waste		98	TBD	TBD	Capital/Revenue	EfW/Waste disposal
LED Street Lighting		228	800,000	117,629	Capital	Street lighting
Grid decarbonisation		500	0	0	NA	NA
Total		**1,445**	**2,303,021**	**305,791**		

Table 2: Other opportunities identified by services to be assessed in 2022/23 for future Carbon Budgets

Interventions	**Carbon saving (tCO2e)**	**Estimated Expenditure (£)**
General waste reduction and increased recycling on school sites	89	1,230,437
Formal reuse hubs for schools, offices etc. (e.g. furniture, science equipment)	TBD	TBD
Formal reuse hubs for health and social care partnerships	TBD	TBD
LED lights - Waste management & recycling centres	TBD	TBD
LED lights- sports centres & parks	TBD	TBD

Table 3: Abbreviations/Acronyms

BMS	Building Management System
EC	Electronically Commutated
EfW	Energy from Waste
LED	Light-Emitting Diode
NA	Not Applicable
PV	Photovoltaic
TBD	To Be Determined

The Need for and Aim of Site Feasibility Assessments and Studies

Site feasibility studies can provide the information required to support the development of future Carbon Budgets and the associated investment that will be required to meet the Council's emission reduction targets. Information from previous audits can be included and needs to be undertaken in conjunction with the Non-Domestic Energy Efficiency Framework (NDEEF) that the Energy Management Team is currently working with.

1. Aim of Feasibility Studies

1.1 Undertake Site Surveys that are sufficiently detailed to support development of carbon budgets.

1.2 Support the development of cost plan.

1.3 Include Fabric First/Energy Efficiency/Operational Energy/Behaviour Change and Heat Decarbonisation projects.

2. Prioritise Sites

2.1 Prioritise sites based on heat decarbonisation Route Map and collaboration with the Energy Management team.

2.2 Sites with highest carbon savings/off-grid sites/site clusters to optimise process.

2.3 Work with the Energy Management team to choose representative 'typical' buildings across the categories agreed to inform the most cost effective and efficient manner to deliver future works.

3. Approach

3.1 Develop an approach that provides sufficient technical and cost information for decision making including procurement.

3.2 Detailed site survey covering fabric, insulation, heating systems, lighting systems and operational processes.

3.3 Undertaken a 'whole building approach' combined with heat loss calculations (using Energy Performance Certificates (EPCs) or a suitable spreadsheet for heat loss calculations) to support the assessment of carbon reduction measures – such as the need for fabric improvements as part of a feasibility of air source heat pump (ASHP) or ground source heat pump (GSHP) opportunities.

3.4 Review technical opportunities and barriers based on existing condition and systems.

3.5 Information collected to support cost assessment.

3.6 Pilot studies will include key suppliers (ASHP/Lighting) to confirm costs and technical considerations for Aberdeenshire Council.

Estate feasibility assessments required to develop the 2023 – 2025 pipeline of investment grade projects

4 Likely Coverage

4.1 Fabric improvements (roof, wall, windows).

4.2 Internal and external lighting and lighting controls.

4.3 Decarbonisation of heat – heat pumps, hydrogen biomass (and thermal readiness) including heat loss calculations (see below).

4.4 Hot water, ventilations and cooling (although likely to be minimal).

4.5 Renewables.

4.6 Equipment – e.g. school kitchens.

4.7 Metering and building controls.

4.8 Operational energy behaviour change.

5 Heat Decarbonisation Assessment

5.1 Options for heat decarbonisation to be explored based on the Aberdeenshire Council Heat Decarbonisation Route Map and Heat Decarbonisation Decision Trees (including Ground/Air source heat pump Ready Assessment) alongside the Energy Management team Fuel Choice Assessment. This assessment will include:

5.1.1 Review potential to connect to existing or future local heat networks.

5.1.2 Assessment of heat supply and demand including heat loss calculation showing the heat loss (EPC or suitable spreadsheet for heat loss calculations) to understand heating demand of the building before and after proposed energy reduction measures.

5.1.3 Determine need for fabric improvements for heat decarbonisation opportunities.

5.1.4 Review feasibility of installation process including space, existing distribution system and flow and return temperatures of the heating system and controls required.

5.1.5 Review any enabling works required such as electrical infrastructure upgrade or distribution systems upgrade

6 Outputs

6.1 Audit Report:

6.1.1 Review of historical energy data and trends.

6.1.2 Analysis of energy data and heat loss calculations (EPC of suitable calculations).

6.1.3 Review of existing fabric, infrastructure, building services and operational processes.

6.1.4 Assessment of decarbonisation opportunities, costs, savings, and technical feasibility.

6.1.5 Business cases for proposed decarbonisation measures.

6.1.6 Prioritised fabric, energy efficiency, renewable energy generation and heat decarbonisation opportunities.

7 Estimated costs for feasibility assessment of the top 30 sites

7.1 Approximately £7.5 - £15k per site depending on the size of the site and complexity.

7.2 The exact cost is depending on the number of sites Property & Facilities Management team would like to get investment grade ready for procurement for 2023/24 and 2024/25. We are currently speaking to this Service to confirm the number of studies.

***The cost for the 2022/23 carbon budget could be around £250k - 300k.**

Other studies we would recommend to support the future carbon budgets and further refine costs and revenue savings

8 Measure specific in-depth assessment:

8.1 Recommend additional in depth analysis/pilots of specific opportunities.

8.2 Demonstrate improvement with EPC models.

8.3 Inform wider site-specific studies.

8.4 Initial assessment could be air source heat pumps.

8.4.1 Supply chain readiness and skills gap.

8.4.2 Fabric suitability.

8.4.3 Technology integration.

8.4.4 Costs and implementation.

8.4.5 Operational review.

8.5 Results of these studies will inform the feasibility assessments.

8.6 Future studies for building controls, hydrogen heating/vehicles considered.

9 Regional Studies

9.1 In light of recent storms and impact of climate change assessment on the risks of the increasing electrification of heat will be undertaken

9.2 Economic Development, skills and job creation opportunities of retrofit and heat decarbonisation programme

10. Additional costs for in-depth assessment:

10.1 Additional costs of these studies would need to be finalised but around £25k per pilot study.

10.2 We estimate in 2022/23 a further 6 - 8 studies would be required to support the future carbon budget and further refine costs and revenue savings.

***This would add a further £150 - £200k to the 2022/23 budget.**

Total for Feasibility Work identified in its entirety above is between £400,000 - £500,000

1 Risks

1.1 A number of risks have been identified when developing the proposed Carbon Budget. These are highlighted below:

1) Calculations of emission reductions are a best estimate with the data available therefore all calculations must only be considered as an estimate. Any changes in consumption or emissions data will be monitored and reported on at the appropriate time.

2) In some cases, full CO2e savings of actions listed will not be fully accounted for until the following financial year. Part year savings may need to be considered if there are delays in projects being put into action. This would mean that projected savings would be less than originally calculated and therefore action elsewhere may be required to make up the difference. This can be captured and considered during the quarterly update process with appropriate action taken if needed.

3) There have been significant impacts due to Brexit and Covid-19 which have delayed role out of projects. These impacts are likely to still be of concern in 2022 - 2023 and include: Paused projects due to short staffing and the prioritisation of Covid related work; Unusual demands on energy consumption across the estate altering typical and known patterns of usage; Increase in general waste due to additional cleaning needs; Issues with materials and contractor supply chain.

4) Many climate change mitigation actions require behaviour change by staff and members across the organisation. To be successful this will require both top down and bottom up visible action and support across all services. This can be monitored through regular updates to Strategic Leadership Team and service team meetings.

5) Funding through the Renewable Energy Reserve has motivated services to consider opportunities for investing in projects which will reduce their carbon emissions. All monies within this fund are now nearly allocated to projects so a new funding stream or ways of seeking funding opportunities must be taken on board for continued progress in investment in climate change mitigation and adaptation.

6) Changes in climate change mitigation and adaptation legislation will need to be monitored and targets adjusted to meet any additional statutory requirements. This will continue to be monitored by the Sustainability & Climate Change team and reported on to the Sustainability Committee. An example of this is the latest target of zero direct emissions from Public Sector buildings by 2038.

7) There is a political risk associated with not meeting the Council's agreed emissions reduction target. The Carbon Budget process of Aberdeenshire Council is recognised as best practice by public sector organisations and should continue to be the process used for supporting progress towards the Council's reduction target. Reporting on emissions is a mandatory

requirement through the Public Bodies Climate Change Duties and therefore allows the Council to monitor and assess its progress on an annual basis. This reporting is monitored by the Sustainability Committee.

8) Changes to regulations, introduction of carbon taxes etc. are ways in which there may be a future added cost to not working towards reducing the Council's emissions now. Similarly, not considering impacts of future climate predictions for the region when retrofitting and building new could mean dealing with reactive costs instead of investment being in place already.

9) The development of the Route Map 2030 and Toolkit for generating a Marginal Abatement Cost (MAC) curve will support the need for the Carbon Budget to become better integrated with the financial budgets. This will provide members with a clearer link in demonstrating the costs and savings being met through carbon saving initiatives. This will be an important step in assisting the Council to make decisions that allow it to meet its emission reduction targets in the most cost effective way. This requires cross service working to ensure savings are captured correctly and will remain an ongoing process.

10) Reaching the required reduction target of 75% by 2030 and net zero by 2045 will require innovation and investment as well as a desire within leadership and across the organisation to continue to progress towards this new ambitious target. There is a reputational risk if this is not achieved and therefore progress will continue to be monitored by the Sustainability & Climate Change team and reported on to the Sustainability Committee for appropriate action.

1.2 All of these risks and others within the budget will be monitored and managed in order to identify any issues and address these at an early stage.

2 Budget Pressures and Significant Developments

2.1 Significant budget pressures and developments across services and the estate will have implications on the Council's Carbon Budget:

1) Overall budget pressures across Aberdeenshire Council mean that projects which will reduce emissions may not be considered in order for the Council to reach a balanced budget. Budget reductions across services will also impact resources required for potential projects.

2) New schools now online – they are more energy efficient but larger community campuses. Extended times of operation have therefore increased energy use. This is in line with expectations of the business case for these builds.

3) The 1140 hours entitlement for childcare will have an impact on emission reduction targets due to increase energy use and waste.

4) Further new developments, policies, procedures and strategies will need to consider climate change mitigation and adaptation in order to support progress in action across the Council. This will require an overall fundamental shift as an organisation to current practices.

5) Future adoption of development sites which include old technology street lighting will need to be updated to LED when added to the Council's portfolio.

6) In presenting any savings which we anticipate making by reducing energy consumption we will need to account for any increase in the price of energy and baseline against the original and future budget for energy costs. For example we have made real term savings through bringing in LED for our street lighting network but we are also seeing upward pressure on the cost of the electricity we use.

2.2 All of these budget pressures and developments will be monitored in order to identify any issues and address these where possible at an early stage.

Aberdeenshire Council

Integrated Impact Assessment

Carbon Budget 2022-23

Assessment ID	IIA-000251
Lead Author	Claudia Cowie
Additional Authors	Joel Evans
Service Reviewers	Ewan Wallace
Subject Matter Experts	Claudia Cowie, Lynne Gravener, Christine McLennan
Approved By	Ewan Wallace
Approved On	Thursday February 10, 2022
Publication Date	Friday February 11, 2022

1. Overview

This document has been generated from information entered into the Integrated Impact Assessment system.

This report contains Aberdeenshire Council's Carbon Budget for 2022 – 2023 and identified projects which will reduce the Council's emissions by a further 1626 tonnes Carbon Dioxide Equivalent (tCO2e) in 2022-2023. Projects include LED replacements, solar PV, pipe insulation, and improving reuse and recycling. The report highlights success to date by Aberdeenshire Council in reducing its internal emissions annually and further identifies a need for feasibility work across 27 Council operational buildings in 2022-2023 to support identifying opportunities and costs for future carbon budgets.

During screening 7 of 10 questions indicated that detailed assessments were required, the screening questions and their answers are listed in the next section. This led to 3 out of 5 detailed impact assessments being completed. The assessments required are:

- Childrens' Rights and Wellbeing
- Equalities and Fairer Scotland Duty
- Sustainability and Climate Change

In total there are 15 positive impacts as part of this activity. There are 0 negative impacts, all impacts have been mitigated.

A detailed action plan with 0 points has been provided.

This assessment has been approved by ewan.wallace@aberdeenshire.gov.uk.

The remainder of this document sets out the details of all completed impact assessments.

2. Screening

Could your activity / proposal / policy cause an impact in one (or more) of the identified town centres?	No
Would this activity / proposal / policy have consequences for the health and wellbeing of the population in the affected communities?	No
Does the activity / proposal / policy have the potential to affect greenhouse gas emissions (CO_2e) in the Council or community and / or the procurement, use or disposal of physical resources?	Yes
Does the activity / proposal / policy have the potential to affect the resilience to extreme weather events and/or a changing climate of Aberdeenshire Council or community?	Yes
Does the activity / proposal / policy have the potential to affect the environment, wildlife or biodiversity?	Yes
Does the activity / proposal / policy have an impact on people and / or groups with protected characteristics?	Yes
Is this activity / proposal / policy of strategic importance for the council?	Yes
Does this activity / proposal / policy reduce inequality of outcome?	No
Does this activity / proposal / policy have an impact on children / young people's rights?	Yes
Does this activity / proposal / policy have an impact on children / young people's wellbeing?	Yes

3. Impact Assessments

Children's Rights and Wellbeing	No Negative Impacts Identified
Climate Change and Sustainability	No Negative Impacts Identified
Equalities and Fairer Scotland Duty	No Negative Impacts Identified
Health Inequalities	Not Required
Town Centre's First	Not Required

4. Childrens' Rights and Wellbeing Impact Assessment

4.1. Wellbeing Indicators

Indicator	Positive	Neutral	Negative	Unknown
Safe		Yes		
Healthy		Yes		
Achieving	Yes			
Nurtured		Yes		
Active		Yes		
Respected	Yes			
Responsible	Yes			
Included	Yes			

4.2. Rights Indicators

UNCRC Indicators upheld by this activity / proposal / policy	Article 3 - Best interests of the child

4.3. Positive Impacts

Impact Area	Impact
Achieving	The Carbon Budget initiative Energy Sparks is a free trial for at least a year for 30 of our schools. Pupils within schools which are signed up to Energy Sparks will become knowledgeable in energy saving initiatives and be able to share these at home and in the community. Pupils will learn new skills and can have an opportunity to lead on different energy saving initiatives as well as work collaboratively across the school and other schools on the programme. They can feel empowered to make a difference to emissions and therefore their impact on climate change. There is curriculum linked energy education and saving activities and energy related lesson plans and downloadable resources. There are exciting activities for eco-teams to follow and opportunities for schools to compete with other local schools to see who can save the most energy.

Impact Area	Impact
Included	The Carbon Budget initiative Energy Sparks is a free trial for at least a year for 30 of our schools. Pupils within schools which are signed up to Energy Sparks will become knowledgeable in energy saving initiatives and be able to share these at home and in the community. Pupils will learn new skills and can have an opportunity to lead on different energy saving initiatives as well as work collaboratively across the school and other schools on the programme. They can feel empowered to make a difference to emissions and therefore their impact on climate change. There is curriculum linked energy education and saving activities and energy related lesson plans and downloadable resources. There are exciting activities for eco-teams to follow and opportunities for schools to compete with other local schools to see who can save the most energy.
Responsible	The Carbon Budget initiative Energy Sparks is a free trial for at least a year for 30 of our schools. Pupils within schools which are signed up to Energy Sparks will become knowledgeable in energy saving initiatives and be able to share these at home and in the community. Pupils will learn new skills and can have an opportunity to lead on different energy saving initiatives as well as work collaboratively across the school and other schools on the programme. They can feel empowered to make a difference to emissions and therefore their impact on climate change. There is curriculum linked energy education and saving activities and energy related lesson plans and downloadable resources. There are exciting activities for eco-teams to follow and opportunities for schools to compete with other local schools to see who can save the most energy.
Respected	The Carbon Budget initiative Energy Sparks is a free trial for at least a year for 30 of our schools. Pupils within schools which are signed up to Energy Sparks will become knowledgeable in energy saving initiatives and be able to share these at home and in the community. Pupils will learn new skills and can have an opportunity to lead on different energy saving initiatives as well as work collaboratively across the school and other schools on the programme. They can feel empowered to make a difference to emissions and therefore their impact on climate change. There is curriculum linked energy education and saving activities and energy related lesson plans and downloadable resources. There are exciting activities for eco-teams to follow and opportunities for schools to compete with other local schools to see who can save the most energy.

4.4. Evidence

Type	Source	It says?	It Means?

Type	Source	It says?	It Means?
Other Evidence	https://energysparks.uk/	Energy Sparks is an online, school-specific energy analysis tool & energy education programme that helps schools become more energy efficient and fight climate change.	Schools can save money and the children can become more aware of the ways that they can help to reduce energy use.
External Consultation	https://www.childrensparliament.org.uk/wp-content/uploads/Childrens-Parliament_Climate_Assembly_2021.pdf	This report tells explains how children have been involved in Scotland's Climate Assembly, and what children across Scotland think needs to happen in Scotland to tackle the climate emergency.	The climate emergency is a human rights issue. Any plan, solution or action to tackle climate emergency in Scotland must respond to the needs, and rights, of everyone living here, and this means listening to the diversity of views and lived experiences of Scotland's citizens. This includes children.
Internal Consultation	Officers across different services	A number of different services within Business, Infrastructure, Education and Children, and the Health and Social Care Partnership have provided data and information for this report.	Gathered many lists of project ideas some of which have been included as actions for 2022/23. Others will be worked on over the year to provide an action plan for mitigation and adaptation work including the development of the Route Map to 2030 and Toolkit.
Internal Data	Data from across different services on on consumption of energy and waste.	Internal energy, transport and waste consumption data has been used to determine the carbon emissions of the Council. Data has come from Property and Facilities, Transportation, Roads, Landscape and Waste Services, HR&OD.	The data has been used to determine the Council's total annual emissions up to 2020/21.

4.5. Information Gaps

Climate Change information and data changes frequently as the science and research improves. There are likely gaps but we use all the information provided to us by the Scottish Government alongside all other Public Sector bodies.

4.6. Measures to fill Information Gaps

Measure	Timescale
We will continue to consult on documents put forward by the Scottish Government on the expectations of the Public Sector.	Ongoing

4.7. Accounting for the Views of Children and Young People

The report produced by the Children's Parliament and Scotland's Climate Assembly (2020-21) was considered when pulling together the Carbon Budget 2022-2023.

4.8. Promoting the Wellbeing of Children and Young People

Reducing emissions from actions within the Council will support a cleaner, safer environment for children / young people and therefore improve their wellbeing. For example, reducing emissions will positively impact air quality, improve biodiversity and supports a future where climate change may not be as impactful as predicted if we do not contribute to reducing global emissions. In addition, children / young people who engage in ways to reduce emissions may find a new interest and therefore could impact their wellbeing by providing exciting opportunities for future development, employment, learning opportunities etc.

4.9. Upholding Children and Young People's Rights

Climate Change is a human rights issue. Any plan, solution or action to tackle climate change in Scotland must respond to the needs, and rights, of everyone living here. Actions in the Carbon Budget 2022-2023 should also benefit the children the Council look after through its different services. Many of the actions in the carbon budget will do this including the energy efficiency measures which will be completed in schools, the Energy Sparks programme and future engagement within the Council's Education and Children Services new Sustainability and Climate Change Strategy.

4.10. Overall Outcome

No Negative Impacts Identified.

Reducing emissions from actions within the Council will support a cleaner, safer environment for children / young people as well as provide exciting opportunities for development and learning.

5. Equalities and Fairer Scotland Duty Impact Assessment

5.1. Protected Groups

Indicator	Positive	Neutral	Negative	Unknown
Age (Younger)		Yes		
Age (Older)		Yes		
Disability		Yes		
Race		Yes		
Religion or Belief		Yes		
Sex		Yes		
Pregnancy and Maternity		Yes		
Sexual Orientation		Yes		
Gender Reassignment		Yes		
Marriage or Civil Partnership		Yes		

5.2. Socio-economic Groups

Indicator	Positive	Neutral	Negative	Unknown
Low income		Yes		
Low wealth		Yes		
Material deprivation		Yes		
Area deprivation	Yes			
Socioeconomic background		Yes		

5.3. Positive Impacts

Impact Area	Impact
Area deprivation	Improving the Council's operational non-domestic building stock to make it more energy efficient can improve the quality of the building and therefore improve the conditions that people who come into contact with our buildings face (internally and externally). This includes the Council's schools, offices, leisure centres etc. Future proofing the Council's estate will therefore support improving area deprivation. In addition to this, the Council's contribution to reducing emissions will also support other social and environmental impacts on area deprivation such as improving air quality and biodiversity.

5.4. Evidence

Type	Source	It says?	It Means?

Type	Source	It says?	It Means?
External Consultation	https://www.gov.scot/publications/transition-commission-national-mission-fairer-greener-scotland/documents/	The report sets out the view of the The Just Transition Commission on key opportunities and challenges for Scotland and recommends practical steps to achieving a just transition.	Fairness and climate ambition must go hand in hand. The pathway to net-zero emissions may be ambitious, but it can be a unique opportunity to build a Scotland that is healthier, fairer and greener.
External Consultation	https://www.climateassembly.scot/full-report	Scotland's Climate Assembly is made up of over 100 citizens from all walks of life tasked with examining expert evidence and agreeing recommendations for tackling the climate emergency in a fair and effective way. This report lays out Scotland's Climate Assembly's recommendations for Scottish society to tackle the climate emergency. It begins with a Statement of Ambition, calling for radical and decisive action, then details 16 goals and 81 recommendations.	It means that Scotland's Public Sector and therefore Aberdeenshire Council have a duty to consider the recommendations put forward by the Assembly and determine ways in which it can support those of which it has direct influence over via the Council's Carbon Budget process.
Internal Consultation	Officers across different services	A number of different services within Business, Infrastructure, Education and Children, and the Health and Social Care Partnership have provided data and information for this report.	Gathered many lists of project ideas some of which have been included as actions for 2022/23. Others will be worked on over the year to provide an action plan for mitigation and adaptation work including the development of the Route Map to 2030 and Toolkit.
Internal Data	Data from across different services on on consumption of energy and waste.	Internal energy, transport and waste consumption data has been used to determine the carbon emissions of the Council. Data has come from Property and Facilities, Transportation, Roads, Landscape and Waste Services, HR&OD.	The data has been used to determine the Council's total annual emissions up to 2020/21.

5.5. Information Gaps

Climate Change information and data changes frequently as the science and research improves. There are likely gaps but we use all the information provided to us by the Scottish Government

alongside all other Public Sector bodies.

5.6. Measures to fill Information Gaps

Measure	Timescale
We will continue to consult on documents put forward by the Scottish Government on the expectations of the Public Sector.	Ongoing

5.7. Engagement with affected groups

Consultation for the production of the Carbon Budget 2022-2023 has been to review Scotland's Climate Assembly and Children's Parliament reports. These reports represent a range of people who are broadly representative of a population.

5.8. Ensuring engagement with protected groups

There are no impacts identified on those with protected characteristics.

5.9. Evidence of engagement

There has not been engagement to evidence other than the consultation of the documents mentioned above.

5.10. Overall Outcome

No Negative Impacts Identified.

Action to address and improve climate change mitigation and adaptation performance will benefit all staff and residents of Aberdeenshire.

5.11. Improving Relations

Continuous communication across services within Aberdeenshire Council and Aberdeenshire communities will be required to ensure any impacts are identified, considered and mitigated if feasible as early as possible.

5.12. Opportunities of Equality

It is well understood that Climate Change impacts are likely to affect people disproportionately. Any transition through climate change mitigation and adaptation must always be considered just and socially fair so that everyone can benefit from the opportunities and no one is left suffering the consequences worse than others.

6. Sustainability and Climate Change Impact Assessment

6.1. Emissions and Resources

Indicator	Positive	Neutral	Negative	Unknown
Consumption of energy	Yes			
Energy efficiency	Yes			
Energy source	Yes			
Low carbon transition	Yes			
Consumption of physical resources	Yes			
Waste and circularity	Yes			
Circular economy transition		Yes		
Economic and social transition	Yes			

6.2. Biodiversity and Resilience

Indicator	Positive	Neutral	Negative	Unknown
Quality of environment	Yes			
Quantity of environment		Yes		
Wildlife and biodiversity		Yes		
Infrastructure resilience	Yes			
Council resilience	Yes			
Community resilience		Yes		
Adaptation		Yes		

6.3. Positive Impacts

Impact Area	Impact
Council resilience	By improving energy efficiency and installing renewables such as the solar PVs the Council is already improving its own resilience for future climate change events such as extreme weather events.
Infrastructure resilience	By improving energy efficiency and installing renewables such as the solar PVs the Council is already improving its own infrastructure resilience for future climate change events such as extreme weather events.
Quality of environment	By reducing emissions the Council is supporting other benefits for the environment such as improving air quality in the region.
Consumption of energy	The Carbon Budget report contains a number of projects which will support reducing energy consumption by the organisation. This is through energy efficiency projects as well as projects reducing waste and also reducing energy consumption by the Roads service.

Impact Area	Impact
Energy efficiency	The Carbon Budget report contains a number of projects which will support reducing energy consumption by the organisation. This is through energy efficiency projects as well as projects reducing waste and also reducing energy consumption by the Roads service. Many projects are focused on energy efficiency improvements to the some of the operational non domestic building stock.
Energy source	The carbon budget includes the addition of solar PVs to some of the Council's non-domestic operational buildings will generate renewable energy.
Economic and social transition	The Council is demonstrating leadership in reducing emissions through its carbon budget process and therefore is supporting the low carbon transition in the region. Part of the feasibility work as mentioned in the report will also look at local supply chains and skills gaps for energy efficiency and heat decarbonisation in the region. The Council can then look at opportunities to support the growth of these needs in the region.
Low carbon transition	The Council is demonstrating leadership in reducing emissions through its carbon budget process and therefore is supporting the low carbon transition in the region.
Consumption of physical resources	The continued membership to the WarpIt reuse online platform means the Council can reduce its consumption of physical resources by ensuring items no longer required in one service can be reused in another part of the Council. The platform links the Council to external organisations also so sharing can happen across the region. In addition energy efficiency projects will reduce the Council's consumption of other resources such as fossil fuel.
Waste and circularity	The continued membership to the WarpIt reuse online platform means the Council can reduce its consumption of physical resources by ensuring items no longer required in one service can be reused in another part of the Council. The platform links the Council to external organisations also so sharing can happen across the region. Improving food waste recycling in some of the Council's schools will also reduce waste to landfill and will supply circularity through the contract with Keenans which converts the food waste into soil improver for the region.

6.4. Evidence

Type	Source	It says?	It Means?

Type	Source	It says?	It Means?
Internal Consultation	Officers across different services	A number of different services within Business, Infrastructure, Education and Children, and the Health and Social Care Partnership have provided data and information for this report.	Gathered many lists of project ideas some of which have been included as actions for 2022/23. Others will be worked on over the year to provide an action plan for mitigation and adaptation work including the development of the Route Map to 2030 and Toolkit.
Internal Data	Data from across different services on on consumption of energy and waste.	Internal energy, transport and waste consumption data has been used to determine the carbon emissions of the Council. Data has come from Property and Facilities, Transportation, Roads, Landscape and Waste Services, HR&OD.	The data has been used to determine the Council's total annual emissions up to 2020/21.
External Consultation	https://www.gov.scot/publications/transition-commission-national-mission-fairer-greener-scotland/documents/	The report sets out the view of the The Just Transition Commission on key opportunities and challenges for Scotland and recommends practical steps to achieving a just transition.	Fairness and climate ambition must go hand in hand. The pathway to net-zero emissions may be ambitious, but it can be a unique opportunity to build a Scotland that is healthier, fairer and greener.
External Consultation	https://www.climateassembly.scot/full-report	Scotland's Climate Assembly is made up of over 100 citizens from all walks of life tasked with examining expert evidence and agreeing recommendations for tackling the climate emergency in a fair and effective way. This report lays out Scotland's Climate Assembly's recommendations for Scottish society to tackle the climate emergency. It begins with a Statement of Ambition, calling for radical and decisive action, then details 16 goals and 81 recommendations.	It means that Scotland's Public Sector and therefore Aberdeenshire Council have a duty to consider the recommendations put forward by the Assembly and determine ways in which it can support those of which it has direct influence over via the Council's Carbon Budget process.

Type	Source	It says?	It Means?
Other Evidence	Public Sector Leadership on the Global Climate Emergency	The guidance is in part to support the Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020 which set out additional requirements and expectations for Public Body response to the Climate Emergency.	The document lays out consideration for Public Sector Bodies to embed climate change action across the organisation in order to reduce emissions in line with the National targets. Aberdeenshire Council's Carbon Budget process supports some of these expectations.

6.5. Information Gaps

Climate Change information and data changes frequently as the science and research improves. There are likely gaps but we use all the information provided to us by the Scottish Government alongside all other Public Sector bodies.

6.6. Measures to fill Information Gaps

Measure	Timescale
We will continue to consult on documents put forward by the Scottish Government on the expectations of the Public Sector.	Ongoing

6.7. Overall Outcome

No Negative Impacts Identified.

The Carbon Budget 2022-23 identifies many projects which will support a reduction in the Council's own emissions demonstrating a positive impact towards supporting action on climate change mitigation and adaptation.