

A strategy for Wirral in the face of the global climate emergency

December 2019

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FOREWORD

The latest scientific evidence¹ about climate change paints a worrying picture. It makes clear we must get rid of all climate damaging pollution fast. Damage caused by past pollution is already with us. If we continue to pollute, we are heading towards catastrophe.

By taking responsibility now we can begin to protect ourselves and our families from the dangers we face. Locally much of what we hold dear is at risk from climate disruption: our lifestyles; the places we love; the sports we watch and play; the food we enjoy; and our treasured wildlife and wild spaces. As a coastal peninsular, sea level rise is a direct threat too.

Whilst the costs of doing nothing about climate change will be high, the potential benefits from doing the things we need to do are many. The challenge we face creates a huge opportunity to improve our health, economy and environment. We can't afford for Wirral to miss the opportunity.

We already know many of the things we need to do to tackle the climate crisis. We are not starting from scratch. We have been working together to co-ordinate action for several years. Many objectives from our original strategy² were met. Hundreds of actions were taken in support. We have built valuable relationships. We have also learned valuable lessons along the way. Useful foundations are now in place. Carbon dioxide (CO₂) pollution from Wirral has been falling – though not fast enough. Well done to everyone who has helped so far. Now the evidence has changed, we need to ramp up local efforts to make faster progress. We need to cut climate damaging pollution altogether. We face an emergency and we all need to act fast.

We know that people in Wirral believe the climate is changing and want to do something about it³. We need your help to turn this desire into widespread practical action. In the face of the global climate emergency, the Cool 2 strategy sets out a local path towards safety. By taking this path individually we can all make a difference; by moving together we can succeed.

Cool Wirral Partnership

The Cool Wirral Partnership champions and co-ordinates local action on climate change. It is supported by, but independent of, Wirral Council. At the present time, the partnership includes representatives from Wirral Council, Wirral Environment Network, Energy Projects Plus, Faiths 4 Change, Peel Land and Property, Merseytravel, Merseyside Police, Magenta Living, Forum Housing, Wirral University Teaching Hospital NHS Trust, Wirral Chamber, Merseyside Recycling and Waste Disposal Authority, Planet Heswall and Community Action Wirral. The membership of the partnership has evolved over time.

¹ IPCC (2018) Special Report on Global Warming of 1.5°C

² Wirral Climate Change Group (2014) Cool, Wirral Climate Change Strategy 2014-2019

³ Nicola Moss & Joe Wheeler, Ipsos MORI North, (2017) Residents' Survey 2017

If you read nothing more...

Everyone has a part to play stopping unnatural climate change. Failure to act will have huge costs but doing the right thing will bring many benefits. Cool 2 indicates where we need to be, the direction of travel to get there, and some early steps so we can move quicker.

In Wirral, to meet our fair share of the global effort to tackle climate change we need:

- Deep and fast cuts in climate damaging pollution. We must reduce carbon dioxide (CO₂) pollution by around three and a half times more each year than we have achieved so far to stay within our local 'budget'. We must get rid of nearly all climate damaging pollution from Wirral by 2041 *at the latest*

To limit the impact of a changing climate locally we need to:

- Recognise that climate change has started and the impacts are with us now
- Be better adapted to extreme weather patterns and rising seas
- Take a long-term view and make changes now, before we are hit with even greater extremes

To make progress together we must see:

- A swift reduction in demand for energy across all sectors - business, industry and household. At least 100,000 homes alone need upgrading to be more energy efficient over the next ten years.
- A complete switch to clean 'zero carbon' energy sources by around 2041
- A complete shift to fossil fuel free local travel by around 2030
- Wiser decisions so we don't add pollution indirectly. This means changes to our diets with less meat, a big reduction in waste, and more careful choices about what we buy and how we live and work
- More trees and woodlands to capture and store carbon naturally
- A greater understanding of climate risks both now and in the future
- Changes to the way we do things in order to limit disruption from changing weather patterns
- Much wider understanding about the climate crisis and the actions we must take
- Increased investment to match the scale of the challenge
- Stronger partnerships and networks to drive progress
- Better use of data to inform our actions

Working together we can have a bigger impact. We must all identify and take further actions⁴. Cool 2 establishes a mechanism to drive local progress. It calls on people and organisations with an interest in Wirral *to identify their locally determined contribution* now. If you don't already have a plan of action, it's time to create one.

⁴ We recognise that not every organisation or individual has the same influence, capacity and resources to act, but we are not powerless and there is something we can all do

INTRODUCTION

This strategy seeks to speed up the action and investment needed to change Wirral into a place that:

- No longer adds to the problem of unnatural climate change
- Is adapted to cope with the damage already being done by climate change; and
- Plays a part in reversing this damage

To do this, it sets the direction we need to travel over the next decades⁵.

It is an evolving strategy that is the outcome of a continuing conversation. It needs more work and wider support. Many have helped shape it, but many more need to rise to the challenges it sets.

Cool 2 is not a fixed and detailed action plan, but a strategy. One for the whole borough not just for one organisation. As such it provides a basis to guide local decisions. It does indicate some 'early steps' to help move things forward, but its ultimate success will rest on what you and others do in response. Everyone has a part to play.

Waking up to the climate crisis

Unnatural climate change is happening. We are living through it. There has already been 1°C of abnormal heating¹. The damaging impacts are being felt now. We are on a dangerous path and need to change direction. We need to stop the pollution that causes unnatural heating fast. If left unchecked, it will drive more overheating. This will cause severe and irreversible damage on a planetary scale. Humankind - and much of the natural world upon which we rely - is currently heading for disaster. We need to change course.

Current instability in the climate is as a result of a rise in global average temperature. The damaging build-up of excess heat is caused by 'greenhouse gas' pollution from our activities. This is mainly from burning fossil fuels like coal, oil and gas for power, heat and transport⁶. We need to get rid of this pollution to prevent the damage getting out of hand.

This strategy aims to ensure Wirral plays its part to limit the rise in global average temperatures to no more than 1.5°C above the pre-industrial period^{7,8}. It also charts a path to ensure we adapt to current and unavoidable climate change. Damage has already been done. Some further impacts are expected from pollution already produced.

⁵ From an initial vantage point of 2019

⁶ Green Alliance (2011) Climate science explained

⁷ In line with global ambitions in the UN Paris Agreement on climate change which came into force in 2016

⁸ Beyond 1.5°C of unnatural warming even more dangerous climate change will happen.

A bigger impact together

Transformation on an extraordinary scale is needed. Locally we must cut the main climate damaging pollutant, CO₂, by around three and a half times more each year than we have managed to do so far. This is a challenge, but it's not impossible. By co-ordinating local action, we can have a greater impact. Here the strategy indicates the direction of change needed. It sets clear goals and what we must aim for.

The Global Picture

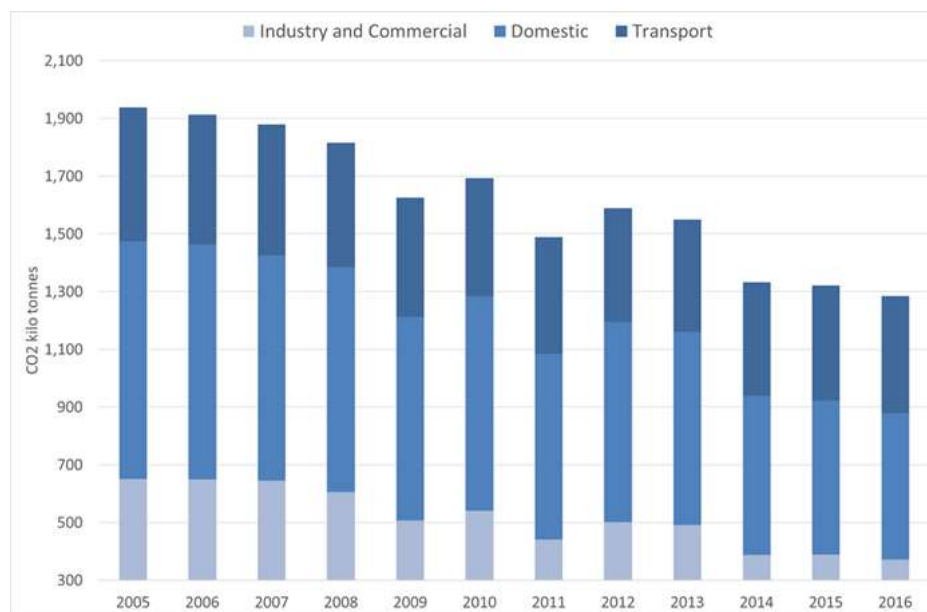
Globally, greenhouse gas pollution (CO₂e) continues to rise. Pollution reached a record high in 2017 of 53.5 Gt CO₂e. This was an increase of 0.7 GtCO₂e compared with 2016.⁹

The UN 'Paris Agreement' on climate change seeks to limit global average temperature rises to 1.5 °C above the pre-industrial period. Unless there is a rapid fall in pollution we could see 1.5°C of unnatural heating as early as 2035¹⁰.

The Local Picture

In Wirral, our CO₂ emissions have fallen across all sources¹¹ (Figure 1). Between 2005 and 2016 the annual average fall in CO₂ emissions was 3.8%.

Figure 1: Wirral CO₂ emissions 2005-16



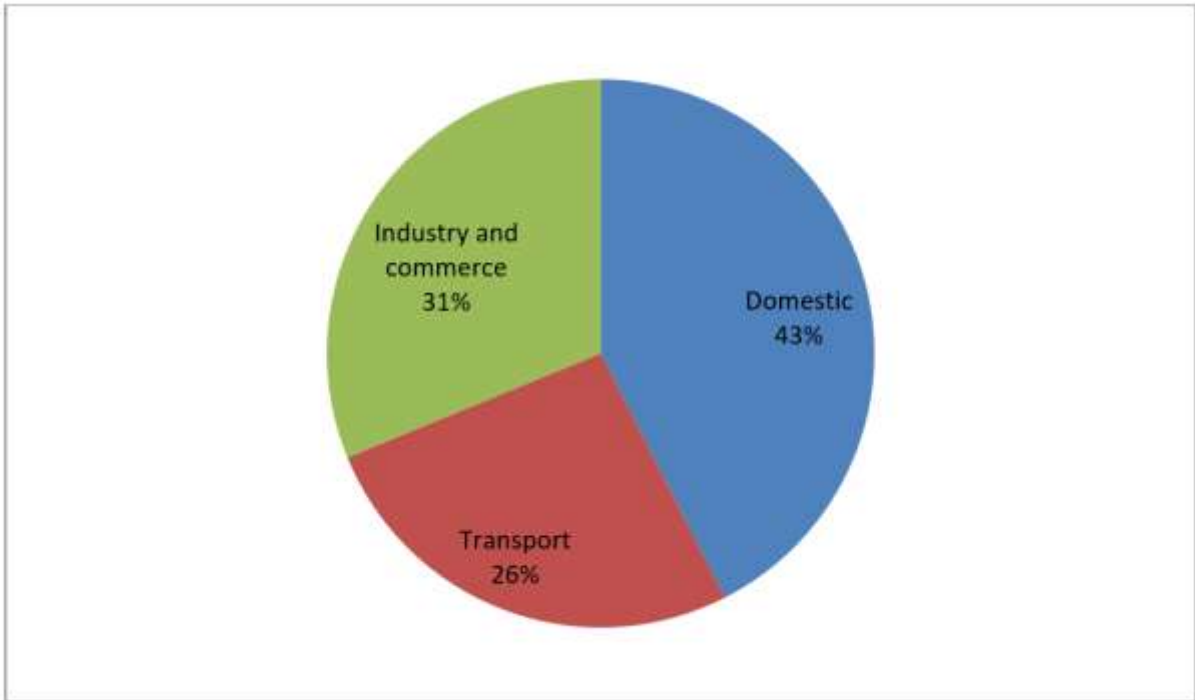
⁹ UNEP (2018) Emissions Gap Report 2018

¹⁰ IPCC (2018) Special Report on Global Warming of 1.5°C

¹¹ Wirral Intelligence Service (2019) CO₂ emissions in Wirral, 2005-2016

The biggest source of CO₂ emissions in Wirral is now from our homes (42.5%). The second largest source is from industrial and commercial activities (31.2%). The third largest is from transport (26.3%) (Figure 2).

Figure 2: Source of CO₂ in Wirral -2016



GOALS

The strategy sets Wirral on the path to achieve two main goals:

To stay within a local emissions ‘budget’ of 7.7 million tonnes (Mt) of CO₂ between 2020-2100 and to reach ‘net zero’ pollution as early as possible *before 2041* (Box 1.1).

To ensure a climate resilient Wirral adapted to cope with existing change and further unavoidable disruption this century (Box 1.2).

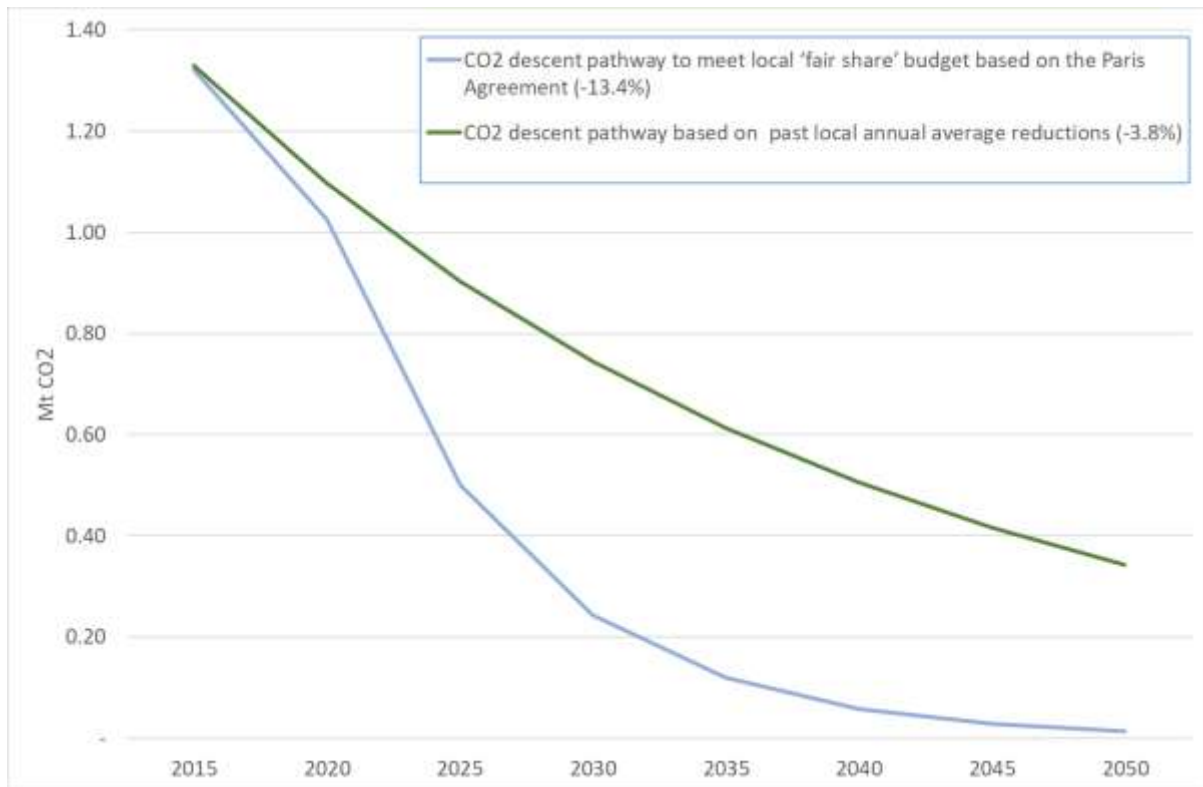
<p>Box 1.1: Staying within Wirral’s emissions budget and reaching ‘net zero’ pollution soon</p> <p>There is only so much more greenhouse gas pollution we can risk without breaking globally agreed temperature limits. This is referred to as our remaining ‘carbon budget’. Our local ‘fair share’ of the global budget for 2020 to 2100 has been calculated to be 7.7 million tonnes of CO₂. Staying within this local budget means sharp reductions in emissions from Wirral each year. Without such reductions we could use up our entire local budget in as little as six years. By 2041, at the latest, the amount of pollution produced locally needs to be less than or equal to that which is removed from the atmosphere, either naturally e.g. taken up by growing plants, or by artificial means. Artificial means of removing and storing CO₂ are currently very limited and costly.</p>	<p>Box 1.2: A climate resilient Wirral</p> <p>Even if successful in reaching ‘net zero’ pollution, some further impact will be inevitable from pollution already in the atmosphere. We are living through climate change. This change will continue for some time. We need to adapt.</p> <p>Wirral is experiencing:</p> <ul style="list-style-type: none"> - Higher summer temperatures with longer dry spells and more frequent heat waves; - Warmer and wetter winters; - More storms and floods; and, - A rise in sea levels. <p>Wirral organisations and households need to adapt to these changes to avoid further disruption</p>
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To meet our fair share of the global pollution reduction burden means cutting CO₂ by an at least an average of 13.4% each year compared to the present reduction of around 3.8 % per year (Figure 3)¹²¹³, i.e. around three and a half times more.

¹² Taken from the Wirral report generated by Tyndall Centre for Climate Change local carbon budget tool. A more recent version of the tool with updated emissions data indicates the need to reach near zero by 2042.

¹³ Ideally, we need to reduce pollution by more than 13.4% early on. Doing this would help stretch our remaining budget over a longer period. If we do not manage to achieve at least a 13.4% reduction in the first years from 2020 we risk using up our remaining budget sooner so would need to achieve higher annual savings thereafter.

Figure 3: Paris Agreement compatible local carbon ‘budget’ descent pathway for Wirral (13.4% reduction per year) compared with present pathway (3.8% reduction per year) ¹⁴



¹⁴ Based on information generated by Tyndall Centre for Climate Change local carbon budget tool

OBJECTIVES

To stand a chance of staying within our emissions ‘budget’ and getting to **net zero climate pollution** and we must aim for:

Leaner use of energy: To reduce the overall demand for energy in Wirral across residential, commercial and industrial sectors making sure all homes currently below Energy Performance Certificate (EPC) Band C that can be upgraded are improved to this level or better by around 2030¹⁵

Clean energy: To generate and/or source all our local energy needs from zero carbon and renewable sources by around 2041

Clean Travel: A complete transition to fossil fuel free local travel by around 2030

Wiser decisions: To use resources – materials, land and food - in a sustainable way so that our collective decisions do not add indirectly to the burden of climate damaging pollution in Wirral or elsewhere – cutting waste, changing land uses and our diets.

Storing more carbon: To capture more carbon naturally by increasing woodland cover in line with national recommendations and by protecting soils and natural habitats

To create a **climate resilient** Wirral, we must aim for:

A clear view of climate risk: To identify vulnerabilities in the face of present extreme weather and further, already unavoidable, changes in the climate and sea levels this century.

Adaptation: To put in place policies, practices and infrastructure, including natural ‘green and blue’ infrastructure, that help limit negative impacts from existing and future changes in the climate

To provide the **foundation for change** we must aim for:

Wider climate understanding: To educate and raise awareness about the climate emergency and about the opportunities and benefits of taking climate action, together with the risks and threats of inaction across Wirral to make sure we understand the problem and have the right skills in place to do what needs to be done

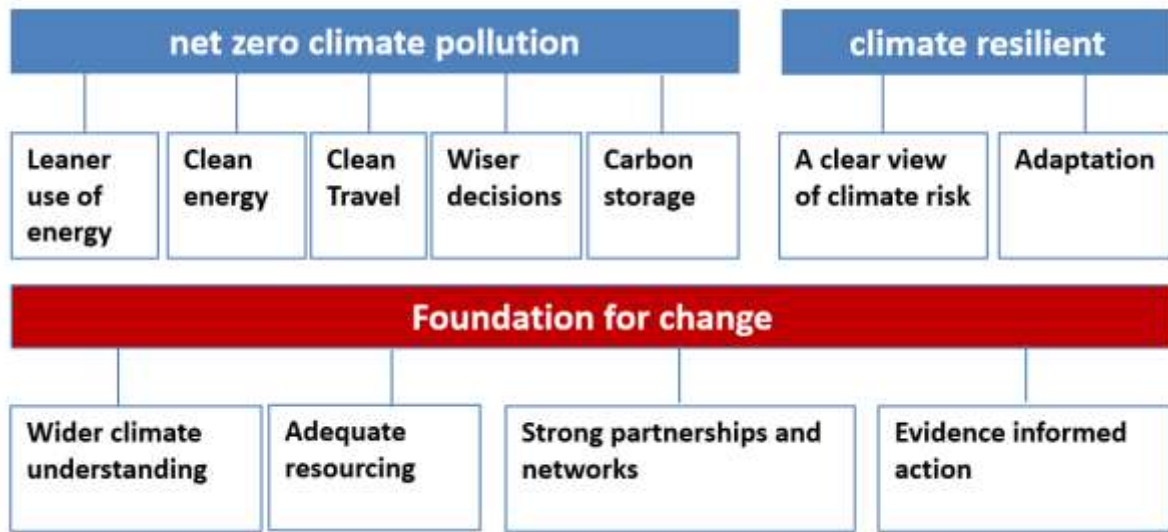
Adequate resourcing: To secure increased investment to match the scale of the challenge

Stronger partnerships and networks: To ensure climate action is given the priority it needs and is developed in a collaborative and co-ordinated way with key organisations, interests and networks involved to provide mutual support

Evidence informed action: To build a better picture of where we are at, what needs to be done and the impact of our actions through the ongoing collation and examination of the evidence and data available to include the identification of indicators and associated targets

¹⁵ There are just over 100,000 owner-occupied and privately rented homes in Wirral below EPC Band C

Goals and objectives for Wirral in a nutshell...



MOVING FORWARD AND STAYING ON TRACK

A mechanism to drive progress

The key mechanism that this strategy introduces is based on the UN's global approach. Under the Paris Agreement, nations submit their own 'Nationally Determined Contribution' (NDC) towards the global climate goal. The local carbon reduction goal presented in this strategy is based on Wirral meeting its fair share of the Paris Agreement¹⁶. The Wirral approach thus seeks to secure 'Locally Determined Contributions' from all those with an interest in our borough to help meet this local goal. Some organisations already have climate-related action plans. Others are committed to develop them. Many more need to be encouraged and supported to do so. These 'Locally Determined Contributions' vary but together need to add up to the scale of ambition set out here. We will get a sense of whether the strategy working by the number and quality of 'Locally Determined Contributions' coming forward. If such plans are not developed, our strategy will fail.

Working in Partnership

The Cool Wirral Partnership has helped create this strategy. To support its progress, it will:

- Provide a forum with an independent voice to co-ordinate and champion local action to tackle the climate crisis
- Help to grow the wider network of interest
- Encourage those who support the strategy to identify their 'Locally Determined Contributions' and to share these action plans publicly
- Gather and present data to inform action with a set of indicators to show if we are making progress
- Produce annual reports on local progress that consider both actions taken in partnership and the 'Locally Determined Contributions' shared – and crucially any gap between actual and necessary reductions in emissions
- Organise a public annual climate emergency forum to report progress, share experience and encourage further action
- Arrange citizen panels on climate strategy topics where progress is limited. These panels will review the evidence and make further recommendations for action

Early steps

The following steps will be taken early on to build momentum. These steps involve different organisations working together. They draw on both organisations in the Cool Wirral Partnership and those beyond:

¹⁶ Based on the Tyndall Centre for Climate Change local carbon budget tool

Purpose	Step	Background/Description	Lead and key stakeholders	Timescale
<i>Accelerate sustainable energy transition</i>	Set up a zero carbon buildings and infrastructure taskforce	The energy transition demands the widespread upgrade of existing buildings, higher standards for new buildings and changes to energy infrastructure to decarbonise heat and power. The taskforce will focus on quantifying and costing the changes needed in our buildings and infrastructure, identifying solutions and seeking opportunities to realise them. The taskforce will be asked to report on building retrofit, new build and upgrading infrastructure within the first year of the strategy.	Wirral Council, Energy Projects Plus, <i>developers, architects, academic interests, utilities, House builders, Social landlords,</i>	Taskforce in place Jan' 2020 Reports Dec' 2020
<i>Accelerate sustainable energy transition</i>	Assess the potential feasibility of heat networks in the Birkenhead area	Heat networks are a key potential way to de-carbonise heating. They involve the supply of heat over a wider area from a central source via a network of pipes. The prospect for heat networks was identified in Cool 2014-2019 with a heat mapping/master planning study undertaken. The principal opportunity in Wirral is in the Birkenhead area. To realise the opportunity, the detailed feasibility and business case now need to be developed.	Department of Business Energy and Industrial Strategy, North West Energy Hub, Wirral Waters - Peel Land and Property, Peel Energy, Wirral Council	Feasibility report April 2020
<i>Accelerate sustainable energy transition</i>	Identify further renewable energy opportunities	The potential for local renewable generation was investigated partially through work associated with the Cool 2014-19 strategy. Potential urban sites for community owned solar PV were identified by Wirral Community Renewables through an Urban Community Energy Fund supported feasibility study. Wirral Council identified and installed solar PV on 24 council buildings. Four schools benefited from solar PV via Solar 4 Schools. Work on potential sites for onshore wind was aborted after a change to government planning advice. There is a need to look across the borough at further potential for renewable energy generation. A local clean energy study will be conducted to identify opportunities and constraints for clean energy development. There is also a need to identify options for local ownership of renewable generation within and beyond the borough to meet local needs.	Wirral Council, Wirral Community Renewables <i>Scottish Power Energy Networks</i>	Report on clean energy study June 2020
<i>Accelerate sustainable travel transition</i>	Prioritise transport interventions that support rapid decarbonisation of travel	Existing transport policies and programmes do not reflect the scale and urgency of the changes needed to address the climate emergency. A challenge is to make sustainable transport a natural, convenient and safe option by giving sustainable modes – walking, cycling and public transport- priority; priority for funding, priority for road space, priority in the design of new spaces, networks and junctions. In parallel there is a need to identify ways to support a rapid shift in the motor vehicle fleet to ultra-low emission vehicles including electric and plug-in hybrid vehicles and provision for their charging. Different organisations in the public and	Wirral Council, Transport Steering Group, <i>Liverpool City Region Combined Authority, Merseytravel, bus and train operators</i>	Terms of reference and work programme March 2020

Purpose	Step	Background/Description	Lead and key stakeholders	Timescale
		private sectors have roles in the planning and provision of transport infrastructure and services. There is a need to ensure future decisions made by these organisations take account of the need for decarbonisation. The existing transport steering group supported by Wirral Council will refocus its activities to encourage interventions to meet the challenge.		
<i>Accelerate reduction in indirect emissions</i>	Develop 'The Loop: Wirral' circular economy programme	The way the economy presently operates has been characterised as a 'linear economy' in which natural resources are taken, transformed, used for a relatively short period of time and then discarded as 'waste'. This environmentally damaging approach can't be sustained. A circular economy is one more in tune with natural systems not damaging to them. Waste is designed out, resources are kept in productive use as much as possible with products, components and/or materials 'looping back' through the system. The transition to a circular economy will require many changes – legal, financial, technical and cultural - along with the active involvement of multiple parties. Some pioneering businesses are already actively adopting circular practices and/or developing technologies that will assist. To increase the uptake of such activities and technologies 'The Loop: Wirral' circular economy programme will be developed to promote and accelerate circular practices and provide incubator space to nurture businesses developing circular technologies and approaches.	Wirral Council, Merseyside Recycling and Waste Disposal Authority, <i>Wirral Chamber, private sector, academic and research interests</i>	'The Loop' governance and business model, April 2020
<i>Accelerate reduction in indirect emissions</i>	Ensure policies in the Local Plan reflect the climate emergency	Planning policy and the new local plan for Wirral will have a key influence on the nature of future development across the borough. It is vital that the plan takes full account of the climate crisis and its implications for Wirral, both the need to reach net zero emissions rapidly and the need to adapt to unavoidable change in climate and sea levels. Public Consultation on the new plan under Regulation 18 of the Local Plan Regulations 2012 is due to begin in 2020. The Cool Wirral Partnership will be a consultee at this stage.	Wirral Council, Cool Wirral Partnership	
<i>Accelerate reduction in indirect emissions</i>	Boost reuse and recycling and prepare for the introduction of food waste collection	The local domestic recycling collection is based on a system that was developed approximately 15 years ago and needs to be updated to reflect new technologies, markets and legislation. The Government's Resources & Waste Strategy seeks to achieve a 55% recycling rate for household and business waste by 2025, rising to 65% reuse and recycling for municipal solid waste by 2035. The UK's independent Climate Change Committee	Wirral Council, Merseyside Recycling and Waste Disposal Authority, third sector organisations, Registered Social Landlords	Develop new strategy by June 2020.

Purpose	Step	Background/Description	Lead and key stakeholders	Timescale
		<p>has recommended that biodegradable waste should be banned from landfill by 2025 and Wirral’s residual waste is all currently sent to create heat and power, instead of going to landfill. The government has signalled it will legislate for mandatory separate food waste collections by 2023 and will update the list of core materials that must be collected from households for recycling to include “plastics”. Merseyside Recycling and Waste Authority has recently stated that it is developing a Zero Waste Strategy to be launched in 2020. Wirral Council will be developing a new Waste Management Strategy in 2020, to continue and build on work carried out as part of the Wirral 2020 Plan. This will include developing a new domestic collection service for residual waste, reuse, recycling and composting/anaerobic digestion and working with partners to increase levels of waste prevention, reuse, repair and recycling in Wirral.</p>		
<i>Accelerate reduction in indirect emissions</i>	Establish a food forum/network	<p>Food production, consumption and waste have an impact on climate. There are many food related initiatives in or relevant to Wirral, for example, Love Food Hate Waste, which provides information and advice to help individuals and families to save money and waste less food. These initiatives often cover different aspects of our relationship with food and are not always ‘joined up’. The ‘Better Food Wirral’ initiative, which was established during the period of the previous Cool strategy, brought together some local food interests and helped build a ‘brand’ around which to develop local food related conversations on health and climate amongst others. Reimagining a food forum/network that builds on the foundation provided by Better Food Wirral to engage a broader range of stakeholders and community from across the wider local system would help to unite and amplify the impact of local food initiatives to create a healthy, sustainable and ‘climate-friendly’ food environment. Recommendations from a series of Healthy Weight Workshops, run by Wirral Council’s Children and Families Overview and Scrutiny Committee in November and December 2019, are expected to focus action in this area.</p>	Wirral Council, <i>food projects, food producers, food banks, schools, Edsential, Youth Parliament</i>	Set up Forum/network Post-March 2020
<i>Increase carbon capture</i>	Develop a tree strategy for Wirral	<p>Trees can play many useful roles in relation to climate change from storing carbon to moderating temperatures and slowing the flow of water during intense downpours. A 10-year strategy will be prepared to help realise these benefits.</p>	Wirral Council, Wirral Initiative for Trees.	March 2020

Purpose	Step	Background/Description	Lead and key stakeholders	Timescale
<i>Accelerate adaptation</i>	Set up a climate adaptation group and develop a local adaptation programme	Some work on adaptation was initiated in support of the Cool (2014-19) strategy, but there has been a greater focus on reducing emissions. To ensure adaptation is given greater attention, an adaptation subgroup of the Cool Wirral partnership will be established to bring together and provide a forum for those with a direct interest in adaptation. The subgroup will initially be tasked with developing an adaptation programme for Wirral to take on board the implications of the latest information on climate risks.	Wirral Council, Cool Wirral Partnership, <i>Environment Agency, Local nature and biodiversity interests, utility companies, transport and health interests</i>	Set Up group Jan 2020
<i>Showcase the sustainability transition</i>	Promote the 'Sustainability Central' initiative	The need to ensure that major redevelopment opportunities in and around Wirral Waters and Birkenhead reflect climate change was identified as part of work on the Cool (2014-19) strategy. The aim is to ensure these regeneration activities are harnessed to create exemplars of the transition to a 'zero carbon' 'climate ready' place and that opportunities are created for community led sustainability transition in the wider Sustainability Central area. A "Sustainability Central" task group has mapped existing activity and community and physical assets in the area and have drafted a prospectus as a vision for the change needed. The plan is to launch the prospectus as an invitation for wider involvement and as a provocation to stimulate investment and action. A steering group will be formed to help co-ordinate activities, ensure widespread involvement and to secure resources and realise opportunities to progress the initiative.	Cool Wirral Partnership, <i>Wirral Council, Peel, Energy Projects Plus, Wirral Environmental Network, Wirral Met College, Merseyside Recycling and Waste Disposal Authority, Wirral Chamber, Faiths 4 Change</i>	Launch prospectus Steering group Jan/Feb 2020
<i>Showcase the sustainability transition</i>	Establish a community eco-hub/s	At workshops to develop the Cool 2 strategy the benefit of co-locating practical community environmental initiatives was highlighted with the suggestion that a community eco hub/s be established building on those that currently exist. The intention is to develop existing or create new space/s to bring practical projects together, e.g. at start, those concerned with growing trees and food; sustainable energy; and resource re-use. The first step is to identify opportunities.	Energy Projects Plus, Wirral Environmental Network	Review existing provision and gaps June 2020
<i>Accelerate climate understanding</i>	Implement a climate literacy programme	There is a need to build a common understanding about the climate crisis across communities and organisations in Wirral and what we can do about it. The Carbon Literacy programme (https://carbonliteracy.com/) is an established structured training programme that provides common	Wirral Council, Energy Projects Plus, Cool Wirral Partnership,	Councillor sessions Feb 2020

Purpose	Step	Background/Description	Lead and key stakeholders	Timescale
		standard for awareness. Several tools (e.g. SCATTER ¹⁷) have been used to help develop the Cool 2 strategy and can be also used to help develop understanding about the scale of the challenge locally and the impact of different measures. Awareness sessions will initially be held with Councillors to introduce the Cool 2 strategy and highlight the scale of the local challenge. In parallel funding opportunities to progress a wider carbon literacy programme will be explored.		
<i>Accelerate climate understanding</i>	Maintain an expanded climate emergency communications programme	Despite efforts initiated under the Cool (2014-19) strategy, there is limited awareness of local work on climate change. There is a need for much wider awareness and engagement if the Cool 2 strategy is to be successful. In addition to a concerted effort to ensure local climate related action has a higher profile generally, efforts will focus on recruiting interested parties to a mailing list and related social media channels to increase awareness about Cool 2. Efforts will also be directed at building recognition of the existing Cool Wirral 'brand' and heightening the sense of urgency through the new 'Wirral Climate Emergency' label.	Wirral Council, Cool Wirral Partnership	
<i>Support development of 'locally determined contributions'</i>	'Cool Business' programme	Wirral Chamber has created a bespoke energy and environment sector forum to bring together local businesses active or interested in these issues. The chamber has recently consulted its members and responding to the climate emergency this has been identified as a priority area for employers to address. The Cool Business programme will be developed to engage and encourage local businesses to respond to the climate emergency and support both innovation over new products and services. This service will also look at current operations and to support business to make sustainable changes in line with the requirements for the climate emergency	Wirral Chamber, Wirral Council, local businesses	April 2020
<i>Support development of 'locally determined contributions'</i>	'Cool School' programme	Wirral has a very successful eco schools programme with a thriving network of teachers and pupil eco committees working on a variety of environmental initiatives in schools and the wider community. The Cool Schools programme will provide support to develop school climate action plans. There will be bronze, silver and gold standard with associated rewards to encourage schools to take part	Wirral Council, Eco schools network, local schools	

¹⁷ SCATTER (Setting City Area Targets and Trajectories for Emissions Reduction) is a local authority area focussed emissions modelling tool

Purpose	Step	Background/Description	Lead and key stakeholders	Timescale
<i>Support development of 'locally determined contributions'</i>	'Cool Places of Worship' programme	The faith and climate network for Merseyside was established and has grown as a result of work initiated as part of the Cool 2014-19 strategy. The Cool places of worship programme seeks to build on this by engaging with faith communities in Wirral directly in order to help these communities develop climate action plans for their places of worship (POW).	Faiths 4 Change, Faith and Climate Network - Merseyside, Wirral Council	Promote across all faiths. 4 POW action plans by April 2020
<i>Support development of 'locally determined contributions'</i>	'Cool homes' programme	Past research shows there is a willingness for local people to do their bit to help tackle climate change. The challenge is to get the message out about what people can and need to do in their daily lives. 'Cool Homes' will engage with citizens through their home environment. Initially it will be an eight-month media focused 'reality tv' type campaign. Ordinary families will be recruited to make changes and to record and share their experiences. The aim is to create shareable and relatable content to encourage and guide wider practical household action.	Energy Projects Plus Wirral Council	
<i>Support development of 'locally determined contributions'</i>	'Cool communities' programme	The first Cool strategy set an objective to increase the number of low carbon community/transition town type groups. One new group was formed over the life of the strategy. To encourage further expansion of community level activity, the Cool Communities programme will run a series of events to bring people together to encourage practical action. The aim will be to encourage new groups to form and develop action plans and to support existing groups to do so.	Wirral Environmental Network Wirral Council	Pilot programme by March 2020

MOVING IN THE RIGHT DIRECTION

The following parts of the strategy indicate the direction of travel we must move in to get closer to our goals. Each introduces a strategic objective and the associated direction of travel. To start building your own action plan in support of the strategy, as you read, please consider the things you or your organisation can do to help move us in these directions. You can record them using the ‘action plan builder’ in the appendix. For those who need more information, a separate technical appendix provides wider context and details of what we know and where we are at.

The following principles should help guide our actions for maximum impact:

Recognising Win-Wins – Many actions we need to take in the face of climate chaos have other benefits too: job creation; new investment; education; local environmental improvements; better air quality; stronger communities; and better health. We must recognise and seize these opportunities. We need to seek and secure the ‘win-wins’.

A just transition – The investment needed to create a ‘net zero’, climate resilient community creates a huge opportunity to reshape Wirral for the better. To secure success we need to take a just approach so that the benefits are shared, and the burden is not borne unfairly.

Near and present danger - Climate damage already impacts vulnerable groups most harshly. In Wirral, the groups most vulnerable now are young children, older people, residents experiencing multiple deprivation and people suffering from cardiovascular disease or respiratory illnesses (JSNA, 2018)¹⁸. Our actions can help people in Wirral today.

Creative collaboration – We don’t yet have all the tools and resources locally to do what needs to be done. Individual leadership is vital but is not enough. We can and must change our own organisations, policies and practices and invest the resources we have better. But we must also be creative in areas where powers and resources are not yet in place. We must innovate and collaborate in order to make a bigger impact and close the gap between where we are and where we need to be.

Root and branch change- Small changes start us on the journey but will only get us so far. We don’t just need to do existing things a little differently, we will need to do different things too. Modern society has been organised as if there will always be access to cheap and abundant natural resources. But the high consumption ‘throw away’ fossil-fuelled economy has proven to be both destructive and unsustainable. We have seen great advances and positive change but can now see wider costs and damage. We need to think about the wider system when planning our actions. We need to focus our efforts on the roots of the problem not just the symptoms.

Local to global - No single individual, organisation, locality or nation can halt global warming, but each has a crucial role to play. We must translate the global changes needed to our unique locality and make the best of our local resources and skills. We must also be outward looking and learn from others. We must participate in and help shape wider action. We must engage with government and highlight where national policies frustrate local ambition. We can and must learn from each other from local to global.

¹⁸ Wirral JSNA (2018) climate change and health 2018

LEANER USE OF ENERGY

Objective: To reduce the overall demand for energy in Wirral across residential, commercial and industrial sectors making sure all homes currently below Energy Performance Certificate Band C that can be upgraded are improved to this level or better by around 2030

Using energy as efficiently as possible is a no brainer. We can't afford to waste energy anymore. We need to get more from the energy we use. We need to use less overall. Cutting energy waste will cut our energy costs and carbon emissions. Cutting energy demand through energy efficiency will also reduce bills, improve levels of comfort in our homes and businesses and help tackle fuel poverty too.

Direction of travel

- Refurbish existing buildings so that they use less energy
 - o *Improve the fabric of existing buildings to stop unnecessary heat loss or overheating*
 - o *Operate existing heating and cooling systems more efficiently*
 - o *Upgrade heating and cooling systems and their controls*
 - o *Adapt buildings to make use of natural light, passive heating and cooling*
- New buildings designed for extreme low energy 'zero carbon' use
 - o *Design new buildings to much higher standards that make use of natural light, passive heating and cooling, and enhanced insulation and air tightness with controlled ventilation*
 - o *Stronger compliance. Reduce the gap between standards and what is built*
- Review existing practices and equipment to stop wasting energy
- Adopt the most energy efficient plant, processes, appliances and lighting
- Create a 'lean energy' culture where the highest standards of energy and water efficiency and good housekeeping are the norm
- Establish 'heat networks' in urban areas
- Develop 'smart grids' taking advantage of enhanced data, connectivity and the decentralisation of energy generation and storage

CLEAN ENERGY

Objective: To generate and/or source all our local energy needs from zero carbon and renewable sources by around 2041

As we use energy in a leaner way, we must also shift to use cleaner energy. Much of the energy we have used for power and heat has traditionally involved dirty fuels – coal, oil and gas. Recently there have been remarkable changes in how we generate power. There has been a rapid shift towards clean renewable energy, primarily from the wind and sun. This 'renewables revolution' must continue. 'De-carbonisation' must also extend to our use of heat. Much of our heat still comes from burning natural gas. We will need cleaner sources of heat both for space heating and industrial processes. In the northwest opportunities for making more use of hydrogen (combined with carbon capture and storage) are being explored through the Hy-Net project. The investment needed to

change our energy infrastructure is a fantastic opportunity for new jobs and training as the existing and future workforce will need new skills too.

Direction of travel

- Exploit new renewable energy opportunities on and off-shore – wind, solar, tidal
- Purchase energy from renewable sources to meet our needs locally
- Shift heating completely away from fossil fuels - a switch to electric heating, heat pumps, heat networks and the use of biogas and hydrogen in place of natural gas. No new houses connected to the gas grid by 2025
 - o *Develop more heat networks in urban areas*
 - o *Increase use of heat pumps and hybrid heat pumps*
 - o *Make new homes suitable for low carbon heat with appropriately sized radiators and low temperature compatible thermal stores*
 - o *An increasing use of non-fossil fuel alternatives to natural gas injected into the gas grid including bio-methane the potential for hydrogen.*

CLEAN TRAVEL

Objective: A complete transition to fossil fuel free local travel by around 2030.

Compared to the power sector, emissions from transport remain stubbornly high. Improvements in vehicle emission standards have not delivered expected benefits in ‘real world’ conditions. Rising motor traffic has also limited progress. Cars still dominate over public transport, walking and cycling. Shifting to cleaner travel will bring benefits for health and environmental quality. Locally, there is frustration and annoyance about the cost and limited integration of local public transport services. There is also concern about limited provision for cycling and walking.

Direction of travel

- A greater proportion of local journeys made by bike or on foot
 - o *Priority for cyclists and pedestrians rather than for motor vehicles*
 - o *Better infrastructure and environment for people to walk safely*
 - o *Better infrastructure and environment for people to cycle safely and park cycles securely*
 - o *Greater use of cargo and delivery bikes for final mile deliveries*
- A greater proportion of journeys in town and between towns made by public transport
 - o *Priority for public transport over other motor traffic*
 - o *Better public transport infrastructure and vehicles*
 - o *More flexible and affordable payment and ticketing options that enable interchange between services*
 - o *Extensive, interconnected regular and frequent public transport services*
- Easier connection between different modes of sustainable travel – walk and ride, cycle and ride, park and ride, bus and train
- A shift from individual ownership of vehicles to the use of travel services, e.g. car clubs, travel passes

- Increase in the proportion of zero emission vehicles with widespread adoption of electric vehicles and plug-in hybrids
 - o *Investment in infrastructure to support large scale electric vehicle charging including provision for electric bikes*
 - *Cabling for charging/chargers for new parking places*
 - o *Phase out of conventional fossil fuelled internal combustion engine cars and vans by around 2030*
 - o *Adoption of electric or zero carbon fuelled rail*
 - o *Use of hydrogen as a fuel in heavy goods vehicles, buses and trains*
- More people adopting smarter efficient and safer driving styles

WISER DECISIONS

Objective: To use resources – materials, land and food - in a sustainable way so that our collective decisions do not add indirectly to the burden of climate damaging pollution in Wirral or elsewhere.

Decisions about where we live and work, what we buy and eat and what we throw ‘away’ all have implications for climate pollution. By thinking about these wider implications, we can often make wiser decisions that help cut pollution. The benefits are not limited to pollution. Wiser decisions can strengthen the local economy and improve health. Locally there is frustration about the limited range of materials collected for recycling.

Direction of travel

- Reduction in the impact of our diet on climate
 - o *Reduction in meat consumption particularly the consumption of beef and lamb where rearing livestock has a higher climate impact*
 - o *Shift to a lower energy intensity diet e.g. consumption of local and seasonal food*
- Shift to a zero waste ‘circular economy’
 - o *Elimination of waste by design*
 - o *Education, to increase awareness of choices available as a consumer*
 - o *Increase in the life of products with more facilities for servicing and repair*
 - o *More re-use of resources rather than ‘single use’*
 - o *More remanufacturing where items are returned to the original manufacturer to be restored*
 - o *Increase in recycling with a wider range of materials collected for recycling*
 - o *No biodegradable waste to landfill by 2025. More anaerobic digestion of biodegradable wastes to produce biogas and fertilisers*
- Spread environmentally informed procurement practices
 - o *More focus on the ‘whole-life’ impact of products*
 - o *Shortening supply chains to reduce unnecessary travel and promote the procurement of local goods and services*
- Consider the sustainability implications of all key decisions.
 - o *More utilisation of sustainability appraisals*

- A shift to land use patterns and technologies that reduce the need for motorised travel

MORE CARBON STORAGE

Objective: : To capture more carbon naturally by increasing woodland cover in line with national recommendations and by protecting soils and natural habitats

To help reach 'net zero' emissions, more carbon needs to be removed from the atmosphere and stored for long periods. Artificial means of carbon capture and storage (CCS) are being explored but there is nothing yet in place at the scale needed. Locally, there may be potential to store captured carbon by reuse of the Liverpool oil and gas fields in the Irish Sea. This opportunity is being explored in the northwest as part of the Hy-Net project. Natural storage is a more immediate opportunity. Woodlands are particularly good at capturing and storing carbon both in trees and the soil. Commercial forestry can also help capture and store carbon where the timber is used in buildings in place of bricks, steel and concrete. Looking after the natural environment and soils helps protect natural carbon stores.

Direction of travel

- Plant more trees. A sharp and sustained increase in tree planting is needed - around three times the current rate nationally
- Increase in woodland cover. Around 45% more woodland is needed nationally by 2050. A fifth of agricultural land is anticipated to be converted to woodland or the growing of energy crops.
- Increase use of timber in buildings
- Protect and enhance 'natural capital'
- Explore opportunities associated with artificial carbon capture and storage

A CLEAR VIEW OF CLIMATE RISK

Objective: To identify vulnerabilities in the face of present extreme weather and further unavoidable changes in the climate this century.

Understanding the risks faced, is the first step to developing resilience. Extreme weather events already impact Wirral and cause disruption and damage. These events will become more commonplace. It is important we are aware of existing vulnerabilities and future ones as weather patterns change.

Direction of travel

- Heightened awareness of changes in the local climate and their impacts
- Wider understanding of the main risks and vulnerabilities from a changing climate
- Wider appreciation of the advantages of preparing for change and the tools to help

ADAPTATION

Objective: To put in place policies, practices and infrastructure, including natural ‘green and blue’ infrastructure, that help limit negative impacts from existing and future changes.

With better understanding of local climate risks, we can begin to adapt to ensure Wirral remains open for business whatever the weather.

Direction of travel

- More efficient use of water
- Upgrades to critical physical infrastructure to cope with expected changes
 - o *Develop Sustainable Urban Drainage Systems (SUDs) to ‘slow the flow’ of water into the hard drainage system*
 - o *Use of property level flood protection in areas at risk from flood*
 - o *Changes to coastal defences in the face of rising sea levels*
- More investment in nature and water features [‘green and blue infrastructure’] to limit negative impacts
 - o *Increase urban green space and the use of green roofs and walls*
- Building resilience in organisations to enable continuity of business and services; creating a change in culture not just an emergency response
- Develop support networks in communities to improve responses to emergency situations and support vulnerable groups
- Promote behaviour change to adapt to likely changes in the climate

WIDER CLIMATE UNDERSTANDING

Objective: To educate and raise awareness about the climate emergency and about the opportunities and benefits of taking climate action and the risks and threats of inaction across Wirral and make sure we have the right skills in place to do what needs to be done.

Education, awareness, training and better communication are cited again and again (and again!) in discussions about actions needed to tackle the climate crisis. Building wider understanding is widely seen as a critical foundation for change. We need to do more to understand the problem and the solutions.

Direction of Travel

- Raise awareness about the issues and how people and organisations can play their part
- Develop local climate-related educational programmes and resources
 - o *Engage key decision makers*
- Make climate-related education a key part of life-long learning and vocational training
 - o *Spread carbon literacy*
- Ensure we have the necessary skills in place to support the changes needed
- Showcase ‘real-world’ examples of best practice to inspire wider action

ADEQUATE RESOURCING

Objective: To secure increased investment to match the scale of the challenge.

To secure progress we need to marshal resources to the tasks at hand. Resources will need allocating differently. Patterns of public, private and personal investment will need to change. Inadequate resourcing now will be a costly mistake over the longer term. Action now is cheaper than trying to undo damage later.

Direction of Travel

- Allocate resources – both people and money – to match the scale of the challenge
 - o *Consider long term costs and benefits of procurement decisions*
 - o *Seek ‘invest to save’ opportunities*
 - o *Bid for funding opportunities when they arise*
 - o *Argue for reallocation of existing resources to address the climate crisis*
- Shift the allocation of resources away from activities that contribute to the problem and towards those that provide solutions
 - o Divest from fossil fuel investments

STRONG PARTNERSHIPS AND NETWORKS

Objective: To ensure climate action is given the priority it needs and is developed in a co-ordinated way with key organisations, interests and networks involved to provide mutual support.

To accelerate local action, the climate crisis needs to be a higher priority. We need to ensure that we have key local interests on-board and active. We also need to provide opportunities for people and organisations to connect and share their experiences. With more on-board and better co-ordination, we can make a bigger impact.

Direction of travel

- Make climate change a priority amongst existing partnerships and networks that have an interest in Wirral
- Create new opportunities for people and organisations to connect with one another to share information and develop new initiatives
- Foster connections between groups active in different places - within and beyond Wirral

EVIDENCE INFORMED ACTION

Objective: To build a better picture of where we are at, what needs to be done and the impact of our actions through the collation and examination of the evidence and data available.

The climate emergency is a global crisis. To make better decisions locally we need to better understand the local dimensions of this crisis. Having the right information to hand can help

motivate and guide action. By gathering the evidence, we can take more effective action. We can also better measure and monitor progress.

Direction of travel

- Gather data to build a better understanding of our impact on the climate and the impact of actions being taken
 - Understand our 'carbon footprint'
 - Understand the impact of actions to reduce our 'carbon footprint'
- Use information more to help motivate and guide action

Appendix: Build your own Cool action plan

What can/will you do...

...to help ensure a shift to leaner use of energy?

- from today...
- this month...
- this year...
- within the next five years...

...to help ensure a shift to clean energy?

- from today...
- this month...
- this year...
- within the next five years...

...to reduce the indirect impacts of our decisions on climate damaging pollution?

- from today...
- this month...
- this year...
- within the next five years...

...to help store more carbon?

- from today...
- this month...
- this year...
- within the next five years...

...to help get a better understanding of local climate risks?

- from today...
- this month...
- this year...
- within the next five years...

...to help adapt to the climate risks we face locally?

- from today...
- this month...
- this year...
- within the next five years...

...to support wider understanding of the climate emergency?

- from today...
- this month...
- this year...
- within the next five years...

...to ensure adequate resources are allocated to responding to the climate crisis?

- from today...
- this month...
- this year...
- within the next five years...

...to help build stronger local partnerships and networks?

- from today...
- this month...
- this year...
- within the next five years...

... to support evidence informed action in the face of the climate crisis?

- from today...
- this month...
- this year...
- within the next five years...