

Responding to the Threat of Climate Change in Daventry District

The Report of Daventry District Council's Task Panel on the Climate Emergency

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Preface

Daventry District Council's 'Climate Emergency Task Panel' was formed following a motion passed by the Council, with cross-party support, in May 2019. The decision to create it arose from a long period of growing public and political concern, both in the UK and internationally, that our emissions of 'greenhouse' gases are likely to lead changes in our climate with disastrous consequences for many communities and for our planet's ecosystem on which we depend.

We began our work conscious of the scale of the threat of what is now recognized as a 'climate emergency'. However, during the months in which we have been collecting evidence and considering actions needed to minimise the dangers of climate change, there has hardly been a week without new reports appearing with new predictions on what climate change may bring and new calls for action by governments, local government and individuals.

There are few things that we do that do not cause emissions. In our work we have therefore needed to look widely at how we live, work and travel and at what changes can be made to eliminate, or at least substantially reduce, the emissions that we generate. As a consequence, our report is a relatively long one.

We recognise that the large number of recommendations will require a large amount of Council time, but we are dealing with an emergency and trust that the Council will make sufficient time available at its meeting on 20th February to consider the report in full. To assist the Council in its discussions we hope to arrange a briefing meeting prior to 20th February and will of course be pleased to respond to any questions which Members may want to ask before the meeting.

We ask that the Council:

- Accepts the full report as a broad strategy for responding to climate change;
- Accepts those recommendations which can, and should, be implemented without undue delay and which do not have major cost implications;
- Accepts recommendations which have major cost implications subject to further investigations and costing and asks for progress reports on each to be prepared for consideration at the May Council meeting;
- Engages with other councils in West Northants and with the new unitary authority to ensure that the measures proposed are not jeopardised by re-organisation.

We recognise that what we recommend will have costs (although not on the scale that many other local authorities have already spent on climate change programmes). Although we are aware of the financial constraints on what DDC can do, we believe it is essential that projects to reduce harmful emissions should be given a high priority in DDC's plans.

Our report should not be seen as the end of a process, but as a first step in tackling climate change. Time and resource constraints have not allowed us to explore all issues and options as fully as we would have liked, and we recognise that others may identify additional issues and actions which DDC should consider. We therefore believe that arrangements should be made for the continuation of the work which the Task Panel has started, involving both Members and Officers.

Reducing greenhouse gas emissions within the District is not something that DDC can do on its own – it will require action by residents and by partner organisations. We therefore propose that this report, revised if necessary following the Council’s consideration of it, should be circulated to relevant organisations and concerned residents.

We regard it as a privilege to have had the opportunity to serve on a task panel with a remit of such importance. The task panel has been cross-party in nature, but non-party in its work – whatever differences we may have on other issues, we all share an acute concern for the future of our planet and a determination that DDC sets an example and provides leadership in responding to the threat.

Cllr R Frost
Cllr J Harris
Cllr K Ritchie

THE REPORT IN SUMMARY

In this report we maintain that:

- 1) The climate is changing in a way that threatens the lives of communities around the world: what we face is therefore a Climate Emergency: measures to limit climate change must be taken as a matter of urgency.
- 2) Daventry District Council (DDC) must provide leadership on climate change in the District, both by striving to eliminate its own emissions of greenhouse gases (although only a very small part of the District's total emissions) and by encouraging and supporting residents and businesses to reduce their emissions.
- 3) Although DDC will be abolished at the end of March 2021, that is not a reason for inaction. DDC must work with other W Northants councils to ensure that the measures we propose are adopted by the new unitary authority.
- 4) DDC should declare a Climate Emergency and adopt a Climate Change Strategy which should inform all DDC policies and decisions: DDC's Corporate Strategic Plan should be revised to include specific references to the need to reduce emissions.
- 5) DDC should prepare a Climate Emergency Programme which should contain all actions recommended in this report and appoint a Climate Emergency Programme Manager to lead it.
- 6) Although major reductions in emissions from homes, commerce and transport will only be possible through Government legislation and funding, there is much that DDC can and should do. Our recommendations include:
 - Encouraging residents, organisations and businesses to make changes which will reduce emissions by taking advantage of the funding available;
 - Ensuring that new buildings are as energy efficient as they can be;
 - Helping to prepare the District for the move away from petrol and diesel fueled vehicles.
- 7) DDC should plant, and promote the planting of, more trees and significant areas of woodland to absorb CO2 emissions.
- 8) Many emissions arise from people's lifestyle choices. DDC must therefore engage with residents on Climate Emergency issues, making them aware of the threat and encouraging them to act in a way that reduces it. Changes to reduce emissions, however, must be presented not just as an imposition but as a way of improving the environment, saving costs, bringing health benefits and offering new economic opportunities.
- 9) In its efforts to reduce emissions, DDC should work closely with partners, including parish councils and Daventry Town Council, voluntary organisations, businesses, schools and colleges.
- 10) DDC should facilitate the development of an independent network of partners and concerned residents whose brief is to ²²monitor progress in responding to climate change, spread information and contribute ideas.
- 11) DDC should endeavour to reduce emissions from its buildings and operations by around 80% (from 2019 levels) by 2030. Consultants should be employed to advise on the buildings can be made more energy efficient.

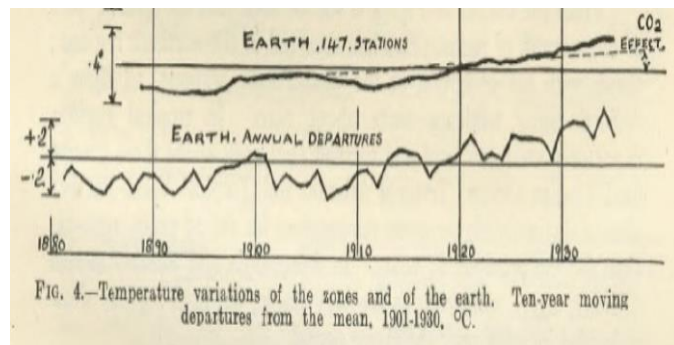
- 12) DDC should cease to invest in banks and financial institutions which support, through lending or investment, companies engaged in the extraction, processing and distribution of fossil fuels. Appropriate criteria should be developed to guide investment decisions.
- 13) DDC should explore ways of reducing the amount of paper consumed by Council business and the distances that Members travel.
- 14) The Council should establish a Climate Emergency Working Group to carry forwards the work of the Task Panel.
- 15) This report, revised following the Council's consideration of it and presented in an attractive manner, should be produced, circulated to partners and made available to interested residents. A shorter pamphlet should be prepared for wider distribution through libraries, schools and colleges, etc.

Our detailed recommendations are summarised in section 8 of the report.

1. INTRODUCTION

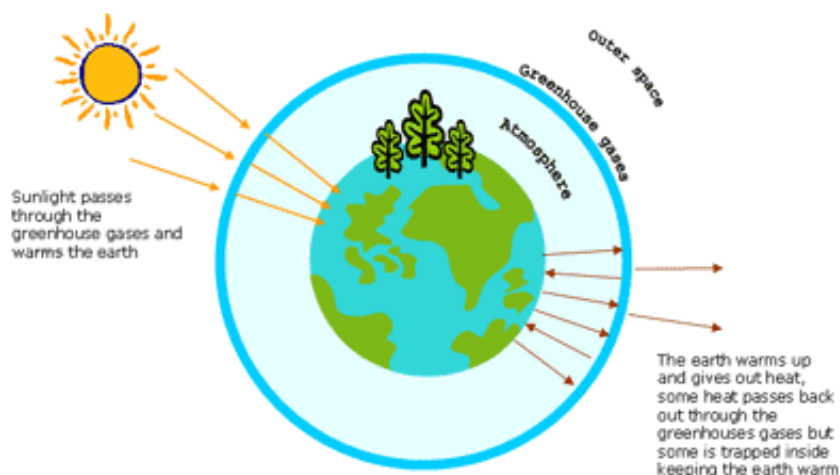
1.1 The Climate Emergency

Over the past few months there is no denying that the term 'Climate Emergency' has been mentioned a lot not only in the main stream media but also at all stages of government. To understand climate change it is important to trace the history of the science behind it, understand how we got to the situation that we're in and take a look at what could happen to the world should no policies be put in place to help reverse climate change.



Evidence of global warming has been around since 1938 when it was first observed by Guy Callender. He compiled measurements of the earth's average temperature and correlated them against measurements for the amount of carbon dioxide (CO₂) in the atmosphere. He proposed that the rise in the earth's temperature was down to the rise in CO₂ levels in the atmosphere which nowadays we know is true. Since this discovery, CO₂ emissions have risen by 45% to the highest amount in 3 million years. This could have catastrophic effects for the human race.

This is because when CO₂ is released, it gets trapped in the upper layer of the earth's atmosphere and thus stops heat escaping.



Sunlight is able to pass through the greenhouse gases to warm the earth which is a good thing in moderation so we are able to grow crops and survive. The problem comes when the rays reflect off the earth's surface and instead of escaping the earth's atmosphere, they get trapped in a layer of greenhouse gases (such as CO₂) and get reflected back on to the earth's surface which leads to global temperatures rising.

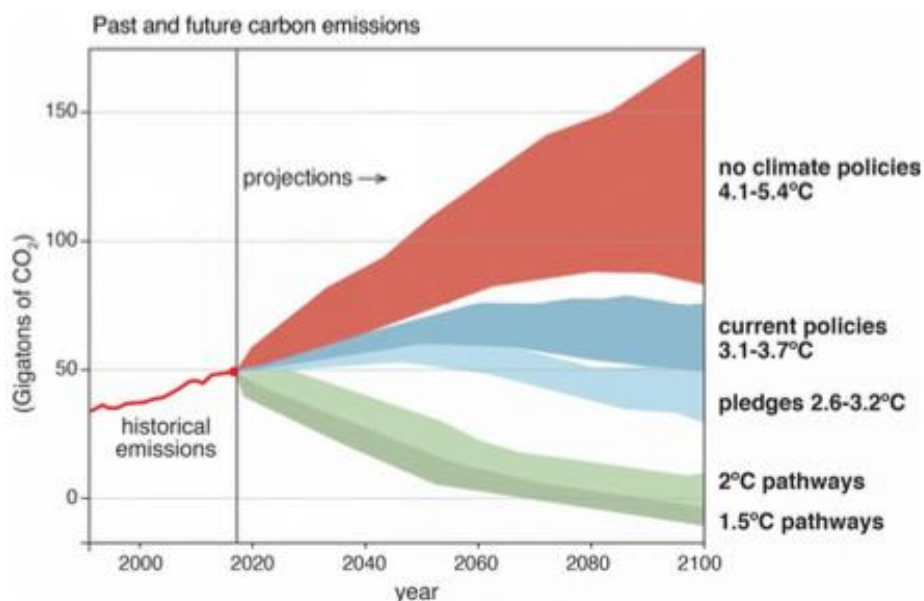
A dramatic rise in global temperatures over the past few decades has led to the polar ice cap melting at a faster rate than ever before. Some estimates say there will potentially be no summer arctic sea ice left by 2050. The knock on effect of arctic ice melting is that sea levels will rise. With many islands in Asia lying just over if not on sea level, rising sea levels could see them disappear.

Similarly, the loss of arctic sea ice is what is known as a feedback loop. Due to there being less arctic sea ice, there are fewer rays from the sun being reflected back up in to the atmosphere and instead these rays are being absorbed in to the sea and further warming it which leads to more ice melting. In addition to this, as more ice melts, more methane (a greenhouse gas) that was trapped in the ice gets released in to the atmosphere, further warming the earth.

The implications of climate change for humans include food shortages, water shortages and habitat loss among many more. Although these may not be happening in Daventry District as of yet, this does not mean they are not happening elsewhere. Many countries in Africa have been experiencing famine and droughts over the past few years as a result of climate change. These include Somalia where in 2017, over half of the country's population were left with food and water shortages leading to the death of many Somalis.

Many people tend to believe that such events could never happen in places like the UK and Daventry however they are wrong. The summer of 2019 was one of the hottest on record and all studies indicate that the hot summer we experienced this year will become much more common with top temperatures rising even further. This will lead to water shortages and potentially the deaths of millions of people in the UK unless urgent action is taken now.

On 12th December 2015, The Paris Agreement was drafted and has subsequently had 195 signatories. The main agreement was to pursue efforts to limit the increase of global average temperature to 1.5 degrees above pre-industrial levels. We are not on target to meet this, however it is not too late.



The IPCC's special report on global warming of 1.5 degrees noted that the target was possible but it would require "rapid, far-reaching and unprecedented changes in all aspects of society." If action isn't taken now, extreme rainfall events will become more frequent and more cold snaps like the "Beast from the East" will take place. Actions can still be taken, but they require the backing of politicians at all levels of government to secure a safe future for many generations to come - not only in Daventry District, but across the world.

Councils up and down the UK are taking action right now and currently over 200 councils have declared a Climate Emergency, many of them also setting a target of net-zero emissions of 2030.

However, these declarations are meaningless unless they are supported by action plans to reach these targets.

Councils such as Leicester, Camden and Oxford are leading the way with this work. Leicester City Council has introduced electric buses and taxis on to their streets and have also increased the number of people cycling in their city. The council there is aiming to be carbon neutral by 2025 as they see it their duty to lead by example.

Camden Council and Oxford City Council have both opted for Citizens' Assemblies on the Climate Crisis. This means they are taking it back to the people to decide what policies would work best in their area to help counter climate change. They are both working with charities and environmental groups such as Extinction Rebellion and Friends of the Earth to help set up these peoples' assemblies.

Although UK Government has been the first country in the world to set a target of 2050 for net-zero carbon emissions, a lot of the evidence says that this is simply not enough. Moreover, even the Government's own advisors have expressed concern that much more needs to be done and planned if the target is to be met.

The UN's special report of global warming of 1.5 degrees set a time of 12 years to act on the climate crisis. 12 years may seem like a long time but it will require complete economic overhaul from every country on the planet. Daventry District Council may not have the tools to provide this economic overhaul but it most definitely can play an important role in safeguarding the future of its own area and the people within it. With enough small changes from the top, the task gets much easier. There's no hiding from the fact that the changes that will need to be implemented will be costly but it's absolutely necessary that they are implemented now as the longer it is put off, the more expensive the transformation will be as it will have to come at a faster pace.

1.2 Planning Daventry District Council's response

1.2.1 The Climate Emergency Task Panel

At a meeting in May 2019, Daventry District Council (DDC) decided to set up a task panel to examine how DDC should respond to the Climate Emergency.¹ In doing so, it was following the example of many other English councils (over 100) which had already introduced policies and programmes to reduce greenhouse gas emissions. In July 2019 the Local Government Association itself unanimously passed a motion recognising the climate emergency and the role that local government has to play in combatting it. The task panel was established in late July with Cllrs Frost, Harris and Ritchie as members.

Part of our remit as a task panel was to make recommendations on how DDC could further reduce the emissions generated by its own activities. However, although it was recognized that DDC must set an example by its own efforts, a much bigger issue appeared to be how DDC could take a lead in reducing emissions across the District as a whole. Government estimates suggest that in 2017 the District was responsible for around 840 k-tonnes of carbon dioxide of which only 1.7 k-tonnes was produced by DDC, making DDC emissions only a 0.2% of the total. The task panel therefore set as its priority finding ways in which DDC could provide leadership in reducing District-wide emissions.

¹ A copy of the Council's motion establishing the task panel is attached as Appendix A.

Many of the sources of these emissions are outside the control of DDC. For example, around 30% of emissions attributed to the District come from motorway traffic – closing the M1 is not an option, and reducing these emissions depend on Government policies and incentives and/or legislation to move to vehicles that don't use fossil fuels. Similarly, much of the emissions from commercial and domestic properties arise from electricity taken from the grid, and big reductions can only be achieved by changes in how that energy is generated. We have therefore focused on things that can be done within the District – and there are many of them – while presenting them as part of the wider challenge in meeting the Government's target of net-zero emissions by 2050 or earlier.

Much has been done by many other councils to reduce emissions, and even more has been written about. A major part of our work has therefore been in assessing what has been tried elsewhere and in identifying those measures which seem relevant to, and feasible for, the District, given its size, its small-town-and-village mix of settlements, the nature of its industry and, of course, its budget. We are also grateful, however, for the many proposals which have been made to us by parish councils, concerned residents and others.

We have looked at emissions and the scope for reducing them in each of the three major categories covered by Government statistics – Domestic (section 4.1), Commercial (section 4.2) and Transport (section 4.3) – as well as at how they may be off-set by afforestation (section 4.4).

Government statistics do not, however, cover all the emissions which we, as residents, generate through our everyday activities: in section 4.5 we consider what changes individuals can make in their lifestyles to help contain climate change.

The Government's Climate Change Committee has noted that targets for emissions reductions will not be met without generating a wide public awareness of the threat of climate change and engaging the public in responding to that threat. Many of our recommendations are therefore about how we must communicate with residents and in section 5 we make proposals on how we can develop a network of partners and concerned residents to ensure that the climate emergency remains high on the District's agenda.

We also look at the emissions from DDC's own activities and how they could be reduced to as near to net-zero as reasonably possible (section 6). Although, as noted above, these emissions are only a small part of the District total, our message that we all must make changes to respond to the climate emergency might appear insincere if it was perceived that DDC was not doing all that it can to tackle its own emissions.

In appendix E we list the sources of information and evidence we have used, including all those with whom we have met or consulted by email: we are grateful to them all for giving us their time, expertise and ideas. We are also grateful to the 50 residents who attended the public meeting we held in November 2019 and who contributed many of the ideas which are presented in section 4.5.

In our work we have been assisted by Chris Riches who approached the panel after having asked a question on Climate Emergency at the Council meeting on 25th July 2019. Although he has been away from Daventry at university during much of our work, he has participated by correspondence and contributed the opening section ('The Climate Emergency') of this report. We therefore wish to record our appreciation of Chris Riches' help.

1.2.2 The Implications of Local Government Re-organisation

Most councils which have declared climate emergencies have set target years by which they hope to achieve substantial reductions in emissions – some go further and seek ‘net-zero’ emissions. Although the Government’s target year is 2050, most councils have adopted a much more ambitious target of 203. Some, following demands of campaigners, have chosen 2025 – a target which might be laudable but which is considered hopelessly optimistic by most experts. (In section 3 we discuss the nature of targets.)

For DDC, however, setting a target year is complicated by the anticipated re-organisation of local government in Northamptonshire which is likely to see Daventry District become part of a wider West Northamptonshire area with a unitary council, covering Northampton town and South Northants District as well as Daventry. Setting targets for a time long after DDC has ceased to exist may seem meaningless but, as re-organisation in itself will do nothing to reduce emissions, we believe that a target has value in underlining the urgency of measures to address the climate emergency and in helping establish a timeframe for their implementation.

Where in this report we make recommendations for action by DDC, these should be regarded as recommendations to whatever local authority includes Daventry District following re-organisation. We have been encouraged to find that, in the other councils of the West Northamptonshire area, there are similar panels and initiatives being taken. We have therefore liaised with colleagues in other councils (and particularly S Northants whose Working Group on climate change has invited us to their meetings) in the hope that at an early stage in its existence the new unitary council will itself declare a climate emergency with targets and policies for achieving them based on the work done and proposals made by the existing councils.

The proposals for local government re-organisation have arisen from the financial difficulties of the County Council. The new unitary authorities will not therefore have an easy start to their lives: they will inherit the debts and budgetary problems of the County Council and will in addition need to meet the costs of re-organisation. Beyond maintaining statutory social care services at a minimum level, the new councils will be limited in what they can spend, and any proposals for new projects to combat climate change will find themselves in competition with demands for road repairs, children’s centres, libraries, etc. Nevertheless, it will be important that the new councils do not ignore the urgent needs of the planet and that they make adequate provision for ensuring that progress towards targets for emission reductions is met.

However, while the national response to the Climate Emergency will require massive investments, the demands on local authorities may not be as burdensome as they might first appear. Many, and indeed most, of the recommendations made in this report require only little council funding beyond what is likely to be available through Government programmes. Much can be achieved through appropriate policies, for example on building regulations and planning, and many of the measures proposed have the potential to bring about financial benefits as well as improvements in health and well-being. Indeed, even at the national level many see the transition to a more environmentally-friendly UK as a route to the creation of new job opportunities and economic regeneration.

2. A STRATEGY FOR RESPONDING TO THE CLIMATE EMERGENCY

The threat of changes in our climate is so serious that reducing greenhouse gas emissions must be at the centre of DDC's policies and plans. DDC should take every opportunity to affirm and demonstrate its commitment to responding to the climate emergency.

In this section we make some key, over-arching recommendations for measures which we believe are required to put responding to climate change at the centre of DDC's work.

1. DDC should declare a Climate Emergency. (R2-1)²

Through the motion it passed at its meeting in May 2019, the Council effectively accepted that it faced a Climate Emergency. A formal declaration, however, would have value in affirming publicly that DDC recognises the acute dangers of climate change. It would also ensure that DDC is recognized as a local authority which has accepted its obligations to respond urgently to the climate emergency, and Daventry would be added to the list of councils which have done so.

A declaration would be symbolic, but it must be more than that. At a recent Carbon Trust event, local authority officers noted:

A lack of consistent, coherent political and corporate leadership on climate change within local authorities has long been an issue. Although we are seeing a shift, more still needs to be done to escalate climate action within council priorities. Unless climate action is mainstreamed at cabinet-level, support can drain away quickly.”³

It is our hope that DDC will “mainstream” climate action and provide leadership on the issue, not just in the District but amongst other councils, and particularly those of West Northamptonshire.

2. DDC should set targets for the reduction of emissions. (R2-2)

A declaration of a Climate Emergency without targets might be regarded as empty rhetoric. Targets must therefore be set which are ambitious and challenging but achievable. We recommend that:

- A target of net-zero emissions not later than 2030 should be set for those emissions which are in the direct control of DDC;
- For emissions which DDC can influence but not control, targets should be operational targets which allow DDC's implementation of its plans and their effectiveness to be monitored.

3. DDC should revise its Corporate Strategic Plan to make specific and prominent references to the reduction of emissions. (R2-3)

We believe it important that action on climate change should not just be seen as a supplement to DDC's other operations. A low or zero-carbon council and district should be at the heart of DDC's 'vision'. DDC needs an overall Climate and Environment policy which informs all operational and strategic decisions. Revisions to DDC's key objectives and priorities are proposed in Appendix B.

² Recommendations are numbered within sections (e.g. this is the first recommendation of section 2).

³ <https://www.carbontrust.com/news/2019/12/local-authority-climate-emergency-what-s-next/>

4. All DDC policy and project proposals should contain a statement on their likely impact on greenhouse gas emissions. (R2-4)

Although all such papers already have an environmental impact statement, these statements should make specific reference to the anticipated effect on emissions and, if appropriate, on steps to be taken to reduce emissions.

5. DDC should prepare a Climate Emergency Strategy and formulate a Climate Emergency Programme. (R2-5)

We propose the following Climate Emergency Strategy:

- *Raise awareness of the Climate Emergency*
- *Make responding to the Climate Emergency an aim of all DDC policies.*
- *Reduce emissions of greenhouse gases in the District by:*
 - *promoting changes which householders can make and providing them with information on sources of advice and funding available;*
 - *encouraging businesses to make their premises more energy efficient and end, or substantially reduce, their use of energy from fossil fuels;*
 - *facilitating and promoting a transition from petrol and diesel vehicles to ones which use cleaner fuels;*
 - *encouraging residents to make appropriate lifestyle changes which would both lower emissions and provide health, environmental and financial benefits.*
- *Seek to offset CO2 emissions through the planting of trees and preserving green areas.*
- *Work with and support partners, including parish councils, Daventry Town Council, schools and colleges and businesses, on programmes aimed at reducing and offsetting emissions;*
- *Establish methods of ongoing engagement with residents and partners on climate change issues.*
- *Reduce emissions from DDC's buildings and operations with the aim of making it possible for a new unitary council to achieve a 70% reduction (from 2019 levels) by 2030.*
- *Take all other reasonable and affordable initiatives to reduce emissions within the District.*
- *Plan and adapt to the impacts of climate change.*
- *Ensure that, as far as is possible, actions to reduce emissions benefit all residents and do not discriminate against those on lower incomes.*
- *Press for Government action to ensure that legislation is in place and funding is available to enable the Government's target of net-zero emissions to be achieved by 2050.*

The Climate Emergency Programme should include all of the actions recommended in this report. Actions which are relatively low cost should be taken without delay, but we accept that some will require further work to determine options and costs.

6. DDC should appoint a Climate Emergency Programme Manager. (R2-6)

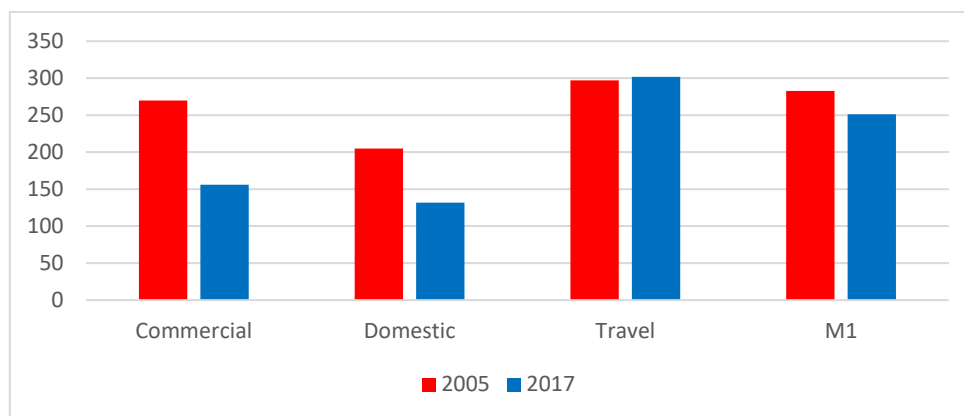
A Climate Emergency Programme will require a dedicated Officer of appropriate seniority to manage and co-ordinate activities. We recognise, however, that a programme of the scope we envisage may require significant staff time, but we recommend that an early task of the Manager should be to assess what additional staff might be required and inputs which existing staff may be required to contribute.

7. DDC should liaise with other councils in West Northamptonshire to formulate policies and plans which can be proposed to the new unitary authority. (R2-7)

DDC should use its influence to help ensure that its policies and programmes are adopted by the proposed unitary council. While the new council will need to formulate policies and programmes which can be applied across the whole of West Northamptonshire, DDC should seek to ensure that the policies it has adopted and the measures it has taken are not diluted. In the coming year, however, the approaching re-organisation should not be used as a reason for inaction.

3. DAVENTRY DISTRICT'S EMISSIONS AND THE SCOPE FOR THEIR REDUCTION

Government estimates of the main categories of Daventry District's emissions (in kt CO₂) in 2005 and 2017⁴ are shown below:



The reduction since 2005 in 'commercial' and 'domestic' emissions appears impressive. However, these reductions have been largely the result in electricity generation moving away from the use of fossil fuels, and to a lesser extent progress towards more efficient gas boilers: actions taken by DDC and residents are likely to account for only a very small part of the overall reductions. Indeed, we expect that very few residents are aware of progress that has been made as the changes that have been made are not ones that have any impact on their lifestyles. Achieving further reductions will be different and more difficult.

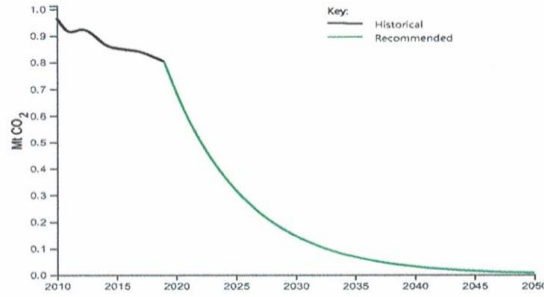
The Government has set a target of net-zero emissions by 2050, but most of the local councils which have declared climate emergencies have chosen 2030 (some have gone for 2025, but few believe there is any realistic chance of reaching net-zero emissions so quickly). However, the nature of these targets differ: in some cases they relate only to the emissions generated by the councils themselves, and in other cases they appear to be aspirational. As the Carbon Trust notes, many councils "are facing targets that have been set in order to meet political and public objectives, rather than evidence or science-based targets that build on a robust scoping exercise."⁵

The Tyndall Centre for Climate Change Research at Manchester University has calculated for all local authorities the emissions budgets which they should use if the UN Paris Agreement's objective of keeping global warming at less than 2% is to be achieved.⁶ For Daventry it recommends that "a consistent emissions reduction rate of -14.3% out to the end of the century is applied".

⁴ From: <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017>

⁵ <https://www.carbontrust.com/news/2019/12/local-authority-climate-emergency-what-s-next/>

⁶ The detailed recommendations for Daventry and the methodology used can be found at: <https://carbonbudget.manchester.ac.uk/reports/E07000151/print/>



Tyndall Centre emissions budget for Daventry

This would mean that Daventry should reduce its total 2019 emissions to around 50% by 2025 and to about 20% by 2030. These targets are more ambitious than those of the Committee on Climate Change which envisages roughly equal reductions each year rather than equal percentage reductions. The Tyndall Centre’s ‘budgets’, however, are calculated to ensure that total cumulative emissions between now and 2050 are not more than 4.8 million tonnes of CO₂, considered to be Daventry District’s “fair” contribution to achieving the aims of the Paris Climate Change Agreement: more gradual progress towards net-zero in 2050 would result in this total being exceeded.

Using a mix of the emissions budgets proposed by the Tyndall Centre and recommendations of the Climate Change Committee, we have constructed a rough picture of how emissions from the District should reduce over the coming decade. We have assumed:

- Commercial and Domestic emissions can be reduced to 25% of current levels by 2030 (the Tyndall target for that year is 20%), but through equal annual reductions. This may seem ambitious, but reductions in these categories are more easily achievable than for transport and unless significant reductions can be made here the Government’s 2050 target is unlikely to be met.
- Transport emissions can be reduced by 5% by 2025 and 20% by 2030. While we hope for a much faster rate of reductions, the lead time for making all vehicles carbon-free (see section 4.3) is likely to mean that significant reductions in this category cannot be expected until after 2030.

These assumptions lead to the following scenario:

Projected Daventry District emissions (in kt-CO₂)

	2005	2019	2025	2030
Commerce	269.0	155.7	103	50
<i>Electricity</i>	<i>144.6</i>	<i>69.1</i>	<i>43</i>	<i>17</i>
<i>Gas</i>	<i>37.8</i>	<i>26.9</i>	<i>17</i>	<i>7</i>
<i>Other fuels</i>	<i>64.0</i>	<i>40.0</i>	<i>25</i>	<i>10</i>
<i>Agriculture</i>	<i>22.5</i>	<i>19.7</i>	<i>18</i>	<i>16</i>
Domestic	205.3	131.8	82	33
<i>Electricity</i>	<i>97.5</i>	<i>43.4</i>	<i>27</i>	<i>11</i>
<i>Gas</i>	<i>80.7</i>	<i>68.6</i>	<i>43</i>	<i>17</i>
<i>Other fuels</i>	<i>27.1</i>	<i>19.9</i>	<i>12</i>	<i>5</i>

Transport (excl M1)	295.2	300.0	285	240
<i>'A' roads</i>	217.1	221.5	210	177
<i>Minor roads</i>	75.9	76.7	73	61
<i>Other</i>	2.2	1.8	2	1
Land use	6.5	-7.1	-8.0	-10.0
Total	776.0	580.4	463	313
Reduction on 2019		0.0%	44.4%	62.5%
<i>Commercial</i>		0.0%	33.8%	67.9%
<i>Domestic</i>		0.0%	37.5%	75.0%
<i>Transport (excl. M1)</i>		0.0%	5.0%	20.0%

Notes:

1. We have calculated these reductions as being from 2019, but the figures used are those for 2017 which are the most recent statistics available. Although it is reasonable to assume that the downward trend in some categories of emissions will have continued in 2018 and 2019, it is unlikely that the use of more up-to-date figures would make any great difference in these estimates.
2. In addition to excluding emissions from motorways, we have also disregarded emissions from diesel trains (a relatively small category) as both motorways and trains are national rather than local in nature.
3. The 'Land use' figures refer to the 'Land Use, Land Use Change and Forestry Sector'. The calculation of these estimates is very complex⁷ and takes account of a variety of factors. Our estimates for 2025 and 2030 are reasoned guesses: over time the afforestation we propose will absorb an increasing amount of CO₂, but woodland takes time to develop and the change in land use will have a negative impact in that there will be emissions from soils. Agricultural land may also be lost in the building of new estates.

These figures give us a map of where we are and where we should be heading – they demonstrate the scale of what is required and what we should expect to happen. They are not targets against which actions taken by DDC can be measured as emission reductions will be much more dependent on government efforts than those of DDC, but they can help identify areas where DDC must play a role in supplementing and supporting national programmes (for example, success in reducing emissions by cars can only be achieved by a move from petrol and diesel engines, but DDC has a role in ensuring that progress is not limited by a lack of charging points).

We are aware that the scenario we have presented will disappoint many who are concerned about climate change. We too would like much faster progress towards net-zero emissions but, given the Government's policies and plans and the formidable challenges, particularly in transport emissions, we have presented a picture of what we think is achievable if there is sufficient commitment from politicians and funding to make it happen.

⁷ See:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/812153/LULUCF_Local_Authority_mapping_report_2017.pdf

4. REDUCING EMISSIONS IN DAVENTRY DISTRICT

4.1 Emissions from homes

It is estimated that around 20% of all UK emissions come from homes. These emissions have dropped by around a fifth since 1990, in spite of the number of homes having risen by 25%, but this improvement is mostly a consequence of reducing the use of coal and introducing renewable energy sources in the generation of electricity,⁸ and a gradual move to the use of more efficient boilers. Nevertheless, emissions from an average home resulting from heating and electricity consumption is nearly 4 tonnes of CO₂ p.a.

However, the good news is that this is an area in which it should be possible to substantially reduce emissions and in ways that require no behavioural changes but can also reduce fuel bills.

There are three main approaches that can be used:

- Installing heat pumps
- Installing solar panels
- Improving insulation

Heat pumps and solar panels

Heat pumps and solar panels have the potential to reduce emissions from homes to near zero – encouraging their use must therefore be a major part of our strategy for achieving our overall emissions targets. They can be installed easily in most homes (other than flats): panels require roof space which receive a reasonable amount of sunlight, and pumps only need a small area adjacent to an exterior wall where they can be fitted.

Heat pumps and solar panels are described in more detail in the box on the following page.

Heat pumps and solar panels give us technologies capable of reducing household emissions to near zero. The problem is how we move to a situation in which the great majority of homes use either one or the other, or both.

Installation costs are likely to be in the range £6 – 8,000 depending on the size of the installation and the nature of the property. We cannot expect householders to meet these costs unless they are confident that they will save at least as much over a reasonable period of time. The energy savings that can be achieved will depend on both the efficiency of the energy source they are replacing or supplementing and the pattern of energy usage (particularly with solar panels) (see box). If only the reduction in fuel bills is considered, pay-back periods which may be as long as 20 years are unlikely to be attractive (although such calculations do not take into account future increases in fuel prices, particularly oil and gas, which may be well above the rate of inflation).

⁸ According to the Climate Emergency Committee, almost all progress in tackling climate change has come from electricity generation ('2019 Progress Report to Parliament', CCC, July 2019).

Heat pumps

Heat pumps extract heat from the air (or in some cases from the ground), working like a refrigerator in reverse. They can be used to heat water for radiators and even hot water systems. Although they run on electricity, their net effect can be a considerable reduction in the energy needed from other sources, and therefore a reduction in emissions. Depending on the type of heating system they are replacing (or supplementing), they can cut emissions by up to 7,000 kg of CO₂ pa per home.

A heat pump requires only a small amount of space adjacent to an exterior wall and installation is therefore possible in most homes other than flats. They may, however, require changes to larger radiators as the operating temperature is lower than achievable with other sources of heat.

Solar panels

Solar panels use photovoltaic cells to generate electricity from sunlight (and they can do this even on a dull day). A typical system can generate 4 kWp (kW peak – the maximum it can generate in full sunlight). The benefits vary depending on the pattern of electricity usage, households using energy during daylight hours getting much more advantage than homes occupied mainly in evenings.

Electricity which is generated but not used can be exported (i.e. sold back to the electricity supplier): until recently the Government offered a very advantageous buy-back tariff, but from January 2020 payments for electricity not required will be much more modest.

Solar panels can also be used with a battery which stores surplus energy generated during daylight hours which can then be used after dark when homes are more likely to be occupied. Batteries are not, however, cheap – they can cost between £2,500 and £6,000 depending on the storage capacity - so householders may need to consider whether their advantages would offset the costs.

As with heat pumps, households may be eligible for payments under the Renewable Heat Incentive.

The task panel acknowledges the assistance of Mark Partridge, CEO of Bright Green Renewables, in its work on this section of the report. The task panel, however, is responsible for the content of the report.

However, most households installing pumps or panels will be eligible for the Government's Renewable Heat Incentive (RHI) through which most of the installation costs could be paid to them through grants over a seven-year period. Including the RHI in an assessment of costs and benefits should make the decision to install one or other of these technologies a no-brainer for most people.

Both solar panels and heat pumps have important roles to play in reducing emissions, but if choices need to be made, priority should be given to heat pumps. Solar panels replace electricity taken from the grid with green energy from the panels, but as fossil fuels are gradually phased out of power generation, grid electricity itself is likely to become relatively green. Domestic emissions will then largely come from homes that still use oil or gas for heating, and although the Government aims to decarbonize all domestic heating by 2050 (starting by "ending the installation of high carbon heating systems for new homes and homes off the gas grid during the 2020s"), it must be assumed that

many homes will continue to use oil and gas for some years to come. For these homes, heat pumps have the capacity to significantly reduce the amount of fossil fuel they use.

Government documents (including recent reports of the Committee on Climate Change) note that increasing the use of heat pumps may be constrained at present by a lack of trained installers. While this problem may be addressed by national programmes, there would appear to be a case for asking appropriate local colleges to include heat pump technologies in their curriculum.

Improving home insulation

Household energy requirements (and therefore costs and emissions) can be significantly reduced by making homes more energy efficient through improved insulation to reduce the heat lost through walls, windows and roofs. What is possible and what is affordable will depend on the nature of a property: it is therefore an area in which householders will require specialist advice before deciding whether the benefits justify the costs.

Action by DDC to reduce emissions from existing homes

DDC does not own houses (other than the small TDECL estate) and as a result it does not face the huge costs that other councils have needed to meet in improving the energy efficiency of their housing stock. The downside, however, is that DDC cannot act directly in making improvements such as the installation of heat pumps or panels and improvements in insulation. We therefore believe that DDC's strategy here must aim to ensure that all householders are fully aware of the benefits of measures to reduce emissions, that householders are aware of government support available and are given advice in making applications, and finally that local installers can be easily contacted.

We therefore recommend that:

1. DDC produces a leaflet for distribution to all homes in the District explaining the benefits and costs of heat pumps, solar panels and improved insulation as well as giving information on sources of advice and on how to find a local installer (*R4.1-1*). As the technologies, costs and incentives will change over time, and as many may need to be reminded of the benefits, the leaflet should be updated and recirculated at regular intervals (every, say, three years).
2. DDC runs a series of 'Energy Clinics' in Daventry town and major villages at which experts are available to provide information and at least initial advice to residents considering installing a heat pump or solar panels or improving home insulation.⁹ (*R4.1-2*)
3. DDC contacts local technical colleges, providing them with a copy of this report and urging them to include the installation of heat pumps and solar panels in the courses they offer (*R4.1-3*).

Many residents do not, of course, own their own homes. We therefore recommend that information is also sent to private landlords (perhaps using material specifically related to their interests) (*R4.1-4*).

⁹ We have discussed our proposals with the Northamptonshire Energy Saving Service (NESS) as it organises visits of its 'Rural Information Centre' to villages. NESS is primarily concerned with fuel poverty, providing advice mainly to people referred to it by CAB and social services. While some of its assistance might result in people reducing their energy use and hence emissions, that is not the focus of its work and it does not advise on the technologies proposed here. Nevertheless, there is clearly a case for co-ordination with NESS in planning events in villages and Daventry town.

Many homes in the District are owned by housing associations. Targets for emissions reductions will not be met without their involvement. We therefore recommend that DDC has discussions with the major housing associations operating in the District to explore what actions they can take to make their homes more energy-efficient (*R4.1-5*).

In doing so, discussion with Futures Housing will be particularly important. Many of the homes transferred to it through Daventry District Housing are in Daventry's older estates, and it must be assumed that these homes are amongst those most in need of improvement. As many of the houses will be of roughly similar design and construction, there may be economies of scale in the assessment of what is required and in installation work. If possible, home owners in similar houses in the same estates should be offered the same improvements if their inclusion in a larger programme of works would result in price reductions for them.

New homes

New homes are generally much more energy efficient than older ones. Although the Government has set a target of reducing the energy use in new homes by a half by 2025, if we are to achieve net-zero emissions by 2050, or earlier, all new homes should be as near carbon-neutral as they possibly can be.¹⁰ (This is particularly important in our District where a large increase in the number of homes is anticipated – if new homes are not energy efficient, they will substantially add to the District's emissions.)

In October 2019 the Government launched a consultation on 'The Future Homes Standard' – legislation on the building standards which the Government plans to introduce around 2025. However, the consultation also covered more immediate changes to uplift standards in the years before the Future Homes Standard is fully developed and in place.

Although the consultation closes on 7th February (i.e. before this report can be considered by the Council), we have already made recommendations to DDC on how it should respond to the consultation (these are to be found in Appendix C).

All new homes, wherever feasible, should be equipped with heat pumps and/or solar panels. There has been some confusion over whether local authorities are allowed to make such demands on developers as in 2008 the Government announced its intention to prevent local authorities setting standards higher than what national legislation requires, but this change has not been implemented and DDC therefore has the freedom to set its own standards.

We therefore recommend that DDC uses whatever powers it has at present under national planning and building regulations to compel developers to incorporate heat pumps and/or solar panels into all new homes where possible and to build them with high standards of insulation (*R4.1-6*).

We recommend that DDC affiliates to the UK Green Building Council (*R4.1-7*). Affiliation, for which there is no charge, would enable Members as well as Officers to sign up for UKGBC press releases and bulletins.

¹⁰ In considering new buildings, the carbon footprint should be calculated for the 'whole life' of the building, i.e. including the emissions which would have been created in the production of the building materials.

The Big Switch

DDC's Big Switch scheme offers residents an opportunity to reduce their electricity bills and thereby tackle fuel poverty. By negotiating prices on behalf of thousands of residents, more advantageous prices can be obtained.

The Big Switch, however, does nothing at present to reduce emissions – it may even increase them by making electricity cheaper, although we expect the effects to be negligible.

Many electricity supply companies, however, also advertise their services in terms of the sources of their electricity, some offering a higher proportion of energy from renewable sources than others. We therefore recommend that in choosing an electricity supplier, DDC's Big Switch scheme takes some account of the proportion of power generated in an environmentally friendly way.

We therefore recommend that DDC uses the proportion of energy coming from renewable sources as a criterion in deciding the supplier it uses for its Big Switch scheme *(R4.1-8)*.

Some local authorities have set up their own supply companies to provide electricity not just at tariffs lower than those of the 'big six' major suppliers, but 100% from renewable sources. Fosse Energy is one example: it is a joint venture of Leicester's City Council and County Council and it is supplied through Robin Hood Energy, a company wholly-owned by Nottingham City Council, which also supplies around ten other local authority schemes. We accept that DDC, with re-organisation approaching, is not in a position to contemplate establishing such a company, but we recommend that the new unitary authority explores with Robin Hood Energy, or a similar company, the creation of a company to provide residents with cheap electricity entirely from renewable sources. *(R4.1-9)*

Local authority generation of electricity

Some local councils have created their own electricity generation companies. West Sussex County Council owns and operates two solar farms which make use of unused, low-grade land to generate renewable electricity (some of which is used to power its own buildings) and an income. Together they have 44,000 solar panels generating enough electricity for several thousand homes, and one has a large, on-site battery so that electricity can be released to the grid at peak times.

Oxford City Council and Oxford County Council, together with local partners, have received funding of £40m to develop 'Project LEO' (Local Energy Oxfordshire) to trial a local 'smart grid'. It will develop a local energy market (using the existing infrastructure) supplied by over 90 local renewable energy projects.

Such projects may be well beyond the scope of DDC, but there is no reason for the new unitary authority not to be innovative and ambitious. We therefore recommend that the new council considers what role it might have in the local generation of renewable energy. *(R4.1-10)*

In this report we have not considered the commercial generation of electricity within the District through solar and wind farms. Such projects are clearly needed if Government targets are to be met: DDC, and the new unitary after re-organisation, should therefore welcome proposals (subject, of course, to planning rules) to have renewable energy generation projects sited in the District.

4.2 Commercial emissions

Emissions from the Commercial sector account for just over a quarter of the District's emissions. This is a much lower proportion than the national average (about 39%), but that is to be expected as Daventry does not have much heavy manufacturing or chemical industries.

This is a sector which we have not been able to research in any detail, but emissions fall into two categories:

- Emissions from buildings (including warehouses and offices)
- Emissions from operations (production, etc).

For the purposes of forecasting how District emissions might change in the coming decade, we have assumed that total Commercial emissions are equally divided between the two. While this is only an educated guess, given the prevalence of distribution companies with extensive warehousing in the District, we believe it to be a reasonable assumption to make and a sufficient one for the purposes of our analysis.

Emissions from commercial buildings

Here the issues are much the same as for domestic emissions, and the route to significantly reducing emissions will require much greater use of heat pumps and solar panels and the construction of new buildings to higher insulation standards.

Emissions from operations

This has in the past been described as a 'hard to reach' area because of its diversity and in many cases the availability of low-emission and energy efficient machinery and processes. Nevertheless, much research has been done on the scope for using alternative fuels, such as hydrogen (particularly suitable as a replacement for gas) and biomass. In many cases, however, the extent to which existing power sources can be substituted may be limited, and in our projections (section 3) we have assumed only a 30% reduction by 2030.¹¹

What DDC can do

We recommend that DDC engages consultants to advise on the best ways of substantially reducing net carbon emissions from its buildings, including consideration of solar panels and heat pumps, and the potential for, and costs of, installing heat pumps and/or solar panels on all commercial buildings which it owns. Contributions to the installation costs should be sought from tenants depending on the likely saving likely to be achieved. (R4.2-1. See also R6.1-2)

We recommend that DDC engages with businesses in the District to discuss the contributions they can make to the reduction of emissions (R4.2-2). There is a case for establishing a forum for business representatives to monitor progress and make recommendations to the sector.

It is encouraging that the Amazon depot in Daventry has installed the largest solar panel array of its kind in the country, with 2000 panels capable of generating 25% of the depot's energy needs, and that it aims to achieve 80% of its energy from renewable sources by 2024 and 100% by 2030. We

¹¹ See, for example:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/824592/industrial-fuel-switching.pdf

suggest that ways are sought of using Amazon's example and experience to provide encouragement to others.

4.3 Emissions from transport

In the UK, around 40% of all emissions at present are caused by transport. In Daventry District, which includes sections of the M1, M45 and A14 and where the geography makes many reliant on cars, it is much higher – nearly two thirds.

It seems clear that, at least in the foreseeable future, we cannot expect any significant reduction in the use of cars and commercial vehicles. The only way in which these emissions can be reduced is through a move to electrically powered vehicles and to the use of other alternative low-carbon fuels. That will require action by the Government.

The Government's ambitions are

we will end the sale of new conventional petrol and diesel cars and vans by 2040. By then, we expect the majority of new cars and vans sold to be 100% zero emission and all new cars and vans to have significant zero emission capability. By 2050 we want almost every car and van to be zero emission.

We want to see at least 50%, and as many as 70%, of new car sales and up to 40% of new van sales being ultra low emission by 2030.¹²

However, the Committee on Climate Change, in its 2019 report, argued that:

2040 is too late for the phase-out of petrol and diesel cars and vans, and current plans for delivering this are too vague.¹³

The CCC has also concluded that a switch to electric vehicles in 2030 would produce a cost saving over a 2040, or even a 2035, switch.¹⁴

While we believe the Government must take heed of its Committee on Climate Change's warning and set a more ambitious target date, it appears that ending the sales of petrol and diesel cars and vans much before 2030, as many advocate, would be difficult to achieve. It will take time for manufacturers to convert their production lines to e-vehicles and petrol and diesel will therefore be the norm for new vehicles for several years to come, and those buying them will expect them to have a life of at least 10 years. Moreover, we cannot expect such a transition until batteries have been developed that can vastly increase the distances vehicles can travel on a single charge, until there is technology for much faster charging, until the cost of e-vehicles can be substantially reduced, until there is adequate provision of charging points and until service stations can make the necessary changes.

For larger commercial vehicles, hopes for emission reductions lie mainly with the use of alternative fuels (hydrogen being a possibility) but, as with cars, much development work will be needed before major changes are possible.

We therefore, regrettably, do not expect transport emissions to drop much before 2030. Beyond 2030, we hope that the ban on petrol and diesel vehicle sales (or the anticipation of its introduction) will result in significant reductions in the following decade, but achieving near zero emissions by

¹² 'The Road to Zero', Department of Transport, 2018

¹³ 'Net Zero: The UK's contribution to stopping global warming', Committee on Climate Change, May 2019

¹⁴ Ibid, p. 200.

even 2040 will present a major challenge. Our ‘targets’ for reducing transport emissions therefore reflect what we believe are the realities of the time needed for making a transition.

DDC, however, has its part to play in ensuring that the change to e-powered vehicles is not inhibited by a shortage of charging points. We therefore recommend that:

1. DDC uses its communication channels to inform households of the Electric Vehicle Home Charge Scheme grants (£500) available for the installation of home charging points (R4.3-1);
2. DDC should endeavour to ensure that all new homes with off-street parking should be built with charging points installed (although the Government has proposed this as a requirement,¹⁵ until legislation is enacted, DDC should strongly encourage developers to provide charging points); (R4.3-2);
3. DDC drastically increases its plans for the installation of public charging points (R4.3-3). A paper presented to the Strategy Group in November 2018 reported only three dual charging points in the District (other than those at Watford Gap services) and proposed a further 8. The Committee for Climate Change, however, estimates that the country will need around 214,000 public charging points: Daventry District’s share on a per capita basis would be around 280, and given the District’s reliance on cars a higher target should be set. Many of the charging points needed will be installed at existing filling stations, and Highways England is committed to having a charging point every 20 miles on the strategic road network. However, given the time required for recharging, it is likely that the greatest demand for public charging points will be in existing car parks. We therefore recommend that DDC:
 - installs, or promotes the installation of, at least 10 new public charging points each year from now until 2025;
 - reviews the provision of charging points in 2025 with a view to increasing the annual number of installations over the following 10 years (the period in which the major increase in electric vehicles is likely to be seen);
 - is guided by the recommendations of the Strategy Group paper of November 2018 in deciding where public charging points should be located;
 - encourages and supports parish councils in providing charging points in major villages, e.g. at village halls and libraries, possibly using CIL funds;
 - uses planning regulations to require that all new homes with off-street parking have charging points installed.

There are, of course, actions that can be taken to reduce the miles driven – these are discussed in section 4.5.

We recommend that DDC proposes to the County Council that contracts offered to bus companies require buses which meet the highest reasonable standards in terms of their emissions (R4.3-4). This may include the use of hybrid buses with flywheel technology.¹⁶

The Government has created a £50 million fund to assist taxi owners make the change to e-vehicles: grants of £3,000 or £7,500 are available depending on the range of the vehicle.¹⁷ We recommend that (a) DDC ensures that all taxi owners in the District are aware of this scheme and (b) DDC explores the use of the licencing system to provide incentives to change to e-taxis (R4.3-5).

¹⁵ Proposed in ‘The Road to Zero’, Department of Transport/OLEV, 2019, p 15;

<https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy>

¹⁶ Cambridge City Council reports that flywheel technology on hybrid buses can reduce CO2 emissions by 30%.

¹⁷ <https://www.gov.uk/government/publications/plug-in-taxi-grants-eligibility-and-applications>

4.4 Off-setting emissions through tree planting

Our environment is important for lots of reasons, but it has a major role to play in reducing the impact of climate change.

Trees are particularly important as they absorb CO₂ from the atmosphere. Completely eliminating our CO₂ emissions would be very difficult, but trees can allow us to get to 'net-zero' emissions, i.e. our CO₂ emissions are no more than what our trees can absorb. The problem with trees, however, is that we need an awful lot of them.

The Government's Committee on Climate Change has set a target of planting 30,000 – 50,000 hectares of new woodland every year from now until 2050. Achieving it would mean planting an area half the size of Daventry District each year for the next 30 years! Daventry's share, based on our percentage of the total area of the UK, would be 82 – 136 hectares each year, resulting in over 10% of the district being woodland by 2050, although some experts, recommend that all districts should be at least 20% woodland by 2050. Fortunately, however, there are some parts of the country where the opportunities for tree planting are much greater than in our district.

We therefore recommend that the new unitary council sets a target of 100 hectares each year for the next 30 years (R4.4-1). This would result in an increase in woodland of more than 50% by 2050.¹⁸

While promoting the planting of trees in villages and in urban estates is to be encouraged, the number of trees will require new areas of woodland, ideally scattered around the District and where possible near to areas where emissions are likely to be higher. Sites will need to be chosen where trees will prosper, but avoiding the use of high-quality agricultural land. Specialist advice will be needed in choosing the types of trees which will be most effective in removing CO₂ and which will also provide a natural habitat for wildlife.

For DDC, the question is how it can help in promoting tree-planting on this scale. DDC does not own much land which is not already used for residential or commercial purposes, and it has no, or at least very limited, scope for buying land for new woodland.

Landowners are unlikely to plant trees unless they offer income comparable with alternative land uses. In November 2019, the Government launched a 'Woodland Carbon Guarantee' scheme¹⁹ with a fund of £50 million. It allows landowners to bid in an auction for the income they would require to create woodland: successful bidders will then receive an annual income based on rates determined by future auctions for a period of at least 30 years.

We recommend that DDC considers offering landowners in the District an information service on this scheme, if necessary with advice on making bids (which may require making estimates of the CO₂ which their woodland will absorb) (R4.4-2).

(While we welcome the introduction of this scheme, we think it is unfortunate that it does not appear to give local authorities any say over where woodlands should be sited. We would have preferred a scheme that allowed local authorities to be able to designate areas considered to be suitable for woodland, taking account of their amenity value and proximity to sources of emissions,

¹⁸ Although the Government's National Forestry Inventory suggests only 4% of Daventry District is woodland, this does not include smaller areas of woodland and isolated trees. Aerial surveys, however, show a higher proportion, but well below 10%.

¹⁹ <https://www.gov.uk/guidance/woodland-carbon-guarantee>

in a roughly similar manner to the way in which areas can be designated for residential or commercial development.)

There are other actions which DDC can take to create new woodland, albeit on a more limited scale.

We recommend that DDC:

- Undertakes new planting on land which it owns (R4.4-3);
- Encourages and supports new planting by communities, schools, parish and town councils etc. (R4.4-4).
- Ensures the restoration and protection of existing woodlands and important green spaces (R4.4-5).²⁰

Any new residential or commercial developments should also be required to include a minimum level of tree planting of a suitable nature. As developments cause emissions there is also a case for requiring S106 contributions for onsite or offsite woodlands. We therefore recommend that DDC develops appropriate standards for the number of trees on developments and amends its CIL Infrastructure List to include measures to offset emissions (R4.4-6).

We also recommend that DDC liaises with Highways England and makes recommendations to it on areas, such as embankments and cuttings, where trees might be planted alongside motorways and other major roads without compromising safety (R4.4-7).

Planting trees on this scale will change the face of many parts of the District. However, it should be remembered that woodland has value other than in tackling climate change. It can offer new areas for recreation, and in other parts of the country woodland has been created with paths and cycleways. Research has demonstrated that there are health benefits, including mental health benefits, of being among trees.

In addition to tree planting, there is also much scope for planting wild flowers. Although flowers will not absorb carbon in the same way as trees, they can do much for our biodiversity and support the population of insects which are essential for crop pollination but may be under threat from climate change. They would also, of course, do much to enhance the appearance of our towns, villages and countryside.

4.5 What we can do as residents

People cause emissions, but they can reduce these emissions by some quite simple changes in their lifestyle. Most of these changes will also reduce fuel bills, and many will bring health and other benefits.

We have been tremendously encouraged by the many residents who have contacted us with their ideas on what can be done by individuals to help avoid a climate catastrophe, and by the examples they are setting for others. While it is difficult to quantify the reduction in CO₂ which their suggestions might achieve, they all contribute to the overall effort to meet emissions targets.

In the home

- No-one should suffer from being cold, but do we often heat our homes more than is necessary? The Committee on Climate Change recommends that thermostats should not be set to higher than 19 degrees, and the thermostats on individual radiators can avoid the unnecessary heating

²⁰ These three recommendations (4.4-3,4,5) are taken from a report approved by South Northants Council in December 2019.

of rooms which are not in constant use (alternatively, some radiators can simply be turned off when not required!).

- Similarly, hot water systems need not heat water to more than 55 degrees. Showers require less water than baths, and consequently require less energy and produce less emissions.
- Washing machines can generally do an adequate job when set to 20 degrees rather than the much higher temperatures to which they can be set.
- Turning off light and other electrical appliances is of course an obvious way of reducing fuel costs.
- Do we cut our grass more than is necessary? We don't advocate unkept gardens, but motorized lawnmowers use electricity or petrol, and some have pointed to the environmental benefits of grass with wild flowers to attract pollinating insects.

Transport

- Many people will need to continue to use cars, but do they need to use them so often? The use of public transport can help reduce emissions, while walking or cycling is not just cost-free but good for our health.
- Some have suggested 'Walk to School' days, particularly for primary schools which tend to be more local and have more parents who use cars to take and collect children. Employers should also encourage 'Walk (or cycle) to Work' days. The impact of just a few car-less days might not be great, but they can lead to more people walking or cycling regularly.
- Where cars must be used, car-sharing could reduce the number of journeys made. Often the obstacle to car-sharing is logistical – we may not know who else might be planning the same journey. It has therefore been suggested that villages should have a local website where a place in a car can be offered or requested. Here there is also scope for employers helping to link staff who travel the same routes.
- Air travel is a major source of emissions. Flights will often be necessary, but when travelling within the country, or to many parts of Europe, the use of trains is a much greener option.

Re-use, repair and recycle

- Waste contributes to emissions in two ways: items which are thrown away have a carbon footprint arising from their manufacture, and there are energy costs in the collection and disposal of things not needed. Our throw-away culture results in emissions from the production of things that are not strictly needed: buying a new phone just to get the latest technology results in the same emissions as driving a car for 193 miles, while buying new trainers to move with the fashion is equivalent to a London bus travelling 93 miles.

We can therefore all reduce emissions by recycling more (and more carefully), by not replacing things that don't need replacing or can be repaired.

Diet

- Cattle, sheep and goats, by belching methane, cause about 14.5% of worldwide emissions (methane, although less prevalent than CO₂, is more potent as it traps 28 times more heat²¹). Reducing the amount of meat and dairy products we consume will reduce the number of animals reared and therefore reduce emissions.

Livestock farming is also much more resource intensive than arable farming. One study found that "plant-based agriculture grows 512% more pounds of food than animal-based agriculture on 69% of the mass of land that animal-based agriculture uses."²² There has been much concern over the destruction of the Amazon rain forest which absorbs so much of our CO₂, and the

²¹ <https://faunalytics.org/farming-animals-vs-farming-plants-comparison/>

²² *ibid*

forests are being cleared to make way for cattle ranching: in the past five years, Britain has imported \$1.5 billion of Brazilian beef, so fewer beefburgers mean reduced emissions.²³ Changing to vegan diets would make a big difference to global emissions: while that may be a step too far for many people, reducing meat and dairy consumption would be a great help.

What DDC can do to promote lifestyle changes

Spreading the message

DDC's leadership should involve making as many people as possible aware of what they can do themselves to reduce emissions. We therefore recommend that the full range of DDC's communication channels should be used, and used regularly, to convey and reinforce messages about climate change (*R4.5-1*).

We recommend that DDC should organise a special programme of events for World Environment Day (5th June) (*R4.5-2*).

We can't expect everyone to change their lifestyles on altruistic grounds alone. Messages therefore need to stress the benefits in terms of health and cost-savings as well as the damage we are doing to the planet.

Reducing the use of cars

- 1) We cannot expect people to use cars less if there are no other alternative means of transport. Ensuring that all parts of the District have an adequate bus service is therefore essential if transport emissions are to be reduced.
- 2) Buses driving round villages with only one or two passengers, however, does not help reduce emissions. We therefore recommend that, prior to its demise, DDC should urge the shadow and incoming unitary authority to set up a working group to study alternatives – this might include consideration of dial-and-ride schemes using the internet and other technologies to ensure that any scheme is effective, greener and attractive to use (*R4.5-3*).
- 3) It has been suggested that free parking in Daventry town encourages the use of cars. We are reluctant to propose parking charges as this may have a detrimental effect on Daventry's town centre, but we recommend that consideration is given to a modest (perhaps 50p) carbon-offsetting charge for all vehicles (other than electric vehicles and disabled residents) using Daventry's car parks (*R4.5-4*). There may also be a case for asking employers to introduce similar charges in their own car parks. In order to make such a charge as publicly acceptable as possible, it should be made clear that money raised, beyond the administrative costs of the scheme, will be used for environmental projects and not just treated as general revenue.
- 4) Daventry already has a reasonable network of cycleways. We recommend that these are expanded, with street lighting where appropriate so that they can be used safely after dark (*R4.5-5*). While we recognise that what DDC can do before its abolition might be limited, all new plans, where appropriate, should include the provision of cycleways. There may also be a case for installing railings in the town centre to which bikes can be chained: while it is not

²³ *New Internationalist*, Dec 2019, p51.

obvious that the lack of them inhibits the use of cycles, their existence might provide an incentive for cyclists.²⁴

Recycling

Daventry's recycling performance is well above the national average, being 65th in the league table of 345 local authorities, but in 2002/3 it was top of the league. Although DDC is now recycling more than it did in 2002, in the past 17 years it has not made the progress that has been achieved by some other councils. It is reasonable to expect, however, that the changes in the refuse collection service made in 2017 will increase the percentage of waste recycled.

It appears, however, that factors which reduce the care residents take in recycling include:

- uncertainty over what can be recycled and what can not;
- cynicism over what happens to waste which residents have sorted, with claims that different categories of waste are sometimes put into the same sections of collection trucks.

We therefore recommend that DDC produces a video to clarify what can be recycled and to restore confidence in the system (*R4.5-6*). The video should show the trail of what happens to recycled material from putting it in the bin to processing and its possible re-use.

It has been suggested to us that separate recycling bins should be provided, for example outside shops, for the collection of crisp packets, etc. We recognise that the economics of such recycling would need to be explored, but we recommend that DDC considers the proposal (*R4.5-7*).

Sometimes 'waste' is simply things that their owners no longer require. We recommend that DDC asks NCC to consider restoring the scheme whereby serviceable goods taken to recycling centres are made available to others at very modest prices (*R4.5-8*).

Diet and lifestyle changes

Each year Daventry Town Council runs a very popular food market. We recommend that DDC explores with the Town Council the feasibility of a 'Green Market' with stalls selling, and demonstrating the merits of, vegan and vegetarian food, and with opportunities for those promoting green products and services (heat pumps, solar panels, bikes and cycling accessories, etc.) and those campaigning on environmental issues. Although town markets are the responsibility of the Town Council, such a market would provide a service to many living outside the town and there is therefore a case for DDC providing logistic and financial help. (*R4.5-9*).

The scale of the changes needed

All of the proposals made in this section are relatively easy to make and few require any major or difficult changes in people's lifestyles. They are all important, but we end with a warning that they may not be enough if we are to prevent a climate disaster. A recent report²⁵ commissioned by the Committee of Climate Change concluded that:

²⁴ Cambridge City Council is creating 600 new cycle parking places as part of its 2016-2021 Climate Change Strategy.

²⁵ *Behaviour change, public engagement and Net Zero* : <https://www.theccc.org.uk/publications/> and <http://www.imperial.ac.uk/icept/publications/>

“Breaking with previous messaging to households to make small and easy changes, high-impact shifts in consumer behaviours and choices are needed that are consistent with the scale of the climate challenge, build optimism and commitment, and give weight to new ambitious narratives that inspire wide public participation. These changes need not be expensive or reduce well-being and could deliver huge co-benefits to health and beyond, but they will not happen at the pace required unless policy first removes obstacles to change in markets and consumer choice.”

Our recommendations address the “small and easy changes” as these are things that be addressed within the District and promoted by DDC. The “high impact” changes, as the report notes, requires changes in Government policy.

5 Engaging with residents and partners

5.1 Putting the Climate Emergency at the heart of DDC's communications

Emissions targets are unlikely to be met without effective public engagement. People are important because:

- Emissions are in a large part a result of how people live their lives: we need changes in lifestyles not just from the small minority who are concerned and committed to taking action themselves but from everyone, and that will not happen unless the climate emergency and the challenges it poses are widely understood;
- Governments and local councils need to take action, in many cases quite radical action, and they are more likely to be prepared to do this if there is a sense that their electorates demand it.

We therefore need to aim for a situation in which all residents are aware that the Climate Emergency is real, that our present ways of doing things are unsustainable and that inaction on climate change will affect them personally. We need to create a sense of collective responsibility for our planet that motivates people to make the changes that are needed. Our message must be one of urgency, but it can also be one of hope – a climate catastrophe is not inevitable and, with sufficient resolve, we have the ingenuity to devise ways of averting disaster. Moreover, our message must promise that although the measures required may not always be welcome, they are necessary and can also bring considerable benefits for health and job creation.

Our actions, however, must be consistent with our narrative. A message that we are heading towards disaster and must change our ways is unlikely to be convincing if people do not see their government or local council acting decisively or if they do not perceive climate change to be high on the agenda of policy-makers, national or local.

Everything that DDC does must, wherever appropriate, take account of the need to reduce emissions, and we recommend that, in its communications with residents, DDC must take every opportunity to reinforce the need for action.

5.2 Working with and through partners

DDC, however, will not be able to achieve this change in mindsets alone – it must work with and through partners within the District. In this section of our report we make a number of recommendations on how this might be done.

Parish councils and the town council

Daventry's network of parish councils is a major asset. When contacted by the task panel we were tremendously encouraged by the number of positive responses we received, and many representatives from councils attended the public meeting we held. Barby held its own meeting which attracted nearly 40 people on a Saturday afternoon, Braunston has already set up its own climate change group with an action plan for the village, Kilsby has supported the call for a declaration of a climate emergency, and Yelvertoft is considering forming a climate action group. There are no doubt others which have taken actions of which we are unaware.

We see a role for DDC in supporting and encouraging parish councils (and, of course, our references to parish councils should be taken to include Daventry Town Council). We recommend that the following approaches should be used:

- DDC should establish a forum (possibly online) which allows parish councils to exchange their ideas so that parish councils can learn from each other's experiences and initiatives, and hopefully be inspired by them (R5.2-1). In section 4.3 we will propose the creation of 'Climate Emergency Daventry' which would be an appropriate home for the forum.
- DDC should create a fund for the support of parish council projects aimed at reducing emissions (R5.2-2). Most of the projects that parish councils may want to propose are likely to be modest, and we therefore suggest a fund equivalent to, say, an average of £1000 per parish council each year. Criteria and applications procedures would, of course, need to be developed.²⁶
- DDC should establish an annual award for the parish council judged to have done most for emissions reductions (perhaps on the model of the 'best village' scheme) (R5.2-3).

Voluntary organisations

Likewise, DDC should support and encourage voluntary organisations in undertaking projects to reduce emissions. We recommend that a proportion of DDC's scheme for the support of voluntary organisations should be reserved for climate change work (this may require an increase in the scheme's budget) and climate change impact should be one of the criteria by which grant applications are assessed (R5.2-4).

Schools and colleges

Young people have been at the forefront of efforts to get politicians to address the Climate Emergency with greater urgency, and the young have more reason to be concerned at the consequences of inadequate action than those of us who will not see 2050. Their activities are to be encouraged, even when their criticisms and challenges to the 'establishment' cause us some discomfort.

We recommend that DDC contacts all secondary schools and colleges in the District to discuss with them how students can be given opportunities to discuss amongst themselves the implications of the Climate Emergency and how their concerns are best expressed. Participation in the ECO Schools Project should be encouraged.²⁷ (R5.2-6).

Commerce and industry

In section 4.2 we have already recommended that DDC engages with businesses in the District to discuss the contributions they can make to the reduction of emissions and considers the case for establishing a forum for business representatives to monitor progress and make recommendations to the sector. (While such a forum could be formed under the auspices of Climate Emergency Daventry, as proposed in 5.3 below, the voluntary nature of CED may make it less suitable for business representatives.)

5.3 Climate Emergency Daventry

We recommend that Daventry establishes a forum which brings together representatives of local partner organisations, concerned citizens and DDC (R5.3-1) with the following aims:

²⁶ We recognise that it may be possible to administer this fund as part of the existing community grants scheme. If that approach were to be used, we recommend that an amount is earmarked for parish council projects related to climate change to encourage applications.

²⁷ <https://www.eco-schools.org.uk/>

- Maintaining an overview of the District-wide response to the climate emergency;
- Helping to ensure that all residents are aware of the threat of climate change and of the actions they can take to avert it;
- Facilitating discussion on climate change issues and the District-wide response and providing opportunities for new ideas and proposals, from partners or residents, to be considered and, if appropriate, forwarded to relevant bodies;
- Monitoring the progress of DDC's work in response to the Climate Emergency and making recommendations to DDC when considered necessary.

In setting up such a body, DDC would be following the example of some other councils – Camden, for example, has created Climate Change Camden, and Northampton Borough Council has its Climate Change Forum.

Climate Emergency Daventry (CED for short, although we are open to other suggestions on what the body should be called) should receive logistical support from DDC. We recommend, however, that it should be an independent body. This would give it much greater legitimacy in the eyes of partners and residents. It would also give it greater freedom to praise DDC's actions and make criticisms when it feels that DDC is failing to do enough and quickly enough.

CED should operate in an open and transparent manner. It should be free to determine how it conducts its affairs, but we recognize the possible need for a simple constitution to ensure that it doesn't stray beyond its intended purpose. It should not be burdened with bureaucratic procedures beyond what is strictly necessary. We do not envisage it being necessary for CED to hold funds or employ staff, as long as basic administrative services are provided by DDC.

CED should be governed by a committee with members drawn from partner organisations and concerned residents. We recommend that an initial, temporary, committee should be appointed by DDC and that that committee should then make arrangements for the selection or election of future committees. We do not expect there to be a need for frequent meetings – perhaps quarterly – but when meetings are held they should be open to all who wish to attend and there should be reasonable opportunities for everyone present to contribute to discussions.

It would clearly be beneficial to have representatives of DDC involved in meetings. We recommend, however, that DDC representatives should not be members of the committee as that may detract from the independence, or perceived independence, of CED and risk confusion between CED recommendations and DDC policies.

We recommend that DDC assists CED in creating and maintaining a website which allows organisations and residents to post ideas, comments and news of activities with only light-touch moderation. Although we have recommended that DDC uses its own website to make residents aware of climate change and how they can reduce emissions, we see value in having an independent CED site on which people can make comments or proposals which DDC might not want to see on its own website.

We also see value in forums being established under the auspices of CED, for example to allow people from parish councils to meet together, or young people to meet to discuss initiatives which they consider important.

6. REDUCING DDC'S OWN CARBON FOOTPRINT

6.1 DDC's own emissions

Although emissions generated by DDC's own buildings and activities are only a very small part of District-wide emissions, it is important that DDC sets an example by doing everything it reasonably can to keep its own emissions to a minimum.

Many local authorities which have declared a Climate Emergency have set target years by which they hope to reach zero-emissions. We are reluctant, however, to recommend targets for DDC for which we cannot propose actions by which they could be achieved, and on that basis we recommend DDC aims to reduce its emissions (*R6.1-1*) as follows:

	Reduction in emissions from 2018/19	
	By 2025	By 2030
Emissions for which DDC is directly responsible	36%	73%
Emissions for which DDC is indirectly responsible	23%	72%
Total DDC emissions	25%	72%

Each year DDC prepares a 'Greenhouse Gas Emissions' report. Although the requirement to produce such reports ended when the Government abolished the Department for Energy and Climate Change in 2016, DDC, to its credit, has continued report annually. These reports show that DDC has reduced its emissions by nearly 27% since the 2007/8 base year – partly as a result of the efforts DDC has made to make its buildings and operations more energy-efficient and partly as a result of electricity generation becoming less reliant on fossil fuels. Achieving further significant reductions, however, will require more radical measures which will have associated costs.

Emissions are reported under three categories which are described in DDC's reports as follows:

The Scope 1 emissions include the gas emissions from the Council's buildings, Council owned vehicles and all business lease vehicles such as Environmental Health vans/pool cars. Fugitive emissions relating to air conditioning and refrigeration units have been excluded.

The Scope 2 emissions are those associated with the mains electricity consumption from the Council's buildings.

The Scope 3 emissions include the gas and electricity consumption from outsourced activities, the business mileage from private and leaseholder vehicle use, in addition to rail, bus and air travel where appropriate. Buildings that are managed by outsourced contracts are also included where the contractor is responsible for bill payments. Emissions from commuter travel have been excluded. Data on refuse and recycling trucks, road sweepers, grounds maintenance mowers and vans for the first year of the new environmental services contract with Norse are included.

Scope 1 and Scope 2 are both the direct responsibility of DDC (Scope 2 only differs in that the emissions are produced at a power station rather than within the District) and we have therefore considered them together.

Although Scope 3 emissions arise from outsourced activities, DDC must assume responsibility for them. For example, although DDC does not operate the Daventry Leisure Centre or the Abbey, DDC owns the buildings and therefore must take responsibility for their energy efficiency and it is within

DDC's powers to make demands of their users. Scope 3 emissions are therefore included in our targets.

The table below shows DDC's emissions in 2018/19:

	Scope		Kg CO2e	
1	1	Gas consumption	108653	5.9%
2	1	Lease Vehicles	16653	0.9%
3	1	Other Vans	4301	0.2%
4	2	Purchased electricity	187089	10.2%
5	3	Refuse and Recycling Trucks including Road Sweepers	654589	35.6%
6	3	Grounds maintenance mowers	161885	8.8%
7	3	Gas and electricity from outsourced buildings	685336	37.3%
8	3	Business travel from greyfleet (staff own vehicles)	18745	1.0%
9	3	Rail travel	521	0.0%
		Total Gross Emissions (kg)	1837772	100.0%

Scope 1

Gas consumption

These emissions can only be reduced by a move from a reliance on gas to heat offices. We therefore recommend that DDC engages consultants to advise on the best ways of substantially reducing emissions from its building, including consideration of solar panels and heat pumps (*R6.1-2 – see also Scope 2 and 3 below*).

Lease vehicles and other vans

We anticipate that, with Government proposals to ban the sale of petrol and diesel vehicles, these emissions will be substantially reduced over the coming decade.

Scope 2

Purchased electricity

We are likely to see a reduction in these emissions as the use of fossil fuels for the generation of electricity is reduced.

DDC already has solar panels on its offices, but we recommend that the consultants referred to above are also engaged to advise on the costs and feasibility of using heat pumps and additional solar panels to reduce the amount of electricity it takes from the grid (*as R6.1-2*).

Scope 3

Although Scope 3 emissions are from outsourced activities, all new (or re-negotiated) contracts should comply with DDC's climate emergency strategy and major contracts (e.g. with Norse) should include specific CO2 reduction targets.

Refuse and recycling trucks

These account for more than a third of DDC's total emissions. We understand that Daventry Norse has recently invested in new vehicles and it may not therefore be realistic to ask that they be replaced for some time to come. However, no new diesel-powered vehicles should be purchased, and when existing vehicles reach the end of their lives, we recommend that the new unitary authority should replace them with emission-free vehicles (R6.1-3). We are encouraged to hear that consideration is being given to vehicles powered by biomass generated from food waste. An alternative may be hydrogen-powered trucks: Eindhoven has recently moved to such trucks²⁸ – it should be possible for the unitary authority to start introducing them in Daventry by 2025.

Grounds maintenance mowers

We are not aware of any satisfactory alternatives to petrol-driven mowers being available, although it would be surprising if alternatives were not developed over the coming years. This is an area in which we recommend further research (R6.1-4). There may, however, be scope for a slight reduction in emissions by reducing the frequency and extent of grass cutting (see section 4.5, 'In the home').

Gas and electricity from outsourced buildings

This is the major source of DDC emissions. We therefore recommend that the consultancy referred to under Scope 1 above, on the scope for installing heat pumps and solar panels on buildings, should cover all buildings owned by DDC (as R6.1-2). Their installation may have considerable costs but should also produce savings: we therefore recommend that costs, insofar as it is possible, are recovered from tenants in a way that should be cost-neutral for them.

DDC is at present developing two major buildings – the Daventry cinema and the Mouton Leisure Centre. We were pleased to learn that both will be fitted with solar panels, but we are disappointed that how they are heated and power does not seem to have been discussed with those in DDC responsible for emissions monitoring and reduction. We recommend that all DDC plans for significant new buildings should be discussed with those responsible for DDC's Climate Emergency Programme and that similar practices are used by the new unitary authority. (R6.1-5).

Business travel from grey fleet

Emissions at present are only a small part of the total. We envisage, however, that with moves towards electric cars, more of the vehicles used will be low-emission.

The table on the following page shows how we believe the above measures, if fully implemented, could reduce DDC's emissions by 2025 and 2030.

²⁸ <https://hydrogeneurope.eu/news/presentation-first-hydrogen-powered-garbage-trucks-brabant>

Scope	Activity	2018/19 Kg CO2e	2025		2030	
1	Gas consumption	108653	54326.5	50%	27163.25	25%
1	Lease Vehicles	16653	12489.75	75%	8326.5	50%
1	Other Vans	4301	3225.75	75%	2150.5	50%
2	Purchased electricity	187089	140316.75	75%	46772.25	25%
	Refuse and Recycling Trucks including Road					
3	Sweepers	654589	490941.75	75%	163647.25	25%
3	Grounds maintenance mowers	161885	145696.5	90%	80942.5	50%
3	Gas and electricity from outsourced buildings	685336	514002	75%	171334	25%
3	Business travel from greyfleet (staff own vehicles)	18745	16870.5	90%	9372.5	50%
3	Rail travel	521	521	100%	521	100%
	Total Gross Emissions (kg)	1837772	1378390.5		510229.75	
	Reduction on 2018/19	0.0%	25.0%		72.2%	
	Reduction on 2008	26.8%	45.1%		79.7%	

6.2 Making DDC's investments greener

The idea of ethical investment has been around for decades. The idea is simple and pragmatic: we invest money to generate revenue for the achievement of certain objectives, so it would be perverse to support companies, through our investments, whose activities run counter to our objectives. Many large organisations – some much larger than DDC – use criteria other than financial return to decide where they put their money, and most (and possibly all) major fund managers offer clients the facility to invest ethically, with criteria being set to match the investors' values.

In the early years of ethical investments there was an assumption that any limitation on potential investments to be considered would lower returns, but this is no longer seen to be the case: while the evidence is mixed, the FTSE4Good UK index has achieved a slightly better return than the FTSE All Share Index over the past five years.²⁹ Moreover, some maintain that ethical investments are safer in that they are not so exposed to the risks of policy changes: for example, Mark Carney, the outgoing head of the Bank of England has recently warned that assets in the fossil fuel sector could end up worthless.³⁰ There is therefore nothing about ethical investment which is counter to an institution's obligation to invest wisely and prudently in the interests of its stakeholders.

For DDC, we recommend that no new investments or re-investments are made in banks or other funds which significantly support companies engaged in the extraction, processing or distribution of fossil fuels through significant lending or investment (*R6.2-1*).

We recognise that investments are normally made for fixed periods and that this recommendation may therefore be more applicable to the new West Northamptonshire authority. Nevertheless, any decisions that DDC is required to take in the remainder of its life should be in accordance with this policy.

We accept that there are practical problems in deciding which investments are, or are not, acceptable. Unfortunately DDC does not employ a fund manager who would have access to details of banks' lending and investment activities, but we recommend that DDC makes use of information and services that are available (for a modest cost) to assess its existing investments,³¹ and that any recommendations for new investments made to the Strategy Group should be accompanied by an assessment of their impact on emissions.

DDC's investments, as reported to the Strategy Group in November 2019, were:

Bank of Scotland	£7.5m
Federated LLP	£2.0m
First Abu Dhabi Bank PJSC	£7.5m
Goldman Sachs	£7.5m
Kettering Borough Council	£3.5m
Lancashire County Council	£5.0m
Lloyds Bank	£7.5m
Santander UK	£7.5m

²⁹ <https://www.thisismoney.co.uk/money/investing/article-6227207/Does-ethical-investing-really-make-money.html>

³⁰ <https://www.theguardian.com/business/2019/dec/30/firms-must-justify-investment-in-fossil-fuels-warns-mark-carney>

³¹ See, for example: <https://www.fundecomarket.co.uk/>, <https://ethicalinvestment.org.uk/> and <https://www.wealthify.com/ethical-investing>

Standard Chartered	£6.5m
Sumitomo Mitsui BCE	£7.5m
Toronto Dominion	£5.0m
Total	£67.0m

The task panel has not been able to investigate any of these investments, but we question the assertion in the report to the Strategy Group that they have no environmental impact.

One investment which stands out as potentially suspect is that with the First Abu Dhabi Bank, a bank that has close ties with the Abu Dhabi oil industry. The Bank of Scotland and Santander are both in the 'red' category (i.e. amongst the worst) of the Good Shopping Guide's ranking of banks by their ethical standards (although these ranking have been made on wider criteria than just their impact on the climate)³² and they therefore merit early investigation. (We have no information at present on the rankings of other banks listed above.)

We do not accept the view that all money is dirty. Triodos Investment Management,³³ which has been in operation for 25 years and manages \$4.6 billion, has always had social and environmental goals at the centre of its business, and recently the European Investment Bank announced that it will stop funding oil, gas and coal projects at the end of 2021 (unfortunately a year later than planned as a result of lobbying by EU finance ministers).³⁴

6.3 Council Member emissions

As a Council we produce emissions – perhaps not on the scale of those discussed above, but as part of our leadership role we should endeavour to set an example for others.

Council and Committee papers

We do not propose paperless meetings. Many of us find it easier to work with printed papers which allow us to look at more than one page at a time and to make margin notes. Often, however, document packs include lengthy attachments which, we suspect, few Members study in detail. For example, the papers for the Strategy Group meeting on 5th July 2018 consisted of 830 pages, 474 of which were consultation proposals on Part 2 of the Local Plan and 136 were on conservation area proposals. Similarly, Strategy Group papers for 12th September 2019 contained 640 pages of which 460 were on conservations areas and a neighbourhood development plan, and 132 were on Part 2 of the Local Plan.

We recommend that lengthy documents, such as neighbourhood development plans and conservation area proposals, should, when permissible under current legislation, only be provided electronically (when but with a provision for Members to request a paper version if they have particular reasons for requiring one. *(R6.3-1)*).

Video-link meetings

³² <https://thegoodshoppingguide.com/subject/ethical-banks-building-societies%e2%80%8d%e2%80%8d%e2%80%8d/>

³³ <https://www.triodos-im.com/>

³⁴ <https://www.bbc.co.uk/news/business-50427873>

For smaller meetings, for example where a Member, or a small number of Members, must meet with Council Officers, we recommend that DDC explores the use of video technologies (e.g. Skype or Zoom) to reduce emissions from car journeys (R6.3-2). (We do not recommend this approach for regular Council or Committee meetings where the interaction between larger groups of Members is important and where there is a requirement for public observation.)

Members' car-sharing

We recommend that Members are encouraged to share transport when travelling to DDC meetings (R6.3-3). If the 24 Members representing wards outside Daventry town are, say, on average 10 miles from the DDC offices and attend 10 meetings each year, the total distance travelled could be 4,800 miles pa: even halving this would be a worthwhile reduction in emissions. (There may be a case for further encouraging those distant from Daventry and who claim travel costs by offering differential mileage rates depending on whether or not they carry passengers.)

This recommendation may be of even greater importance following re-organisation when frequent journeys to Northampton or Towcester may be needed.

7. THE WAY AHEAD

This may be the final report of our task panel but for DDC it should only be the beginning of a journey towards zero carbon. All of the recommendations we have made are important, but their implementation alone may not be enough to achieve the reductions in emissions that we need to make. The challenge of climate change must therefore remain high on DDC's agenda and DDC must constantly monitor progress and seek new ways of tackling emissions.

7.1 Climate Emergency Working Group

We recommend that the Council forms a Climate Emergency Working Group (CEWG) of Members to oversee DDC's Climate Emergency programme (*R7.1-1*).

We believe that the formation of a CEWG would be more effective than simply asking the present task panel to continue its work. It should allow a larger group of Members to participate and all Members should be entitled to attend its meetings and take part in discussions. It should report directly to the Council (or Strategy Group when appropriate) in order to ensure that its recommendations can be considered without undue delay (the present task panel, having been appointed by the Scrutiny and Improvement Committee, can only report to that Committee and the schedule of meetings can result in recommendations taking weeks, or even months, to reach the Strategy Group and Full Council).

We suggest that the remit of the CEWG should be:

1. To receive reports from relevant Officers and monitor the progress of DDC's Climate Emergency programme;
2. To provide comments and advice to the Climate Emergency Programme Officer;
3. To maintain an overview of wider issues in the national response to climate change;
4. To formulate additional recommendations on actions which DDC should take to further its work in reducing emissions and submit them to the Strategy Group or the Council.

At present receiving recommendations from a working group is not a listed 'function' of the Strategy Group in DDC's constitution. There is therefore a case for making a revision to the constitution but, even without one, we do not see that as a reason for the Strategy Group being unwilling to consider such recommendations. (An alternative would be for individual members of the CEWG to submit recommendations to the Council as motions, but this approach would bypass the Strategy Group.)

7.2 Local government re-organisation

As noted elsewhere in this report, work in combatting climate change in the District is not something that can be completed in the coming year – it will require a sustained effort for decades to come. It is therefore important that DDC does all it can to ensure that its Climate Emergency Programme does not end with re-organisation but is made part of a wider West Northamptonshire programme.

7.3 Public engagement

Several of our recommendations relate to what we believe DDC must do to make the public aware of the threat of climate change and to encourage them to take appropriate actions. Public engagement on the issues is important because:

- Actions by individuals and not just by local and central government are needed;

- People are more likely to take appropriate actions if they see themselves as part of a movement to save the planet from the worst consequences of climate change, rather than them regarding the changes needed as being yet more diktats of government imposed upon them;
- Action by local and central government is more likely to be taken if the demand for change is in part driven by public opinion.

Communicating the importance of responding to the climate emergency, however, must be more than a single leaflet or posting on a website – it must be ongoing. Communication must not be just unidirectional – it must be about establishing a dialogue in which DDC welcomes the views and ideas of the District’s residents.

The recommendation we have made for ‘Climate Emergency Daventry’ (section 5.3) is therefore an important one which should be implemented as soon as possible.

7.4 Circulation of report

As an early step in communicating with partners and concerned residents, we recommend that this report, appropriately revised following the Council’s consideration of it and attractively presented, should be produced, circulated to parish councils, schools and colleges, appropriate voluntary organisations, etc. and made available to residents who wish to receive one (*R7.4-1*).

The report should be publicized on DDC’s website. Although we are conscious of the need to reduce the use of paper, in this instance we believe that major partners are more likely to take note of a paper report.

We also recommend that an abbreviated version of this report should be prepared as a pamphlet which can be made available in libraries and other public places and provided to organisations which wish to use it (*R7.4-2*).

7.5 Advocacy

As noted in throughout this report, the major changes needed to reduce emissions will require Government legislation and a large amount of funding.

The Government must be given credit for having set a target of 2050 for net-zero emissions (even if some would have liked a more ambitious target) and for the stance it has taken internationally on the issue. Nevertheless, the Government’s own Committee on Climate Change has expressed concern that progress has been too slow, that intermediate targets have not been met, and that our politicians appear not to have grasped the urgency of need for action.

As part of its community leadership role, we recommend that DDC takes every appropriate opportunity to convey to Government its concern that tackling the climate emergency should be a central Government priority and that sufficient funds to ensure targets are met must be made available (*R7.5-1*).

8. SUMMARY OF RECOMMENDATIONS

The following table summarises our recommendations in the order they appear in our report. Each recommendation should be read along with the relevant section of the report which, in many cases, provides extra detail.

Recommendations have been numbered within sections (for example, 4.2-2 refers to the second recommendation in section 4.2).

We ask the Council to accept all of these recommendations. In many cases, however, the recommendations will require more work by Officers and a more detailed recommendation presented to a future Council meeting, and in other cases the recommendations are proposals which DDC should make to the new West Northamptonshire Council (and its Shadow Board in 2020/21). I

In the right-hand column of the table below we categorise our recommendations as follows:

DDC	Recommendations which DDC should accept at its February 2020 Council Meeting for implementation as soon as is reasonably possible and certainly within the remaining life of DDC.
DDC for proposal by [month]	Recommendations which DDC should accept in principle at its February 2020 Council Meeting but ask Officers to prepare proposals for further discussion at the Council meeting in the specified month.
WNC	Recommendations which DDC should make to the Shadow Board of the new unitary authority (West Northamptonshire Council).
DDC / WNC	Recommendations which require action by DDC during the remainder of its life and also continuing action which should be recommended to the Shadow Board for WNC.

Number		Decision
	STRATEGIC AND OVER-ARCHING RECOMMENDATIONS	
2-1	DDC should declare a Climate Emergency	DDC
2-2	DDC should set targets for the reduction of emissions.	DDC
2-3	DDC should revise its Corporate Strategic Plan to make specific and prominent references to the reduction of emissions.	DDC
2-4	All DDC policy and project proposals should contain a statement on their likely impact on greenhouse gas emissions.	DDC
2-5	DDC should prepare a Climate Emergency Strategy and formulate a Climate Emergency Programme.	DDC

2-6	DDC should appoint a Climate Emergency Programme Manager.	DDC
2-7	DDC should liaise with other councils in West Northamptonshire in formulating policies and plans which can be proposed to the new unitary authority.	WNC
	EMISSIONS FROM HOMES	
4.1-1	DDC should produce a leaflet for distribution to all homes in the District explaining the benefits and costs of heat pumps, solar panels and improved insulation as well as giving information on sources of advice and on how to find a local installer. Similar information should be provided on the DDC website.	DDC
4.1-2	DDC should run a series of 'Energy Clinics' in Daventry town and major villages at which experts are available to provide information and at least initial advice to residents considering installing a heat pump or solar panels or improving home insulation.	DDC for proposal by May 2020
4.1-3	DDC should contact local technical colleges, providing them with a copy of this report and urging them to include the installation of heat pumps and solar panels in the courses they offer.	DDC
4.1-4	DDC should also send information on energy-saving technologies to private landlords (perhaps using material specifically related to their interests).	DDC
4.1-5	DDC should hold discussions with the major housing associations operating in the District to explore what actions they can take to make their homes more energy-efficient.	DDC
4.1-6	DDC should use whatever powers it has under national planning and building regulations to compel developers to incorporate heat pumps and/or solar panels into all new homes where possible and to build them with high standards of insulation.	DDC for proposal by May 2020
4.1-7	DDC should affiliate to the UK Green Building Council	DDC
4.1-8	DDC should use the proportion of energy coming from renewable sources as a criterion in deciding the supplier it uses for its Big Switch scheme.	DDC
4.1-9	The new unitary authority should explore with Robin Hood Energy, or a similar company, the creation of a company to provide residents with cheap electricity entirely from renewable sources, and it should consider what role it might have in the local generation of renewable energy.	WNC
4.1-10	The new unitary authority should consider what role it might have in the local generation of renewable energy.	WNC

	COMMERCIAL EMISSIONS	
4.2-1	DDC should engage consultants to advise on the potential for, and costs of, installing heat pumps and/or solar panels and the on all commercial buildings which it owns.	DDC
4.2-2	DDC should engage with businesses in the District to discuss the contributions they can make to reduce their emissions.	DDC
	EMISSIONS FROM TRANSPORT	
4.3-1	DDC uses its communication channels to inform households of the Electric Vehicle Home Charge Scheme grants (£500) available for the installation of home charging points	DDC
4.3-2	DDC should endeavour to ensure that all new homes with off-street parking should be built with charging points installed.	DDC for proposal by May 2020
4.3-3	DDC should drastically increase its plans for the installation of public charging points.	DDC for proposal by July 2020
4.3-4	DDC proposes to the County Council that contracts offered to bus companies require buses which meet the highest reasonable standards in terms of their emissions.	DDC
4.3-5	DDC (a) should ensure that all taxi owners in the District are aware of Government support for the purchase of new e-taxis and (b) explore the use of the licencing system to provide incentives to change to e-taxis.	a) DDC b) DDC for proposal by May 2020
	OFF-SETTING EMISSIONS THROUGH TREE PLANTING	
4.4.1	DDC should encourage the new unitary council to set a target of 100 hectares each year for the next 30 years.	WNC
4.4-2	DDC should consider offering landowners in the District an information service on the Woodland Carbon Guarantee scheme, if necessary with advice on making bids.	DDC for proposal by July 2020
4.4-3	DDC should undertake new planting on land which it owns.	DDC
4.4-4	DDC should encourage and support new planting by communities, schools, parish and town councils etc;	DDC for proposal by May 2020
4.4-5	DDC should ensure the restoration and protection of existing woodlands and important green spaces.	DDC
4.4-6	DDC should develop appropriate standards for the number and types of trees on developments and amend its CIL Infrastructure List to include measures to offset emissions.	DDC for proposal by May 2020

4.4-7	DDC should liaise with the Highways England and make recommendations to it on areas, such as embankments and cuttings, where trees might be planted alongside motorways and other major roads without compromising safety.	DDC
	WHAT WE CAN DO AS RESIDENTS	
4.5-1	DDC's leadership should involve making as many people as possible aware of what they can do themselves to reduce emissions.	DDC
4.5-2	DDC should organise a special programme of events for World Environment Day (5 th June).	DDC
4.5-3	Prior to its demise, DDC should urge the Shadow and incoming unitary authority to set up a working group to study alternative methods of providing public transport for villages and rural areas.	WNC
4.5-4	DDC should give consideration to a modest carbon-offsetting charge for all vehicles (other than electric vehicles and disabled residents) using Daventry town's car parks.	DDC for proposal by July 2020
4.5-5	Daventry's network of cycleways should be expanded: although what DDC can achieve prior to re-organisation may be limited, the provision of cycleways, where appropriate, should be included in all new plans.	DDC / WNC
4.5-6	DDC should produce a video to clarify what can be recycled and to restore confidence in the system. The video should show the trail of what happens to recycled material from putting it in the bin to processing and its possible re-use.	DDC
4.5-7	DDC should consider the case for separate recycling bins in public places for crisp packets, etc.	DDC for proposal by July 2020
4.5-8	DDC should ask NCC to consider restoring the scheme whereby serviceable goods taken to recycling centres are made available to others at very modest prices.	NCC
4.5-9	DDC explores with the Town Council the feasibility of a 'Green Market'	DDC
	ENGAGING WITH RESIDENTS AND PARTNERS	
5.2-1	DDC should establish a forum (possibly online) which allows parish councils to exchange their ideas.	DDC
5.2-2	DDC should create a fund for the support of parish council projects aimed at reducing emissions.	DDC for proposal by May 2020
5.2-3	DDC should establish an annual award for the parish council judged to have done most in reducing emissions.	DDC for proposal by May 2020

5.2-4	A proportion of DDC's scheme for the support of voluntary organisations should be reserved for climate change work.	DDC for proposal by May 2020
5.2-5	DDC should contact all secondary schools and colleges in the District to discuss with them how students can be given opportunities to discuss amongst themselves the implications of the Climate Emergency and how their concerns are best expressed. The use of the ECO Schools Project should be encouraged.	DDC
5.3-1	Daventry establishes a forum ('Climate Emergency Daventry') which brings together representatives of local partner organisations, concerned citizens and DDC	DDC
	REDUCING DDC'S OWN CARBON FOOTPRINT	
6.1-1	DDC should aim to reduce emissions from its buildings and operations (from 2019 levels) by over 70% by 2030.	DDC / WNC
6.1-2	DDC should engage consultants to advise on the best ways of substantially reducing emissions from its building, including consideration of solar panels and heat pumps.	DDC
6.1-3	When existing refuse collection vehicles reach the end of their lives, they should be replaced with emission-free vehicles	WNC
6.1-4	Alternatives to petrol driven mowers should be explored.	DDC
6.1-5	All DDC plans for significant new buildings should be discussed with those responsible for the control of emissions and similar practices should be used by the new unitary authority.	DDC / WNC
6.2-1	No new investments or re-investments should be made in banks or other funds which significantly support companies engaged in the extraction, processing or distribution of fossil fuels through significant lending or investment. DDC should make use of information and services that are available to assess its existing investments, and that any recommendations for new investments made to the Strategy Group should be accompanied by an assessment of their impact on emissions.	DDC
6.3-1	Lengthy documents attached to Council and Committee agendas should, when permissible under current legislation, only be provided electronically, but with a provision for Members requesting a paper version.	DDC
6.3-2	DDC explores the use of video technologies to reduce emissions from car journeys.	DDC
6.3-3	Members are encouraged to share transport when travelling to DDC meetings.	DDC

	THE WAY AHEAD	
7.1-1	The Council should form a Climate Emergency Working Group (CEWG) of Members to oversee DDC’s Climate Emergency programme.	DDC
7.4-1	This report, appropriately revised following the Council’s consideration of it and attractively presented, should be produced, circulated to parish councils, schools and colleges, appropriate voluntary organisations, etc. and made available to residents who wish to receive one.	DDC

Appendix A

COUNCIL MOTION ESTABLISHING THE TASK PANEL

At a meeting on 15th May 2019, Daventry District Council passed the following motion which led to the establishment of the Climate Emergency Task Panel.

Climate Emergency

This Council notes:

- that the impacts of climate breakdown are already causing serious damage around the world;
- that the 'Special Report on Global Warming of 1.5°C', published by the Intergovernmental Panel on Climate Change in October 2018, (a) describes the enormous harm that a 2°C average rise in global temperatures is likely to cause compared with a 1.5°C rise, and (b) confirms that limiting Global Warming to 1.5°C may still be possible with ambitious action from national and sub-national authorities, civil society and the private sector.
- that all governments (national, regional and local) have a duty to act, and local governments that recognise this should not wait for their national governments to change their policies;
- that strong policies to cut emissions also have associated health, wellbeing and economic benefits;
- and that, recognising this, a growing number of UK local authorities have already passed 'Climate Emergency' motions.

This Council therefore resolves to urgently refer the matter to Scrutiny & Improvement for a task panel to be convened at the earliest available opportunity to investigate whether DDC is doing all that it can to minimise its impact upon the environment and examine how DDC, through its actions, can provide leadership to local communities in seeking ways of reducing harmful emissions.

This Council envisages that the programme of the task panel will include (but not be confined to):

- Reviewing and appraising the work that DDC is already doing to reduce greenhouse gas emissions;
- Considering the case for requiring all DDC-owned buildings (where reasonably possible) to have solar panels;
- Considering the feasibility of requiring all new homes (where reasonably possible) to have solar panels;
- Examining DDC's investment portfolio with a view to recommending the termination of any investments which are in environmentally damaging commercial activities;

- Spreading the message about the need for action to protect the environment.

The task panel will consist of

- A cross-party group of councillors;
- Any local climate-change experts or residents whom the task panel may wish to co-opt.

Appendix B

Proposed revisions to DDC's Corporate Strategic Plan, 2017 – 2021

Objectives

Add to the second objective as follows (also to be added in the Foreword):

Improve Our Business Economy, Learning and Skills
Protect and Enhance Our Environment **including by reducing greenhouse gas emissions**
Promote Healthy Safe and Strong Communities and Individuals
Be an Effective and Efficient Council

Priorities

Add to E1 as follows

E1 Reduce adverse environmental impact, **including by reducing greenhouse gas emissions**

What we want to achieve

Add to Priority E1:

E1.3 Increase the number of homes and commercial buildings using green energy
E1.4 Increase the area of woodland
E1.5 Substantially reduce emissions from the Council's buildings and activities.

Appendix C

RESPONDING TO THE CONSULTATION ON 'FUTURE HOMES STANDARD'

Further to a discussion at the Council meeting on 5th December 2019, the Climate Emergency Task Panel prepared this note proposing DDC responses to some of the questions raised in this MHCLG consultation.³⁵

Background

The consultation is an extensive one and it covers many technical areas which are beyond our expertise. Our proposals are therefore confined to those questions that relate to the speed of progress towards building standards which ensure net-zero emissions from new buildings.

The case for urgent action is indisputable. Generally, around 20% of all emissions come from homes: in Daventry District it is less (15.7% in 2017) because of the high emissions from transport in the District – if motorway emissions are excluded, the District's homes contribute 23.5% of emissions. In the coming decade, Daventry District anticipates a significant increase in population: unless urgent action is taken to ensure that new homes are carbon neutral (or as near to it as possible), an increase in population will mean an increase in emissions (and Daventry District already has the highest per capita emissions in the county).

Although the Government's target is net-zero emissions by 2050, until that target is met we will continue to add to the CO₂ in the atmosphere, thereby accelerating global warming. Of all emissions, it is those from homes and commercial buildings that offer the most immediate scope for reductions (reductions in transport emissions will require a move away from petrol and diesel engines which will require a longer time frame).

The RIBA has set its profession a '2030 Climate Challenge' which aims to reduce "operational energy demand and carbon by at least 75%, before offsetting": the RIBA believes its minimum strategy should achieve zero-carbon between 2025 and 2030, but a 'satisfactory trajectory' should reach that position by 2025 and a 'best practice' one by 2020. As well as reducing the "operational energy" demands of new homes (i.e. the emissions a new home is likely to produce) by 75% by 2030, the RIBA's targets include the reduction of embodied carbon (CO₂ emitted in the production of building materials) by at least 50 – 70%.³⁶ (The embodied carbon may be as much as half of a building's 'whole life' carbon footprint.³⁷)

We therefore believe that DDC should use the consultation as an opportunity to give its support to measures which reduce emissions from new homes to zero (or net zero) in the fastest reasonable time.

Selected consultation questions

³⁵ The consultation document can be found at: <https://www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-l-and-part-f-of-the-building-regulations-for-new-dwellings>

³⁶ <https://www.architecture.com/-/media/GatherContent/Test-resources-page/Additional-Documents/RIBASustainableOutcomesGuide2019pdf.pdf>

³⁷ <https://www.ukgbc.org/wp-content/uploads/2019/04/Net-Zero-Carbon-Buildings-A-framework-definition.pdf>

Q1 Do you agree with our expectation that a home built to the Future Homes Standard should produce 75-80% less CO2 emissions than one built to current requirements?

a. Yes

b. No – 75-80% is too high a reduction in CO2

c. No – 75-80% is too low a reduction in CO2

We recommend 'Yes', although we would be delighted if DDC were able to make an argument for seeking a higher reduction in emissions.

Q2 We think heat pumps and heat networks should typically be used to deliver the low carbon heating requirement of the Future Homes Standard. What are your views on this and in what circumstances should other low carbon technologies, such as direct electric heating, be used?

We see no reason for heat pumps not being used in all new buildings.

We accept, reluctantly, that for a few years ahead many new buildings will have gas boilers which are major emitters of CO2. Heat pumps have the potential to significantly reduce the use of gas.

We recognise that emissions from electric heating are likely to decrease as fossil fuels are phased out of electricity generation, but this is unlikely to happen quickly. Moreover, there are concerns over whether the national grid has the capacity to provide the extra energy that would be required, particularly if, as anticipated, there is a rapid move to electrically-powered vehicles.

We believe that the focus on heat pumps should not be at the expense of the greater use of solar panels which (unlike heat pumps) are a zero carbon solution which would reduce the demand on the grid and provide householders with at least some of their energy free.

Q4 When, if at all, should the government commence the amendment to the Planning and Energy Act 2008 to restrict local planning authorities from setting higher energy efficiency standards for dwellings?

a. In 2020 alongside the introduction of any option to uplift to the energy efficiency standards of Part L

b. In 2020 but only in the event of the introduction of a 31% uplift (option 2) to the energy efficiency standards of Part L

c. In 2025 alongside the introduction of the Future Homes Standard

d. The government should not commence the amendment to the Planning and Energy Act

We recommend 'd', i.e. that the Government does not prevent LPAs from setting standards that are higher than the national requirement.

We had been led to believe that DDC did not have the freedom to attach conditions to planning application relating to energy use and efficiency. However, although the Government had indicated that it would remove that freedom, it never did. In the report which we are preparing for the Council, we will recommend that DDC makes changes in its planning and building regulations to require new homes and commercial buildings to be fitted with solar panels and/or a heat pump, and to use materials which minimise heat loss.

We believe it would be wrong for the Government to prevent Councils from seeking a faster move to zero-carbon than required by national legislation.

Q5 Do you agree with the proposed timings presented in Figure 2.1 showing the Roadmap to the Future Homes Standard?

- a. Yes**
- b. No – the timings are too ambitious**
- c. No – the timings are not ambitious enough**

We recommend 'c'.

It is proposed that, following the consultation, initial changes to standards are made in mid-2020. That we welcome.

However, it is then proposed that work on formulating the Future Homes Standard will take over three years, with the new standard not coming into force until 2025 (and we are aware that Government timetable are not always adhered to).

We believe that work should progress much more quickly. The consultation document states that “We envisage research into the Future Homes Standard to commence from 2021” – given that we are responding to an ‘emergency’, we do not consider it acceptable that research should not begin for more than year. We accept that collecting evidence may take time, but believe that the Government should move as quickly as possible in introducing the Future Homes Standard, even if amendments to it are needed as new evidence emerges.

Q6 What level of uplift to the energy efficiency standards in the Building Regulations should be introduced in 2020?

- a. No change**
- b. Option 1 – 20% CO2 reduction**
- c. Option 2 – 31% CO2 reduction (the government’s preferred option)**
- d. Other**

We recommend 'c' (Option 2).

Option 1 is based on the performance of a home with “very high fabric standards” (e.g. triple glazing) which are likely to be the standards used in the Future Homes Standard, a gas boiler and a waste water heat recovery system.

Option 2 is described as a ‘Fabric plus Technology’: it is based on a home with high fabric standards (but not as high as those of option 1), a gas boiler and waste water heat recovery system, and solar panels.

Given the urgency of reducing emissions, we believe it would be a serious neglect of our responsibilities if we were to advocate ‘no change’ or a smaller reduction in emissions than the Government’s preferred option.

We would have recommended ‘d’ if we had felt able to propose a higher level in CO2 reductions which was realistically achievable. Option 2 does not envisage the same high fabric standards which Option 1 suggests are possible, and we would have preferred an option based on the fabric standards of Option 1 with the solar panel requirements of Option 2.

Appendix D

SOME SOURCES OF FUNDING FOR EMISSIONS REDUCTIONS

Renewable Heat Incentive (RHI)

<https://www.cat.org.uk/info-resources/zero-carbon-britain/>

The Domestic RHI offers grant support, payable over seven years, to assist householders in installing solar panels, heat pumps and biomass boilers and stoves. The amount paid depends on the technology and energy use, but can cover the costs of installation.

There is also a Non-Domestic RHI scheme.

Electric Vehicles

<https://www.goultralow.com/fleets-and-businesses/grants-incentives/>

At present, the Government's Office of Low Emission Vehicles (OLEV) offers grants of up to £3,500 for the purchase of new electric cars (but no longer hybrids). The scheme also covers motorcycles (up to £1,500) and vans (up to £8,000). No application is needed as the grant is applied by the dealer. However, the Government has announced its intention to terminate the scheme.

Charging points for electric vehicles

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/772404/evhs-guidance-for-customers-v-2.3.pdf

OLEV offers grants to cover 75% of the costs of installing a home charging point (capped at £500).

Plug-in Taxi Grants

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/828680/plug_in_taxi_grant_guidance.pdf

The Department of Transport/OLEV offers £3000 or £7500 grants for the purchase of new electric taxis (the amount depends on their range on a single charge). Support for charging points is also offered.

Woodland Carbon Guarantee Scheme

<https://www.gov.uk/guidance/woodland-carbon-guarantee>

This Government scheme, operated by the Forestry Commission, provides income over 30 years for those who plant woodland (not available for local authorities). The income provided is based on 'Woodland Carbon Units', a measure of how much CO₂ has been captured.

Appendix E

SOURCES OF INFORMATION AND EVIDENCE

Meetings

Cllr Adam Clarke (Deputy Mayor of Leicester and responsible for the City's Climate Change programme)
Cllr Mike Hallam (Northampton Borough Council Cabinet Member for the Environment) and NBC Officers
Cllr Sandra Barnes (chair) and members of South Northants Climate Change Working Group
Mark Partridge, CEO, Bright Green Renewables
Nigel Banks, Building consultant
Richard Wood and Margaret Howe, Planning Policy Officers, DDC
Joely Slinn, DDC Environmental Co-ordinator
Simon Bowers, Executive Director – Business, DDC
Sara Hayle, Advice Services Manager, Northamptonshire Community Law Service/Northampton Energy Saving Scheme (by telephone)

Councils

Councils whose climate emergency policy documents and plans have been examined include:

Bath
Cambridge
Camden
Oxford*
Leicester
Rugby*
Warwickshire**
West Sussex

* Contacts were made with these councils but unfortunately it was not possible to arrange meetings)

** We are grateful to Ian Jelley of the Warwickshire Wildlife Trust for information and the provision of a short presentation.

Residents and campaigners

We are grateful to the 50 residents who attended our public meeting in November and provided many ideas on how people can respond to climate change.

We are also grateful to Barby Parish Council which organised a meeting on climate change at which many useful suggestions were made.

We also received numerous emails from residents which proposals on action which can be taken.

Principal websites used

We have compiled the following list of the principal websites we have used in preparing this report – a number of other sites are referenced in footnotes. Local authority websites which we have studied are not included.

Committee on Climate Change

<https://www.theccc.org.uk/>

The CCC is an independent body established by the Government to provide advice on climate change. Its reports contain a wealth of information: those which we have found particularly useful are:

- 'Net Zero: the UK's contribution to stopping global warming'
- 'Reducing UK emissions: 2019 Progress Report to Parliament'
- 'Behaviour change, public engagement and Net Zero'

UK Parliament

<https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/1454/145406.htm>

Provides a useful summary of Government policies and aspirations.

Department of Transport

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/739460/road-to-zero.pdf

The 'Road to Zero' report sets out the Government's plans (as at July 2018) for reducing transport emissions.

See also appendix D for websites of the Department's Office for Low Emission Vehicles which provide information on grants available.

Department of Business, Energy and Industrial Strategy (BEIS)

<https://data.gov.uk/dataset/723c243d-2f1a-4d27-8b61-cdb93e5b10ff/emissions-of-carbon-dioxide-for-local-authority-areas>

This website contains an analysis of annual emissions for all local authorities, including Daventry.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/824592/industrial-fuel-switching.pdf

This detailed report, by Element Energy and Jacobs for BEIS, looks at the scope for alternative fuels being used in different industrial sectors.

Tyndall Centre on Climate Change, Manchester University

<https://tyndall.ac.uk/partners/university-manchester>

Website contains the Centre's proposed carbon budget for Daventry, and much more.

Centre for Alternative Technology

<https://www.cat.org.uk/info-resources/zero-carbon-britain/>

CAT's long Zero Carbon Britain report is recommended reading, covering the opportunities and well as the costs of responding to climate change.

Carbon Trust

<https://www.carbontrust.com/resources/reports/>

An extensive website covering all aspects of emissions reduction and including simple guides to the technologies available.

Energy Saving Trust

<https://energysavingtrust.org.uk/>

Good introductory descriptions of renewable energy technologies and other energy saving measures.

UK Green Building Council

<https://www.ukgbc.org/wp-content/uploads/2019/04/Net-Zero-Carbon-Buildings-A-framework-definition.pdf>

This report provides a very comprehensive set of recommendations for building design.

Royal Institute of British Architects

<https://www.architecture.com/-/media/GatherContent/Test-resources-page/Additional-Documents/RIBASustainableOutcomesGuide2019pdf.pdf>

The RIBA has set its members a '2030 Climate Challenge': this report describes how its targets, although ambitious, can be met.

Friends of the Earth

<https://friendsoftheearth.uk/climate-friendly-communities>

Friends of the Earth offers an analysis of emissions for each local authority, together with suggested targets.

Campaign Against Climate Change

<https://www.campaigncc.org/>

Although this is essentially a campaigning organisation, it includes information for local councils, including a list (<https://www.climateemergency.uk/>) of councils which have declared a climate emergency.

We have also made use of the many media reports on climate change issues which have appeared during the course of our work.