North Lanarkshire Council
Report

Environment & Transportation Committee

☒approval ☒noting **Ref** RS/JMcK/LS **Date** 06/05/20

Response to declaring a climate emergency

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Executive Summary

The council's climate emergency declaration in 2019 was an acknowledgement of the crisis that the planet faces. It is acknowledged that the total emissions over the period to 2030 should be reduced through accelerating action where possible and the use of carbon budget setting is the most appropriate mechanism for this. Achieving absolute zero emissions by 2030 is not a realistic ambition and whilst this will be the ultimate goal, the focus should initially be on achieving 'net zero' emissions by 2030 supported by the inclusion of natural occurring carbon dioxide capture systems (sequestration) such as forestry and peatlands and also in partnership with our key external stakeholders. A key element for driving progress in this area will be clear actions which are fully resourced. The rate of decarbonisation within the area will require the council and partners to take progressive action, innovate and embrace new technologies. This will require an unprecedented financial commitment and will require collaborative funding options as well as maximisation of external resources.

Recommendations

- Approve a target to move to 'net zero' emissions by 2030;
- Approve the revision of the current Carbon Management Plan and its extension to 2030;
- Approve the development of an Energy Policy for the corporate estate;
- Approve the development of an adaptation plan for the council; and
- Approve the consultation with stakeholders on the development of a strategic approach to emissions, of which the outcome will be reported back to committee.

The Plan for North Lanarkshire

Priority All priorities

Ambition statement All ambition statements

1. Background

1.1 In 2015 the United Nations Framework Convention on Climate Change (UNFCCC) 'Paris Agreement' detailed its aim to reduce emissions as quickly as possible, aspire to halt global warming and prevent a rise in temperature of a further 2^{o}C. The agreement came into force on 4 November 2016. Following this, the 2030 Climate and Energy Framework was revised in 2018 with an increase on previous targets:

- Reduce greenhouse emissions by (at least) 40% ;
- To meet (at least) 32% of EU energy needs with Renewables;
- Reduce energy consumption by (at least) 32.5% by 2030.

1.2 In Scotland, the legislation has constantly looked to go beyond these targets. The Climate Change (Emission Reduction Targets) (Scotland) Act 2019 amended the original Climate Change (Scotland) Act 2009 with a new net zero target on all greenhouse gas emissions for 2045 focussing on three sectors: industry, agriculture and transport.

1.3 On 20 June 2019, the council agreed to declare a climate emergency on the basis that '*anthropogenic fossil fuel driven climate warming has now reached an unprecedented phase which justifies a climate emergency to be declared at a local, national, and international level and accordingly a climate emergency across North Lanarkshire be declared'*, working to a target of zero emissions if feasible.

2. Internal Controls

2.1 The wording of the climate emergency declaration was very clear in that the council should now look beyond its own emissions and work towards a zero emission target for North Lanarkshire. A response is required and the content of this report looks to outline the strategic approach to this.

2.1.1 The zero emission target differs from the definition of carbon neutral or net zero and it is highly unlikely that it will be achieved through the sole use of technology, waste reduction or implementation of energy efficiency measures. It is recommended therefore that the Council should pursue a policy of 'net zero' emissions by 2030 through the limited use of sequestration and offsetting. The move towards the more ambitious 'zero emissions' will be worked on in parallel. Further detail as to when true 'zero emissions' could be achieved can be developed over the coming years and will reflect changes in technology and legislative requirements.

2.1.2 Zero emissions does imply the increased use of renewables, decarbonising the local energy system as well as adopting a circular economy approach, to reduce waste. Meeting the target will require a review of how the council procures goods and services, and its approach to asset management including new build (both domestic and non-domestic).

2.1.3 The council has been successful in reducing its carbon emissions with the most recent footprint (2018/19) reported as 97,900 tCO2e, a reduction of 16.38% from the revised 2015/16 baseline, exceeding the 2018/19 target by 9,188 tCO2e. This has been achieved through the delivery of a number of actions some of which are detailed below:

Table 1 Summary of Carbon Management Projects

Projects		Cost of Project (£)	Energy Savings (£)	tCO2e savings
NDEEF Energy Conservation Measures	Phase 1 - (Delivered and fully implemented)	1,388,516	196,018	628
	Phase 2 – (savings to be realised)	1,386,764	162,856	409
LED Light Conversion	LED Street Light Conversion (savings to date)	14,000,000	663,874	2,243

2.1.4 The delivery of targeted projects such as the street lighting LED project has and will continue to contribute to reducing and stabilising carbon emissions. Non-domestic retrofit energy efficiency projects have been benefited from the replacement of the Central Energy Efficiency Fund with Salix monies to establish a new cyclical ring fenced fund, and the use of the Non Domestic Emergency Efficiency Framework. To date, the council have utilised £2,343,760.83 of Salix monies, match funding to deliver energy efficiency projects within its buildings. The release of the second phase of the framework is expected to continue assisting the council to deliver guaranteed carbon savings.

2.1.5 There are other external resources that the council can utilise for project delivery and changing behaviours. Through participating in the Energy Savings Trust's 'Fuel Good Driver Training' the council has looked to reduce its' fleet emissions. At time of writing the council's low emissions vehicle fleet stands at 31 (5 hybrids and 26 fully electric vehicles).

Reduction in Mileage

2.1.6 Introduced prior to the baseline year, pool car use has expanded within the council since 2015 and has contributed to the reduction in the council's footprint. The increased implementation of the smarter working policy to allow home working, supported by the increased capacity and reliability of connections and digital technology, continues to eliminate the need to travel for meetings and other unnecessary journeys through the use of software such as 'Skype for Business'. As the digitalisation programme progresses, it will further support mobile and home working, and other activities within the council such as the Asset Rationalisation Strategy.

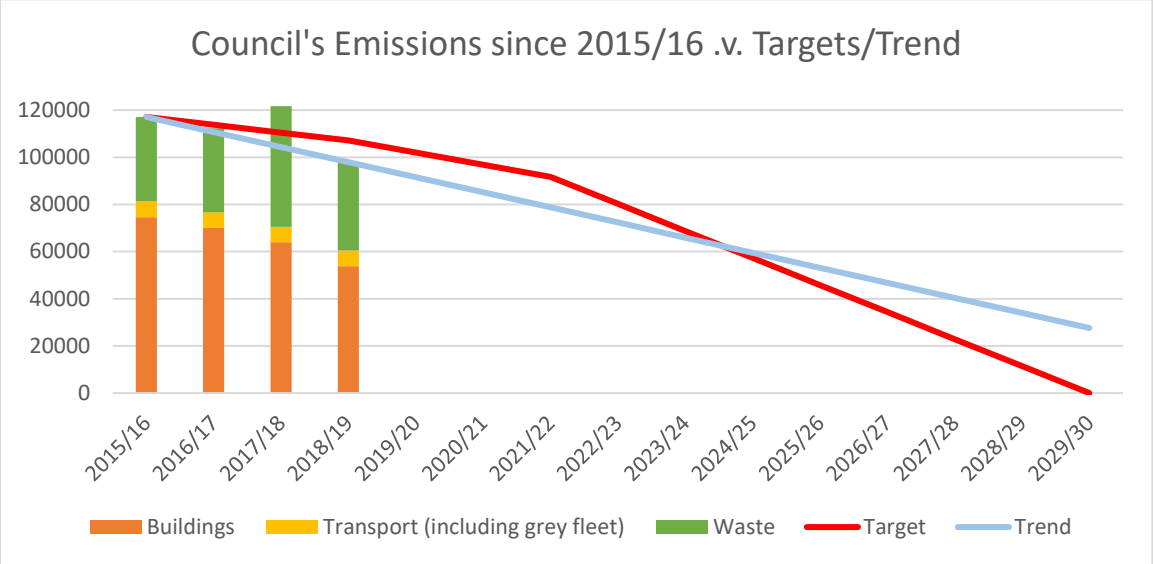
Reduction in Waste to Landfill

2.1.7 The Clyde Valley Residual Waste Project has commenced and will divert 92% of the waste collected under the contract away from landfill to be incinerated for energy recovery. This will provide significant reductions in terms of waste emissions for the council.

Carbon Management Plan

2.2 The Carbon Management Plan 2019-2022 was approved on 1 May 2019, the month prior to the council's climate emergency declaration. The plan contained a new target of 91,665 tCO2e to be achieved by March 2022 that was based on the assumption that the 2019 target would be met, not exceeded.

Figure 1 North Lanarkshire Council Emissions



2.2.1 The end-of-plan performance (2017-19) (figure 1) requires the revision of the 2022 target, however in light of the declaration, the revised plan will require a series of targets and carbon budgets, to provide a pathway to net zero emissions by 2030. Whilst targets will provide the percentage reductions from the baseline year, carbon budget setting uses the cumulative carbon dioxide emissions permitted in line with the Paris Agreement, to limit emissions over a period of time.

2.2.2 Carbon reductions within the council are currently driven by targets and this facilitates a steady decline in emissions, whereas carbon budget setting will require new ways of working, innovation and the embracing of new technologies to stay within the limits of the budget set.

2.2.3 It is proposed that a full revision of the plan should be undertaken, utilising a carbon budget approach, with a view to it becoming a living document where project information can be added in real time, leading up to 2030.

2.2.4 The largest proportion of the council's emissions are through use of buildings which equate to 55% of the council's emissions. In line with the recommendations of the Committee on Climate Change, this should be the council's primary focus, along with transport and waste.

2.2.5 In lieu of impending climate strategy, the council can fully implement initial no-regret actions as these will contribute to energy consumption reductions and therefore lower emissions. An examples of this is:

- Smarter working policy – encouraging staff who meet the appropriate criteria to undertake mobile or home working, supported by an IT capacity to reflect the volume of users which in turn will also reduce the overall travel required by employees. The council's response to COVID-19 has shown that the council are able to make these changes which has also seen a temporary reduction in buildings in use. This may be an opportunity to accelerate further asset rationalisation and also supports the council's vision to establish community hubs.

2.2.6 In addition to this, the council should consider developing:

- an energy policy for the corporate estate to define the scope of energy use within its buildings;
- a plan to address the medium and long term needs of the council in response to climate change i.e. an adaptation plan and so would consider all aspects of council activities.

2.2.7 To compliment the above list, it is proposed that a communication plan aimed initially at affecting behaviours towards energy efficiency and wider sustainability should be created and implemented within the next year. Focussing on things that can be done at work such as turning off equipment not in use, behaviours at home, reducing domestic emissions and providing savings in energy bills.

Future Planning

2.3 Within the council's Environment Strategy are key strategies and plans that contribute to emission reduction wider than the council's carbon boundary. The council's emissions equate to 4.28% of emissions within North Lanarkshire. With a significant portion of emissions outwith the council's influence, it suggests a different strategic approach will be required to make a notable difference within different sectors. A standardised approach has been used to calculate the North Lanarkshire emissions and will enable the council to consider monitoring and reporting of this to external bodies such as the Carbon Disclosure Project (CDP) and the Global Covenant of Mayors Reporting Framework.

2.3.1 Of the total North Lanarkshire emissions, transport (on-road) accounts for 35% and residential emissions is 28%.

Table 2 North Lanarkshire Emissions by Sector

Sector	Total tCO2e
Stationary energy	1,207,682
Transportation	1,001,949
Waste	118,152
Industrial Process & Product Use	39,815
Agriculture, Forestry & Other Land Use	-78,986
Generation of grid-supplied energy	30

2.3.2 Transport is one of the key areas that should be focussed on whether it is transportation of goods, public transport or private vehicle use (Table 2). The Scottish Government aim to gradually remove the need for petrol or diesel vehicles (cars and vans) by 2032. As at 31 December 2019, there were 14,785 low emission vehicles (including hybrid) in Scotland with 368 in use in North Lanarkshire. The council has entered into a strategic partnership for electric vehicle charging infrastructure with Transport Scotland, Scottish Power Energy Networks and South Lanarkshire Council. The project will see creation of a network of community charging stations at key locations, available for community use, free of charge in the first instance. Other than improving the vehicle charging provision, the council has no direct influence on consumer behaviour however the council have committed to increasing its LE fleet and so are visibly supporting this agenda.

2.3.3 The Efficient and Cleaner Operations (ECO) Stars Fleet Recognition Scheme which is delivered by councils aims to support organisations who are making changes to their fleet (buses, coaches and goods vehicles) in order to improve their efficiency and emissions by reducing fuel consumption. Scheme members' participation contributes to improvements in air quality, a reduction in overall emissions and to the climate change agenda. The continued promotion of this scheme facilitates the reduction of transport emissions however is reliant on private business participation.

Stationary Energy

2.3.4 Energy use within buildings accounts for the majority of emissions within North Lanarkshire. Buildings include those owned by businesses, industry, the council estate as well as all tenures of residential. Each will require a different approach and the use of different measures and technology to reduce emissions.

2.3.5 The social housing sector accounts for 36% of domestic buildings in North Lanarkshire, with the council's stock accounting for two-thirds of this. The council's current performance in terms of the revised Energy Efficiency Standard for Social Housing is 79.3% (2018-19). The Scottish Government anticipates the revised version of the standard will reduce carbon emissions by 56% by 2020 and 75% by 2030. The council's new build social housing programme's priority is to provide sufficient new supply to address 'housing need' within the area. It currently builds to a bronze level of the sustainability standard. The Local Housing Strategy covers all tenures and aspects of housing and in line with the Scottish Government guidance will include actions on climate change and fuel poverty in the new strategy scheduled for 2021.

2.3.6 Planning has a key role to play by facilitating sustainable development, protecting greenspace through land use, and promoting active travel through the appropriate infrastructure as well as supporting an increase in local renewable technologies.

Waste

2.3.7 The council's Single Use Plastic Strategy looks to reduce plastic items that are designed to only be used once from within the council. This will have an impact both internally and externally to the council as it will feed into the supply chain of all service areas. The Clyde Valley Residual Waste Project has commenced and diverts waste from landfill and it is incinerated for energy recovery. This will provide significant reductions in terms of waste emissions for the council.

2.3.8 As per the report to August committee, the Deposit Return Scheme will see a reduction in waste and improve the quality of materials recycled. This will contribute to further reductions in emissions resulting from waste disposal.

Land Use

2.3.9 Forestland and grasslands account for 78,986tCO2e sequestrated carbon in North Lanarkshire, removing carbon dioxide directly from the atmosphere, reducing the overall footprint to 2,288,640.92 tCO2e. There is already significant investment in this by the council and partners, and so cannot be relied on to deliver further reductions. The Biodiversity Strategy will continue to support, maintain and protect peatlands, whilst the proposed Tree Asset Management Strategy will look to keep council owned greenspace areas safe from tree failure as well as maintain sequestration levels.

When accounting for emissions, the use of sequestration and carbon offsets will be restricted to neutralising unavoidable emissions within the area.

2.3.10 In line with the Paris Agreement, within the future development of a wider strategy, carbon budget setting will focus primarily on the reduction of carbon dioxide emissions and be based on the equity principles of this agreement. Given the diversity of emissions in North Lanarkshire and the limitations of the council to impact on these, it is proposed that the council consult with stakeholders such as businesses, transport companies, and industry for their views on developing a North Lanarkshire Climate Strategy. This would be in tandem with an internal consultation with services, to enable identification of further wider actions from within the council.

3. Equality and Diversity

3.1 Fairer Scotland Duty
There is no identified detrimental socio-economic impact resulting from the proposals contained within this report

3.2 Equality Impact Assessment
There is no impact on the council's requirement to meet the public sector equality duty resulting from the proposals contained within this report.

4. Implications

4.1 Financial Impact
Services will be required to identify available monies to accelerate actions to achieve carbon budgets. The cost of achieving zero emissions in North Lanarkshire has yet to be identified, however it is acknowledged that it will place significant pressure on already constrained service budgets and will require additional finances to fully address the climate change agenda (mitigation, adaptation and sustainability) in support of the declaration of a climate emergency. Whilst costs will be significant, the council will realise benefits such as limiting the impact of climate-related risks and wider benefits such as energy security, improved health in its population etc. To progress this, addressing gaps within dedicated climate change staffing will also require funding and will be subject to a future paper to committee.

4.2 HR/Policy/Legislative Impact
Consideration is to be given to extending the level of dedicated staffing to resource climate change (as per 4.1) as there is currently only a single officer seconded until March 2021.

As referred to earlier in the report that the response to the climate emergency requires a holistic approach and therefore supporting staff to work from home should be fully utilised,

The Climate Change (Scotland) Act 2009 targets remain under continuous review and are amended in response to available science and advice of the Intergovernmental Panel on Climate Change (IPCC). Therefore, although the council's own declaration goes beyond the national target timescales, it may be that a further review of activities, targets and carbon budgets will be required to respond to future legislative development.

4.3 Environmental Impact
Future strategy development proposed within this report will be subjected to the appropriate level of Strategic Environment Assessment (SEA) as identified at the pre-screening stage. Individual services are responsible for the environmental assessment of their own strategies, policies and plans that may arise from the content of this report.

4.4 Risk Impact
As part of the adaptation planning a thorough climate risk assessment will be completed and incorporated within the climate change section of the risk register.

5. Measures of success

5.1 Introduction of carbon budgets for council emissions

5.2 Development of a climate strategy for North Lanarkshire

5.3 Reduction in carbon emissions to net zero by 2030

6. Supporting documents

6.1 Glossary

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Appendix - Glossary

Term	Explanation
Adaptation	Is adapting to climate change. Adjustments need to be made because of the current changes in our climate and weather we are experiencing as well as projected changes in these. This is not limited to environmental impacts. For example as we expect more wetter, but warmer summers our buildings will need to be able to cope with these high temperatures and the rainwater systems such as downpipes and gutters will need to be able to cope with heavier rainfall.
Carbon boundary	Is not a geographic boundary rather it is an organisational boundary. It contains an organisation's (such as the council) known emissions that it has an element of control and these can be direct emissions of energy use or indirect i.e. as a consequence of using energy. Although the council has partial control of the emissions caused by waste disposal, water and business travel, these are included as they fall within operational and/or financial control. It does not include staff commuting or domestic emissions as these are wholly outwith the council's control.
Carbon budget	Is based on carbon dioxide emissions (CO_2) and looks at what emissions are projected over a certain time period and then sets staged limits to these emissions. This will result in a reduction of accumulative emissions. The carbon budgets discussed within this report are a part of a global approach to limiting accumulative emissions to try to prevent the increase in global temperature well below 2°C and pursuing 1.5°C. North Lanarkshire's accumulative emission budget is set at 11.1 million tonnes of carbon dioxide over an 80 year period and is expected to be breached by 2027 without intense intervention.
Carbon capture (and storage)	Is the process of capturing carbon dioxide from its source or from the air, storing it (sequestration) and thus preventing its harm. There is technology that can do this (primarily in the oil and gas industry) however it also occurs naturally in trees, peatlands and our oceans.
Carbon dioxide	A naturally occurring gas however can be produced by the burning of fossil fuels and biomass, and other activities. It is CO_2 generated by human activities that is the main driver for climate change.

Term	Explanation
Carbon disclosure project	Is an international non-profit organisation that looks to promote organisations such as companies, states, cities or regions to disclose their environmental impact. CDP support these organisation to manage climate risks and opportunities and carries an independent scoring of progress made.
Carbon Neutral	Is the balancing the level of emissions against negative emissions to achieve 'net zero'.
Central Energy Efficiency Fund	Also known as CEEF. It was a fund launched in 2004 by the Scottish Government to facilitate projects which contributed to the reduction of carbon emissions within the public sector. North Lanarkshire Council received an award totalling £929,539 from 2014-2016 and as savings were reinvested into the fund, 95 projects were supported through a total spend of £2,861,136.02. The fund ended in 2016.
Circular economy	Is a system where needless waste is eliminated, related emissions are reduced and finite resources are protected.
Climate and Energy Framework	Is a framework for European climate and energy policies and looks to address issues such as emissions, reliability on energy imports, and improve the energy infrastructure.
Climate Change	Any notable change in the measures of climate such as temperature, rainfall, wind patterns that occur over a period of time.
Climate Emergency Declaration	Is a declaration that immediate action is required, acknowledging that the planet faces a 'climate emergency' through global warming.
Committee on Climate Change	Is a non-departmental committee which advises central and devolved governments on climate change. It sets 5 year carbon budgets for the UK.
Decarbonisation	Is the reduction, leading to eradication of, carbon emissions. Decarbonisation can be employed in a number of sectors such as heat, electricity, transport etc.
Emissions	For the purpose of this document, this refers to gases that are released into the atmosphere.
Energy Savings Trust	An enterprise that promotes energy saving, energy efficiency and sustainable energy to groups, communities, businesses etc. through the provision of advice, assistance, thematic loans/grants.

Term	Explanation
Equity principles (of Paris Agreement)	Recognising that all nations have a common but different responsibility and capability (including economic) to take action against climate change i.e. developed countries as opposed to developing countries.
Footprint	The total of the greenhouse gases emitted into the atmosphere. For the purposes of this report, the footprint referred to is solely that of North Lanarkshire Council.
Fuel poverty	A household is in fuel poverty when it cannot afford to heat their home adequately or at a reasonable cost. The Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act 2019, refocussed the Scottish definition to a household is in fuel poverty if after paying its housing costs, it uses more than 10% of its net income to heat their home to a reasonable adequate level. In addition to this, once fuel, childcare and housing costs (as well as other 'need' costs) are paid, if the household are unable to sustain an acceptable standard of living it is also deemed in fuel poverty.
Fuel Good Driver Training	Is a subsidised 1-2-1 training programme for drivers of vans or cars to be more energy efficient in their driving leading to savings in fuel consumption and reduction in emissions. The training also teaches the driver to be a more careful driver and there is less wear and tear on vehicles.
Global Covenant of Mayors Reporting Framework	Is a common reporting framework used by the alliance of cities and local governments who are committed to climate action (mitigations, adaptation and sustainability) to standardise sharing of information.
Greenhouse emissions	A gas that allows the sun's rays to reach the earth but prevents them from leaving the atmosphere. By doing so, greenhouse gases contribute to warming of the planet and is known as the 'greenhouse effect'. This effect does occur naturally and is necessary to allow life to exist on the planet however human activity causes excess gases mainly through its use of fossil fuels. These extra emissions cause the planet temperature to increase and is known as 'global warming'.
Grey Fleet	Personal cars used by staff to travel for business purposes.
Inter Panel on Climate Change	A panel of scientists employed by the United Nations to assess climate change.

Term	Explanation
Mitigation	A deliberate act taken to reduce the human impact on the climate. (To do no further harm to our planet).
Non Domestic Energy Efficiency Framework (NDEEF)	Developed by the Scottish Government to provide a framework to deliver the retrofit of energy efficiency works to existing non-domestic public buildings or grounds.
Net zero	Is where the focus is on reducing greenhouse gas emissions to its greatest extent and the limited use of carbon capture for remaining emissions.
Offsetting	Is creating carbon reductions to counteract emissions elsewhere. There are certified schemes for this such as those using the woodland carbon code.
Renewables	Energy resources that by their nature reoccur such as wind, solar, hydro, geothermal etc.
Salix	Funded by the Department for Business, Energy and Industrial Strategy (BEIS) and the devolved governments. They provide loans to public bodies and also financially support through match-funding via a repayable grant, recycling funds. The council have used this option to establish the replacement fund of CEEF.
Sequestration	Is the natural occurring or a man-made process which removes emissions from the atmosphere, and in storing prevents their subsequent release.
Social Housing Sector	Refers to housing owned by councils and registered social landlords.
Stationary Energy	The council's sources of stationary emissions are electricity, natural gas, gas oil (including kerosene) and, the supply and treatment of water i.e. those mainly associated with the use of buildings.
Strategic Environmental Assessment	Is a statutory assessment of the environmental impact of public plans of local authorities, universities etc. and looks to limit the end-effect on the environment. All council plans and strategies are subject to this duty.
Sustainability standard	Incorporated within the building standards as per the Building (Scotland) Act 2011. There are different levels that can be achieved from bronze through to platinum depending on the measures incorporated within the building, reflecting the level of commitment to sustainability.

Term	Explanation
tCO2e	Tonnes of carbon dioxide equivalent is used to convert other greenhouse gases so that they be compared under against one standardised unit of carbon dioxide.
United Nations Framework Convention on Climate Change	Is an international treaty to stabilise greenhouse gas emissions. It was first agreed at Rio in 1992 and has been subsequently revised through key summits (also known as the Conference of Parties [COP]) with the Paris Agreement being the most significant to date.
Zero emissions	For the purpose of this report this refers to where there are no emissions released into the atmosphere and sequestration and offsetting is not used to achieve this.