

CABINET

8 JUNE 2021

CLIMATE CHANGE ACTION PLAN AND MEDWAY NET ZERO CARBON BASELINE REPORT

Portfolio Holder: Councillor Howard Doe, Deputy Leader and Portfolio Holder for Housing and Community Services

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Summary

In April 2019, the Council declared a Climate Change Emergency and committed to establishing a clear action plan for Medway to deal with climate change, setting out an achievable and clear timeline.

This report provides:

- an update on the Council's response to the declaration of a Climate Change Emergency and presents the Climate Change Action Plan setting out the activities required to adapt and mitigate against climate change.
- an overview of the Medway Net Zero Carbon – Baseline & Pathway Report which has been commissioned so that the Council can understand its current carbon footprint and how it can reduce its emissions by 2050. It provides the evidence base which underpins the draft Climate Change Action Plan, setting out a series of interventions to reduce the Council's emissions by 95% by 2050.

1. Budget and policy framework

1.1. The declared climate change emergency in Medway fits with the Council Strategy priority '*Medway: A place to be proud of*' and the key outcome of a '*clean and green environment*'.

1.2. The formally adopted Kent and Medway Energy and Low Emissions Strategy (KMELES) (Appendix 1), forms part of the Kent Environment Strategy and

Implementation Plan. It is also relevant to the Kent and Medway Growth and Infrastructure Framework. The Strategy includes the commitment to meet the UK Government's target to achieve net-zero emissions by 2050 for the country. The KMELES is a key element of the Council's approach to tackling the climate emergency and has informed the Council's emerging Climate Change Action Plan.

- 1.3. The Medway Net Zero Carbon – Baseline & Pathway Report has been commissioned so that the Council can understand its current carbon footprint, how it can reduce its emissions by 2050 and provides the evidence base which underpins the draft Climate Change Action Plan. The report sets out a series of interventions to reduce the Council's emissions by 95% by 2050.
- 1.4. We acknowledge the Government's recent commitment to reduce emissions by 78% by 2035 however, for now, the Medway target will remain as net-zero emissions by 2050 (in line with the KMELES). We will monitor and assess opportunities to bring the reduction target forward, in particular responding to new funding opportunities as they are presented.
- 1.5. Progress towards the net zero carbon target will be dependent on Government funding being made available and successful bidding for funds, including joint bidding with Kent County Council and Kent's district councils. If funding doesn't become available, our actions will be limited.

2. Background

- 2.1. Full Council declared a climate emergency in April 2019 and passed a motion committing to:
 - *reduce its carbon footprint and provide the local community with a clean, green future and be a place people want to work and live, which has a sustainable future.*
 - *establish a clear action plan for Medway to deal with climate change, setting out an achievable and clear timeline.*
- 2.2. Following the declaration, a staff workshop was held in June 2019 to generate ideas from staff, identify actions already underway and gather ideas for further action. An internal steering group was formed to determine the direction of the actions.
- 2.3. In July 2019, a report was presented to the Cabinet setting out the Council's aspirations and approach to the delivery of an action plan. In particular, the Cabinet agreed the establishment of a cross party Climate Change Member Advisory Board. The board has met quarterly since September 2019 to oversee the direction of work.
- 2.4. In March 2020, a report was presented to the Cabinet setting out a draft outline action plan and progress since July 2019. The report also detailed the

decision on the 2020/21 budget, at Full Council on 20 February 2020, to allocate £100,000 to support climate change work.

- 2.5. The KMELES was formally adopted by the Council in January 2021. The Strategy has been approved by the Kent Chief Executives Group and Kent Leaders Group with the Leader as co-signatory. The objective of the KMELES is to outline a joint Kent and Medway approach to achieving a reduction in carbon emissions and improvements in air quality, with an agreed Kent and Medway target of net zero emissions by 2050.
- 2.6. Adopting the Strategy serves to not only acknowledge its relevance in setting out a consistent approach to net zero emissions but also realises the significance of working in partnership at scale. It offers an opportunity to pool the resources and expertise required to address the climate emergency, which Medway Council has committed to do.

3. Achievements

- 3.1. Since the Climate Emergency declaration, significant progress has been made. Some of the highlights are detailed below:

- Climate Change is now a core Council value.
- Work has continued to expand and improve upon Medway's cycleways, now at 80 miles, with a 20% increase in uptake of cycling last year. DfT awarded £242k during Summer 2020 to deliver measures to create an environment that is safer for walking and cycling.
- The delivery of an ambitious LED street lighting replacement programme has continued, further to a commitment of £11m.
- Heat District Network Feasibility and River Source Heat Pump studies are underway, further to a successful award of funding from the Department of Business, Energy and Industrial Strategy (BEIS).
- Work is underway to develop and implement Re:fit, a £12m retrofit programme across the Council's estate which will result in substantial energy and financial savings.
- A new web form for residents and businesses to support tree planting across Medway, by donating any amount of their choice, went live in November 2020.
- 13,842 small trees were planted across 10 sites in Medway in early 2021, further to an award from the Forestry Commission via the Urban Tree Challenge Fund.
- 30 miles of wildflower verges were created during 2020, allowing a wider diversity of wild grasses and flowers to thrive.
- An animated video has been produced to raise awareness of air quality and its effects and what to do to reduce these impacts. The video has been promoted to all schools in Medway and can also be accessed from the Council's website.
- An Electric Vehicle (EV) Charge Point survey has been developed and promoted on the Council website and through social media. The results of the survey are being used to inform a new 5- year Medway EV Strategy.

- EV charge points have been installed to support a trial of 6 Evs for staff business use. The scheme was successfully delivered in 8 weeks and will be monitored for a duration of 12 months, ending in November 2021.
- The Office of Zero Emission Vehicles has awarded up to 75% of the capital costs associated with installation of 34 EV charging points across three sites in Medway, with delivery planned for Summer 2021.
- Improvements have been made to the way the Council communicates about Climate Change by developing a dedicated web page, a Medway Climate Change logo, promoting national awareness days and behavioural change initiatives via social media and regular updates in Medway Matters.

4. The Baseline and Pathway Report

4.1. To inform our approach to reducing the Council's emissions, we commissioned a technical study to understand the Council's carbon footprint for a baseline year of 2018-19 (the year prior to declaring a Climate Emergency). The scope of the study includes emissions for which the Council is directly responsible:

- Direct emissions (Scope 1 and 2) from our estate and operations including gas heating, fugitive emissions, emissions from our small fleet vehicles and refuse collection vehicles (RCV's), electricity for council owned buildings and street lighting. It does not include Council owned housing except for energy supplied to communal areas and sheltered housing.
- Indirect emissions (Scope 3) staff business travel and water.
- *It does not include areas of indirect influence for example emissions from the delivery of services, Local Authority Schools, staff commuting and contracted out services, such as school transport and waste disposal.*

4.2. The study identified a series of interventions to put the Council on a path to reducing its emissions by 95% by 2050. The resulting Medway Net Zero Carbon – Baseline & Pathway Report underpins the Climate Change Action Plan.

4.3. The Council's carbon baseline for 2018/19 is 12,105 tCO₂e which represents approximately 1.4% of the total direct emissions in the Medway area. The main sources of emissions are operational buildings (heating and electricity) which account for 58% of the total emissions, street lighting at 23% and emissions from Council fleet vehicles at 11%.

4.4. The study uses the science-based target approach to reducing emissions at a rate that is in line with keeping global temperature rises below 1.5°C. This means that emissions will be halved every ten years as opposed to reducing emissions by a fixed amount every year. It sets the first carbon budget accounting period to 2027 and thereafter recommends 5-year intervals in line with the UK government carbon budgets.

- 4.5. The recommended first carbon budget allowance for the period 2020-2027 is 57,631 tCO₂e. This budget allocation will be our target against which we will monitor progress.
- 4.6. In order to meet the First Carbon Budget by 2027, interventions would include: energy efficiency measures within Council buildings, installation of Solar PV, LED lighting (in corporate buildings, carparks and housing stock) and an investment in a River Source Heat Network.
- 4.7. A full list of interventions can be found in Table 1 below. The interventions are sorted by implementation date and biggest carbon saving.
- 4.8. High level financial budget modelling based on current market conditions, indicate that an investment of more than £11.7m would be needed to meet the costs of these measures, which is far beyond existing allocated budgets.
- 4.9. The LED street lighting programme is already approved and fully funded and is outside of the estimated £11.7m. With the exception of Re:fit Phase 1, these are all desktop estimates subject to actual site visits, detailed design and appropriate procurement.

Table 1 – Summary of Interventions to stay within the First Carbon Budget

Intervention	Carbon Savings (tonnes)	% Reduction against Baseline	Implement latest	Estimated cost	Cost per tonne of CO ₂ e saved	Availability of Funding
Re:fit Phase 1 Buildings	809.00	6.68%	2021-22	£4,567,907.00	£5,646.36	Re:fit
Street Lighting to LED	1484.00	12.25%	2022-23	£11,155,144.00	£7,516.94	Fully funded
Low Carbon Heating	1063.68	8.78%	2022-23	£3,742,757.00	£3,518.69	Re:fit
Further solar PV in Buildings	180.54	1.49%	2022-23	£1,240,815.00	£6,872.80	Re:fit
Further LED Lighting Corporate	118.05	0.97%	2022-23	£354,143.16	£3,000.00	Re:fit
Further LED Lighting Housing	59.90	0.49%	2022-23	£179,689.62	£3,000.00	Re:fit
Vans Class II and III to EV	51.14	0.42%	2022-23	£580,145.00	£11,345.36	Part core funding (potential requirement for additional costs for EV solutions and infrastructure)
Further LED Lighting Carparks	22.46	0.19%	2022-23	Not available	Not available	Funding to be determined

River Source Heat Network	143.00	1.18%	2023-24	£889,831.80	£6,222.60	Funding to be determined
Controls Optimisation	59.50	0.49%	2024-25	£129,406.18	£2,175.00	Re:fit
Heating Controls	39.50	0.33%	2024-25	£32,824.50	£850.00	Re:fit

4.10. It is important Medway implements these measures within the First Carbon Budget, as the carbon savings achieved on electricity and renewable energy measures will diminish as the grid decarbonises.

4.11. Detailed work will be needed during 2021 to finalise the budget needs for 2022/23, and this will be part of the relevant actions in the plan. These will include:

- Revenue vs Capital needs
- Available external funding/Government Grant (such as the Social Housing Energy Efficiency Scheme recently announced)
- How existing plans/refurbishments can contribute (e.g. Re:fit Programme)
- Future Government interventions/programmes that may assist with the measures and reduce spend.

The above table excludes current initiatives that have been funded such as wild verging, tree planting and the proposal being developed for EV charging points in Council owned car parks.

4.12. Further interventions would also need to be considered by 2024-2026 to fully achieve the First Carbon Budget in line with the science-based pathway. These could include bringing forward the low carbon heating programme to start in 2021, bringing in additional measures to reduce emissions through staff business travel, accelerating the electrification of the Council's fleet, investment in solar farms and alternative energy. It is also important to remember that in some areas the technology is still not fully developed or proven. This is the case with the RCV's where there are still limitations on the electric battery technology for these heavy goods vehicles and therefore the electrification of this part of the Council's fleet is only modelled from 2030 onwards. Advances in alternative technology such as hydrogen power could expedite the move away from diesel RCVs, but these solutions are in very early days of development.

4.13. For this reason, the next step will be for the Council to undertake an options appraisal to determine which interventions are easier to implement and would have a better return on investment.

4.14. To allow for project set up time and delivery timescales the pathway does not show any significant savings before 2022. After the First Carbon Budget has been completed, it does assume continued efforts to keep within the remaining Carbon Budgets set in line with the science-based pathway. The

interim carbon budgets for this trajectory will be 2032, 2037, 2042 in line with government and our area wide carbon budgets. The Council will need to be prepared to deliver larger interventions after the First Carbon Budget has been completed (post 2027), such as exploring the potential for larger scale solar PV generation through acquisition from third parties.

- 4.15. If the Council follows the science-based pathway and undertakes all the recommendations in the report, by 2050 projected emissions will have reduced to 605tCO₂e (a 95% reduction on 2018/19 emissions). This final 5% could be achieved by developing renewable energy assets and using the energy generated or by planting trees. Each hectare of trees planted will sequester around 315 tCO₂e over a 100-year lifetime.
- 4.16. It is of the utmost importance that the Council identifies the resources necessary to keep to a science-based pathway, selecting and implementing interventions in a timely manner so that the Carbon Budget deficit is drastically reduced.
- 4.17. The study also considered a reduction scenario of net zero by 2030. However, this was not considered to be achievable for the Council at this point in time.

5. Climate Change Action Plan

- 5.1. The Action Plan reports on the current carbon emissions across Medway (the most recent national data set available is for 2018) and the main contributing sectors (domestic energy and transport). It sets out the key recommendations from the Medway Net Zero Carbon – Baseline & Pathway Report and identifies key areas of influence that we can work with our partners on to achieve the net zero carbon ambition across Medway. It is important to be reminded here of item 4.3; the Council's carbon footprint represents approximately just 1.4% of the total direct emissions in the Medway area, at 12,105 tCO₂e. While we recognise that we have a pivotal role to play in providing local leadership, this information shows the level of effort and commitment required, from as wide a range of people as possible including staff, residents, businesses, schools, local groups, suppliers, and visitors in Medway, to respond to the climate emergency. Everyone has a role to play.
- 5.2. The Action Plan aligns with the KMELES, adopted by Medway's Cabinet in January 2021, and, for consistency, applies the ten high level priorities as set out in the KMELES.

1. Emission Reduction Pathways to 2050
2. Public Sector Decision Making
3. Planning and Development
4. Climate Emergency Investment Fund
5. Building Retrofit Programme
6. Transport, travel and digital connectivity
7. Renewable Energy Generation
8. Green Infrastructure

9. Supporting Low Carbon Business
10. Communications

- 5.3. We have identified an 11th action – Resilience and Adaptation - which we feel is important to include in our planning.
- 5.4. The Climate Change Action Plan explores each of the priority areas identifying challenges and opportunities, progress made and proposed actions for the immediate, short term (2023) and long term (2030). Actions under each priority area are split into those that we can have a direct impact on such as our fleet and those that we can influence and work with our partners on, such as schools.
- 5.5. The actions focus on the following objectives:
- reducing/eliminating our carbon emissions through efficiency and renewable energy initiatives.
 - supporting others in reducing/eliminating their carbon emissions
 - promoting climate resilience
- 5.6. Progress against the Action Plan will be monitored, and a report will be presented to Cabinet twice a year. It is intended that progress will also be reported to the cross party-political Member Advisory Group on a quarterly basis.

6. Advice and analysis

- 6.1. The challenge Medway has set itself of reaching the target of net zero carbon by 2050, is not going to be an easy task to achieve. The Council needs to identify and secure the appropriate resources and funding to implement the interventions, ensure that climate change is a key priority for the whole organisation and is at the heart of everything the Council does and ensure we have fully costed projects ready for when funding opportunities arise.
- 6.2. The scale and pace of near immediate investment and change is clear. To ensure that the Council does not fall behind, it is important that any potential barriers are identified which could slow down progress and that they are removed or amended.
- 6.3. One of the key interventions set out in the report is the conversion of the Council fleet to ULEV vehicles, this is an area of work which the Council has already started to progress in respect of its smaller vehicles. However, this project has already encountered barriers, with the charging infrastructure which needs to be put in place. Before the EV charging points can be installed into the car park at Gun Wharf, the power network needs to be upgraded by running a brand-new electricity supply from National Grid into the car park, with the associated ground works, and then the installation of the electrical plant/distribution boards, at an estimated cost of more than £100k to the Council. This is before the cost of the installation of the EV charging points.

- 6.4. This demonstrates the scale of the problem with EV power points, even on a relatively simple project to enable the replacement of lease vehicles with ULEV. It goes to highlight the barriers which the Council is coming across with the interventions required.
- 6.5. The level of infrastructure required to charge the RCV's will obviously be on a much larger scale, with much higher financial costs for the power network and ground infrastructure even before the increased costs associated with EV fleet purchase are factored in.
- 6.6. The intention of the Action Plan is to recognise the climate emergency and the role of the Council, along with our partners, in achieving net zero carbon emissions by 2050. The challenge Medway has set itself is not going to be an easy task to achieve. If we are going to achieve this target, significant joined up action is needed in the next 10 years.
- 6.7. The Council needs to identify and secure the appropriate resources and funding to implement the interventions, ensuring we have fully costed projects ready for when funding opportunities arise. It will be important to ensure that climate change is a key priority for the whole organisation and is at the heart of everything the Council does.
- 6.8. Embedding climate change in policies and service delivery will require consideration is given to sustainability through:
 - running the Council's estate in a more sustainable manner
 - ensuring that all services consider the sustainability implications of their actions and work to reduce negative impacts
 - encouraging others in Medway to consider sustainability through sharing good practice and exercising an external influence on suppliers and peers.

7. Risk Management

Risk	Description	Action to avoid or mitigate risk	Risk rating
Financial	<p>There is a risk that the actions in the Action Plan cannot be fully funded and resourced at the scale required to achieve the necessary speed of change.</p> <p>Potential lack of Government funding to help Medway progress our ambitions.</p> <p>This could result in not being able to meet expectations at pace and the overall net zero carbon emissions.</p>	<p>The development of a robust financial strategy.</p> <p>Key officers on constant review of external funding sources.</p> <p>Full consideration of the financial/resource implications to be made before each action/project commences.</p>	B II
Political/ Reputational	<p>The climate change action plan is not formalised and resourced.</p> <p>Doing nothing would result in maintaining existing emissions in both the Council's own operations and across the whole of Medway which would have a negative impact on climate change. It would also negate the clear intentions and objectives of the Climate emergent declaration.</p>	<p>Formal approval and commitment to delivery of the Climate Change Action Plan and a commitment from across the Council to resource the actions necessary.</p>	C II
Lack of support from the public	<p>Lack of engagement on the Climate Change Action Plan could result in a damaged relationship with the wider community, mistrust and lack of support for the plan resulting in progress being hindered. It could also lead to potential negative media and press coverage.</p>	<p>Develop a comprehensive Communication and Engagement Strategy</p>	C II

8. Consultation

- 8.1. The action plan has been developed with consultation across the Council services and teams, including relevant management teams.
- 8.2. The action plan was also presented to the Climate Change Members Advisory Board on 20 April 2021 for discussion and review and was positively received.

Members were invited to submit comments by 7 May 2021 and these have been considered for inclusion in the plan or within the next iteration.

- 8.3. It is intended that the Action Plan will be a live document and will be reviewed formally on an annual basis. This review will include input from partners and the wider community.
- 8.4. An engagement plan, based on best practice from other local authorities, is being developed for wider discussion of the Action Plan with community and other stakeholder interest groups, both internal and external during 2021 and on an ongoing basis.
- 8.5. To aid engagement a summary version of the action plan will be produced, following the endorsement of this plan, highlighting the key messages and actions. The summary version will be published on our website, alongside the version presented to Cabinet, and elements extracted and promoted via social media channels.
- 8.6. Officers have already started engaging with some key stakeholder groups including the Medway Placemaking Board, the Medway Learning Partnership and Medway Champions on the draft action plan.
- 8.7. The Council has developed a comprehensive Diversity Impact Assessment (DIA) process to ensure policies reflect potential impact on residents due to their racial group, gender, disability, sexual orientation, age, and religion. In line with this the first stage of a DIA has been carried out (Appendix 3). The findings of this indicate the plan does not need a full DIA in this area, rather further DIA's will be undertaken for individual projects in the action plan as required.

9. Climate change implications

- 9.1. The Action Plan is intended to have a direct positive impact on climate change and the Council's aspirations of reaching net zero carbon emissions by 2050. The impact will be monitored and reported through Service Plans, the Climate Change Member Advisory Group and Cabinet.
- 9.2. The Medway Net Zero Carbon – Baseline & Pathway Report is intended to support the development of the climate change action plan and ensure that the Council reaches its net zero carbon aspirations by 2050. So thus, this report will have a direct positive impact on climate change.

10. Financial implications

- 10.1. As actions are developed, the supporting evidence and any cost implications will be identified, and the business case outlined through the appropriate governance processes. Tackling the climate emergency will require the Council to develop a robust financial strategy and commitment to a significant level of investment, which is far more than the existing budget provision. Aside from the LED street lighting, which is already within the capital

programme as an invest to save scheme, high level financial budget modelling based on current market conditions, indicate that an investment of more than £11.7m would be needed to meet the costs of these measures. Most of this would be delivered under the Re:fit programme, with the borrowing funded from the longer term energy savings generated, however officers will continue to identify and explore and respond to potential funding opportunities.

11. Legal implications

- 11.1. The Climate Change Act 2008 places national targets on the reduction of emissions by 2050. The Council has powers to do anything an individual could, under the power of general competence in the Localism Act 2011. This includes taking steps to reduce Council emissions, which contribute to the local and national targets.

12. Recommendations

- 12.1. The Cabinet is asked to agree to adopt the current Climate Change Action Plan as set out at Appendix 1.
- 12.2. The Cabinet is asked to agree to delegate authority to the Director of Place and Deputy Chief Executive, in consultation with the Deputy Leader and Portfolio Holder for Housing and Community Services, to establish arrangements for oversight of the Climate Change engagement and consultation programme as the next phase of activity.

13. Suggested reason for decision

- 13.1. To support and uphold the Climate Emergency declaration and action against the net zero carbon targets.

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Appendices

Appendix1: Climate Change Action Plan – June 2021

Appendix 2: Medway Net Zero Carbon – Baseline & Pathway Report V4 - March 2021

Appendix 3: Diversity Impact Assessment

Background papers

Climate Emergency Declaration – Full Council - April 2019:

<https://democracy.medway.gov.uk/ieListDocuments.aspx?CId=122&MId=4160&Ver=4>

Climate Change Report – Cabinet – July 2019:

<https://democracy.medway.gov.uk/ieIssueDetails.aspx?IId=25887&PlanId=0&Opt=3#AI21212>

Climate Change Action Plan Progress Report – Cabinet Report – March 2020:

<https://democracy.medway.gov.uk/ieIssueDetails.aspx?IId=26956&PlanId=0&Opt=3#AI22163>

Kent and Medway Energy and Low Emissions Strategy Cabinet Report - January 2021:

<https://democracy.medway.gov.uk/ieIssueDetails.aspx?IId=29741&PlanId=0&Opt=3#AI24574>

Link to recording of Climate Change Member Advisory Group meeting – April 2021

<https://democracy.medway.gov.uk/ieListDocuments.aspx?CId=539&MId=4950&Ver=4>