

# Reduce, Produce, Offset and Buy

## Action Plan

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES
	Establish the authority carbon baseline.	Identify emissions values via data capture for Scope 1, 2 and 3 emissions as prescribed by Welsh Government.	Corporate Responsibility	Short/ Medium
		Identify key carbon contributors to the baseline, each directorate to take on responsibility	Corporate Responsibility	Short
	Communications/awareness/staff engagement	Each directorate to take on responsibility of weaving decarbonisation into the way they operate, initially through staff awareness/engagement.	Corporate Responsibility	Short
	Educate staff and residents on their responsibility to reduce their carbon footprint.	Promote understanding of the benefits of energy efficiency, including cost savings and improved comfort and health. e.g. the update of smart meters in the home.	Corporate Responsibility	Short
	All Council Strategic Policy Documents to have decarbonisation at their heart.	Decarbonisation to be included as a fundamental element of all strategic policy documents prepared by the Council.	Corporate Responsibility	Short/Medium
	Reduce plastic use as a Council.	Promotional campaign to make staff aware of their responsibilities to reduce plastic consumption.	Corporate Responsibility	Short
	Build relationships with academic institutions and innovative and pioneering businesses in this field.	Build on the region's strong reputation for research and innovation through engagement with Higher Education institutes and blue-chip companies including developing digital and smart solutions to energy transitions as well as seeking solutions to future proofing ongoing developments.	Corporate Responsibility	Short/Medium
		Promote research into battery and hydrogen technologies.	Corporate Responsibility	Short/Medium
	Develop skilled workforce in this sector.	Develop training programmes with our educational partners to provide skill set to gain employment in work sector that can positively influence the decarbonisation agenda.	Corporate Responsibility	Short/Medium
	Encourage employment opportunities in this sector.	Encourage local employment for new Council and private sector projects.	Corporate Responsibility	Short/Medium
		Support a 'just transition' for workers by supporting those in 'traditional' high carbon industries to retrain	Corporate Responsibility	Short/Medium
	Low Carbon design training	Investment in training and knowledge gain for our staff, from engineers to architects and procurement into low carbon and natural material use within the design and construction of new and renovation of existing buildings.	Corporate Responsibility	Short/Medium



## REDUCE

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES
	<b>EXISTING NON DOMESTIC BUILDINGS</b>			
R1	Consider designing existing buildings to net carbon neutral standards and carbon neutral for operational activities.	Implement all available opportunities for carbon reduction within portfolio of existing building stock. Property Services to lead but each Directorate to examine its own property assets register to identify opportunities.	Property Services	Short/Medium/Long
R2	Convert all lighting to LED format.	Expand existing programme of lighting upgrade to take in all CCBC owned properties	Property Services	Short/Medium
R3	Consider improving building insulation levels on existing buildings.	Identify buildings that could have insulation levels increase.	Property Services	Short/Medium/Long
R4	Consider improving energy efficiency through other technologies e.g. heat pumps, CHP units on existing buildings.	Identify opportunities for technology that can improve energy efficiency.	Property Services	Short/Medium/Long
R5	Consider alternative heating formats to gas boilers on new build opportunities, major refurbishments and when existing boilers fail.	Review opportunity to replace gas boilers when appropriate to move away from gas supply.	Corporate Approach/Property Services	Short/Medium/Long
R6	Provide energy efficiency training to key building staff.	Provide training on Building energy management systems and good housekeeping techniques.	Property Services	Short
R7	Develop a water conservation plan.	Look at opportunities to reduce water consumption through reduced flows, demand and design.	Property Services	Short/Medium/Long
R8	Continue to rationalise our non domestic property portfolio.	Post Covid 19, examine opportunities to reduce our office accommodation requirements which will reduce carbon emissions from gas and electricity plus other activities.	Property Services	Short/Medium
	<b>EXISTING HOUSING STOCK</b>			
R9	Deliver fabric improvements to reduce energy consumption and deliver cost savings, considering a whole house retrofit approach where possible in existing CCBC owned Council housing stock.	Improve energy efficiency of Council owned domestic properties through the completion of the boiler replacement programme to introduce energy efficient condensing boilers to all our stock.	Housing	Short/Medium
R10		Improve energy efficiency of Council owned domestic properties through the completion of the external wall insulation programme on non-traditional build properties.	Housing	Short

**APPENDIX 2**

R11		Improve energy efficiency of Council owned domestic properties through the continued implementation of the external/internal wall insulation programme on traditional build dwellings.	Housing	Short/Medium
R12		Improve energy efficiency of Council owned domestic properties through the UPVc window replacement programme that will introduce high spec energy efficient glazing.	Housing	Short/Medium
R13		Survey all CCBC owned homes to establish their energy rating and to identify least energy efficient stock. Identify an Energy Budget to act as match and support to national energy efficiency schemes and programmes to target these properties.	Housing	Short
R14	Introduce pilot projects to investigate hybrid heating systems on existing stock.	Complete hybrid gas and air source pilot on 20 flats at Martins Field, Newbridge.	Housing	Short
<b>NEW DEVELOPMENT – HOUSING</b>				
R15	Promote and encourage carbon friendly construction methods and a reduction in energy consumption in all new housing development.	Provide a policy framework within the 2 <sup>nd</sup> Replacement Local Development Plan (LDP) that presumes in favour of such constructions where appropriately located.	Planning & Regeneration	Medium
R16	Reduce energy consumption in new “Caerphilly Homes “properties.	Introduce new build specifications that aim to minimise heat loss, introduce efficient internal heating systems and reduce overall levels of carbon.	Caerphilly Homes	Short/Medium/Long
R17		Investigate utilising new battery technology to store energy within domestic properties.	Caerphilly Homes	Short/Medium
R18	Introduce carbon friendly construction methods in “Caerphilly Homes” new build programme.	Secure partnership arrangement with local steel frame off- site modular build company to build new homes in Caerphilly County borough.	Caerphilly Homes	Short/Medium
R19		Investigate and develop other off- site modular construction methods (e.g. Timber frame) for use within the Caerphilly Homes new build programme. Linking timber homes back to Welsh suppliers providing employment, shorten supply chains and reduce carbon along the Home Grown Homes.	Caerphilly Homes	Short/Medium
R20		Take a fabric first approach to Caerphilly Homes new developments to achieve an EPC band B rating on all new build properties. Concentrate on energy efficient glazing and insulation to make properties airtight.	Caerphilly Homes	Short/Medium
R21		Move away from traditional fossil fuel heating systems on Caerphilly Homes new builds.	Caerphilly Homes	Short/Medium
R22		Introduce eco- friendly materials to specification of new build properties.	Caerphilly Homes	Short/Medium
R23	Ensure Council led programmes produce energy efficient houses (EPC rating A/B).	Introduce specific conditions to the Plot Shop self-build Programme to ensure delivery of energy efficient new housing on the identified Council owned land sites.	Planning & Regeneration/Housing	Short/Medium

**APPENDIX 2**

R24	Work with and support RSL's to deliver eco- friendly housing in the county borough.	Enter into a Memorandum of Understanding with zoned RSL's to work collaboratively and share knowledge and resources to work towards delivering more energy efficient housing.	Housing	Short/Medium
R25		Support RSL's to secure the necessary Social Housing Grant and Innovative Housing Grant to take eco –friendly schemes forward.	Housing	Short/Medium
R26		Use the capital value of CCBC owned land to offset the prohibitive costs of developing low carbon/net carbon zero/eco friendly schemes.	Housing/Property Services	Short/Medium
R27	Work collectively with zoned RSL's to Introduce more modular off site construction techniques to reduce carbon used in construction.	Ensure a strong pipeline of development to make a locally based modular factory commercially viable.	Housing	Medium
R28	Develop Smart Homes.	Introduce the necessary smart infrastructure within dwellings to future proof them so they can take full advantage of emerging SMART technologies.	Housing	Short/Medium
<b>NEW DEVELOPMENT – NON DOMESTIC</b>				
R29	Update Building Regulations Part L.	Lobby to review central Building Control legislation so that it introduces more stringent controls on new builds and conversions to ensure improved energy efficiency in both residential and commercial buildings.	Planning & Regeneration	Short/Medium
R30	Promote and encourage carbon friendly construction methods and a reduction in energy consumption in all new development.	Provide a policy framework within the 2 <sup>nd</sup> Replacement LDP that presumes in favour of such constructions where appropriately located.	Planning & Regeneration	Medium
<b>TRAVEL AND TRANSPORT</b>				
R31	Reduce the number of vehicles and mileage driven by our fleet	Undertake review of fleet vehicles across the whole authority. Set targets and timescales for reductions	Policy Team/ Fleet Management	Short/Medium
R32	Reduce 'grey fleet' work mileage made by staff.	Review Grey Fleet mileage claims. Develop and implement robust travel hierarchy, policies and actions to reduce emissions.	Corporate Responsibility Transformation Team	Short
R33	Reduce the use of petrol and diesel vehicles through the implementation of the Electric Vehicle Strategy.	Implement Electric Vehicle strategy, including introducing electric vehicles and charging infrastructure across the authority	Policy	Short/Medium
R34	Reduce travel to work (commuting miles)	Review commuting patterns, produce recommendations including roll out of agile working, capitalising on changing behavioural patterns as a result of the Covid-19 crisis	Policy	Medium

**APPENDIX 2**

R35	Promote modal shift to more sustainable modes of transport.	2 <sup>nd</sup> Replacement LDP and Local Transport Plan will identify policies to make public transport more attractive and accessible.	Transport/ Planning & Regeneration	Medium
R36		Introduce a network of active travel routes throughout the county borough that will encourage CCBC staff and residents to walk and cycle more.	Transport	Short/Medium
R37		Enhance crossing facilities and improve walking and cycling routes	Transport	Short/Medium
R38		Trial implementation of pedestrian and cycle zones at schools	Transport	Short
R39		Continue with school educational programme of road and bike safety to encourage walking and cycling.	Transport	Short
R40		Promote walking buses to school.	Transport/Education	Short
R41		Introduce additional park and ride spaces at key locations on rail routes to encourage use of public transport.	Transport	Medium/Long
R42		Lobby Welsh Government and Transport for Wales for additional Valleys Metro nodes to improve connectivity and accessibility.	Transport/ Planning & Regeneration	Medium
R43	Introduce electric public transport vehicles to the local authority transport network.	Work with Stagecoach to introduce fleet of electric service buses to Caerphilly.	Transport	Short
R44	Develop electric vehicle friendly new transport interchange in the heart of Caerphilly town centre.	Work with transport for Wales and Welsh Government to realise this objective within the Caerphilly Place-making plan.	Corporate approach	Medium/Long
	<b>INFRASTRUCTURE</b>			
R45	Make street lighting more energy efficient.	Complete programme of street light replacement to LED lanterns by December 2020.	Engineering	Short
R46		Continue with programme of part light lighting in the county borough.	Engineering	Short/Medium
R47	Maximise use of recycled materials on Council funded projects and programmes.	Examine resurfacing programme to introduce higher levels of recycled aggregates (up to 50%) to surface course.	Engineering	Short/Medium
R48		Use natural materials where suitable and recycled products where possible such as bollards, bins, benches and curbs on street-scene projects.	Engineering	Short/Medium
	<b>WASTE MANAGEMENT</b>			
R49	Investigate opportunities for reducing waste within the local authority.	Less waste to landfill will result in less green- house gas emissions.	Corporate approach/Communic ations	Short
R50	Life Cycle Waste analysis	Design waste out of purchases with priority given to the purchase of goods that last longer, are reconfigurable or are repairable even if more expensive.	Waste Management	Short/Medium
R51	Packaging Review	Review how consumables and foods/drinks are made available. Priority to be given to re-useable and fillable options and phasing out of all single use containers (even if recyclable).	Waste Management	Short/Medium

**APPENDIX 2**

R52	Repair First, Recycle Last	Support, encourage and invest in a repair and care team to extend the life cycle of office furniture etc.	Waste Management	Short/medium
	<b>MISCELLANEOUS</b>			
R53	Maximise the use of intelligent IT systems to reduce our carbon emissions	Paperless office working practices to be introduced throughout the Council.	Corporate approach	Short/Medium
R54		Make conference calling the norm through appropriate IT facilities for everyone.	Corporate approach/IT	Short/Medium
R55	Encourage Community Councils to use their Community Infrastructure Levy funding to address decarbonisation at a local level.	Highlight opportunities and provide support and assistance to Community/Town Councils to encourage funding of renewable and low carbon energy schemes.	Planning & Regeneration	Short

**PRODUCE**

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES
	<b>GREEN ENERGY PRODUCTION</b>			
P1	Identify the potential for Solar power generation on non domestic building stock.	Review all roof space and prioritise for PV installation. (Look to maximise roof space for renewable energy generation).	Property Services	Short
P2	Review properties where there is Solar Thermal potential.	Review roof space for solar thermal panels, prioritising at leisure centres.	Property Services	Short
P3	Maximise green energy production on Caerphilly Homes new build domestic properties.	Investigate and where possible introduce photovoltaics, ground source and air source energy and heating to new homes stock.	Housing	Medium
P4	Investigate opportunities to turn existing CCBC owned homes into "mini power stations".	Investigate and where possible retrofit photovoltaics, ground source and air source energy and heating to existing stock. Work with WGES to establish opportunities.	Housing	Medium/Long
P5	Review Council owned land to identify opportunities for solar farms and wind turbines.	Welsh Government Energy Service (WGES) to produce viability assessment reports for reviewed Council owned land.	Policy / Property Services/Planning & Regeneration / Transformation /Welsh Government Energy Service	Short
P6	Produce green energy for CCBC consumption on Council owned land.	Develop Council owned land for solar farms and wind turbines, identifying and implementing priority projects from WGES viability assessment reports.	Corporate approach	Medium

**APPENDIX 2**

P7		Take a commercial interest in private sector solar farm developments within and outside of the county borough where opportunity presents itself.	Corporate approach	Short
P8	Produce green on shore wind energy.	Take a commercial interest in private sector on-shore wind developments within and outside of the county borough where opportunity presents itself.	Corporate approach	Short
P9	Maximise the opportunities to link locally generated electricity to Council offices.	Tredomen Campus - Implement proposals to partner with local anaerobic digester to take energy to main Council campus.	Property Services	Short
P10	Look at opportunities to invest in large scale renewable energy generation outside of the county borough.	Explore opportunities to invest in large scale renewable energy opportunities, including offshore opportunities.	Corporate approach	Short/Medium/Long
P11		Assess candidate sites for 2 <sup>nd</sup> Replacement LDP to establish opportunities for renewable energy production.	Planning & Regeneration	Short/Medium
P12	Undertake Renewable Energy Assessment of the county borough as part of the 2 <sup>nd</sup> Replacement LDP.	Carbon Trust will carry out Renewable Energy Assessment in partnership with CCBC – this will provide an existing and future energy demand baseline, inform spatial energy policies for inclusion in the 2 <sup>nd</sup> Replacement LDP, identify renewable energy targets for the county borough and identify any actions that could assist in the delivery of opportunities for renewable and low carbon energy generation.	Planning & Regeneration	Short/Medium
P13		Map renewable energy potential against proposed development, particularly strategic sites within the 2 <sup>nd</sup> Replacement LDP	Planning & Regeneration	Short/Medium
P14		Establish joint renewable energy projects with adjoining authorities.	Planning & Regeneration	Medium/Long
P15	Maximise the potential of generating electricity from landfill sites.	Maximise electricity production at Trehir and investigate whether other landfill sites could generate electricity.	Policy	Medium
P16	Investigate opportunities to produce hydro-electricity.	Work with NRW and WGES to establish potential sites for feasibility studies to be undertaken.	Corporate approach	Medium
P17	Support repowering of existing renewable energy assets.	Adopt supportive planning policy within the 2 <sup>nd</sup> Replacement LDP relating to repowering existing assets at the end of their current planning consent period.	Planning & Regeneration	Short/Medium
	<b>MISCELLANEOUS</b>			
P18	Investigate opportunities for heat production from ground source water.	Navigation Colliery – support the University of South Wales ground water heating pilot scheme.	Planning & Regeneration	Medium
P19	Work with Argoed Community Council to develop green energy eco-park at Markham Colliery.	CCBC to facilitate the project group and assist to investigate opportunities for the site.	Planning & Regeneration	Short/Medium



P20	Support energy systems that are developed for the benefit of the community.	Support appropriate renewable and low carbon energy projects which are developed by the community or benefit the host community.	Planning & Regeneration	Short/Medium
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## OFFSET

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES
	<b>GREEN INFRASTRUCTURE</b>			
O1	Adopt a Green Infrastructure Strategy.	Work in partnership with relevant agencies to develop a comprehensive, county borough wide Green Infrastructure Strategy.	Parks/Countryside/ Planning	Short/Medium
O2		Emphasis on maintaining, improving and enhancing existing green infrastructure in addition to new	Parks/Countryside/ Planning	Short/Medium
	<b>FOSSIL FUEL DIVESTMENT</b>			
O3	Examine opportunities to decarbonise the authority's investments.	Establish which companies and organisations the authority invests with.	Corporate approach	Short
O4		Develop policies to reduce investment with fossil fuel based and high emissions businesses.	Corporate approach	Short
	<b>SEQUESTRATION</b>			
O5	Encourage afforestation in the county borough.	Review land holding across the authority to identify opportunities for tree planting.	Property / Countryside/ Parks	Medium
O6		Develop and implement tree planting programme. Opportunities exist to develop tree planting schemes on land within the recognised Council owned and run country parks.	Countryside/ Parks	Short
O7		Identify land in the 2 <sup>nd</sup> Replacement LDP for a "Caerphilly Forest".	Countryside/Planning	Medium/Long
O8		Work with partners and landowners to promote and support tree planting schemes.		Medium
O9	Work with Transport for Wales to identify sites for replacement tree planting.	Identify land via the WGES Land Asset Review that will help to replace trees lost on Valleys Metro schemes.	Corporate approach	Short
O10		Collaborate with NRW to promote tree planting on NRW owned land - for example at Cwmcarn Forest.	Planning & Regeneration/ Countryside	Short/Medium/ Long
O11		Develop small community woodland projects to add to the existing climate change woodlands already planted by the Council in partnership with local groups.	Countryside/Policy	Medium/Long

**APPENDIX 2**

O12		Support existing community woodland managers and groups to expand and develop good principles of woodland management that include sustainably produced timber products		
O13		Introduce tree sponsorship - "Tree for Me" purchase scheme to residents and businesses of the county borough.	Communications	Medium
O14	Promote wetland habitats within the county borough.	Identify suitable CCBC owned land to pilot wetland habitat re-introduction and work with landowners to introduce more wetland landscapes.	Countryside	Medium
O15	Promote landscaping within new development.	Support appropriate new development with significant carbon focused landscaping as an integral part of design and layout.	Planning	Short/Medium
O16	Promote natural planting on SAB sustainable drainage applications.	Incorporate green drainage infrastructure on new schemes through the SAB application process.	Drainage/Planning	Short
O17	Use CCBC owned land to grow crops that absorb carbon dioxide.	Investigate the opportunity for CCBC owned land assets to be planted with crops that help reduce carbon in the atmosphere.	Property Services/Countryside	Medium
O18	Reduce intensity of grass cutting maintenance in parks and on highway verges.	Reduce the frequency of planned grass cutting regimes to encourage natural habitats to grow.	Parks/Highways	Short
O19	Promote more green space in urban environments.	Introduce pocket parks and green infrastructure to town centres. An example will be the implementation of the Caerphilly Place-making plan.	Parks/Countryside/ Planning & Regeneration	Medium
O20	Improve, maintain, enhance and support upland grassland as natural carbon stores	Upland landscapes are important stores of soil carbon across Wales and here in Caerphilly. They support wildlife, agricultural income and are rich parts of our heritage. Work with local common associations, agricultural partners and landowners to positively manage this resource to maximise carbon storage		
O21	Supporting Climate Smart Agriculture	Collaborate with research institutions and local landowners / farmers to support and foster knowledge transfer in agricultural production, reduce green house gas emissions and build climate resilience.		
O22		Work with landowners to explore carbon payments to create accessible and productive woodlands as carbon stores and a productive resource for construction and other uses.		
O23	Street Trees	Where practicable develop on street tree planting and management to provide shade, reduce run off and sequester carbon.		
O24	Re-wilding Pilot	Work with landowners and local authority land to reduce active management and revert to natural processes to store carbon and improve biodiversity. Carbon and ecological baselines to be taken prior and during process to appraise outcomes.		

## BUY

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES
	<b>PROCUREMENT</b>			
B1	Assist with quantifying the authority carbon baseline.	Map the procurement categories in Spike Cavell (central IT system which captures data on public sector spend) to the carbon emission factors proposed by Welsh Government and report to Welsh Government.	Procurement	Short/Medium
B2	Develop a carbon benefits toolkit	Introduce green clause to contractors acting for the Council or offering a service to the Council.	Property Services/ Procurement	Short
B3	Purchase 'locally' where possible.	Use local suppliers to reduce carbon footprint. Procurement of goods from local producers or co-operatives where possible		Short
B4	Prioritise the purchase carbon neutral/lower carbon products.	Identify where such opportunities exist and consider switching.		Short
B5	Monitor and manage purchases likely to have a significant impact on energy consumption.	Review purchase of major equipment e.g. Boiler or multiple purchase computer monitors, to ensure energy efficiency.	Procurement/Property services	Long
B6	Introduce recycled materials where possible.	Introduce recycled materials to reduce production of new products from non-renewable resources.	Corporate approach	Short
B7	Ensure an effective and efficient mechanism in measuring, recording and monitoring social value and community benefits utilising Theme's, Outcomes, Measures (TOMs) via a Social Value Measurement Framework.	Introduce innovative measures to promote local skills and employment to be built into contract - these could be e.g. co-designed with stakeholders or communities, or aiming at delivering benefits while minimising carbon footprint from initiatives, etc.	Procurement	Short/Medium
B8		Introduce innovative measures to enable healthier, safer and more resilient communities to be delivered on contracts - these could be e.g. co-designed with stakeholders or communities, or aiming at delivering benefits while minimising carbon footprint from initiatives, etc	Procurement	Short/Medium
B9		Create more opportunities for local micro, small and medium enterprises to respond to tenders for de-carbonisation work on contracts	Procurement	Short/Medium
B10		Introduce innovative measures to promote and support responsible business be built into contract - these could be e.g.	Procurement	Short/Medium

**APPENDIX 2**

		co-designed with stakeholders or communities, or aiming at delivering benefits while minimising carbon footprint from initiatives, etc.		
B11		Provide expert business advice to help voluntary community voluntary community social enterprise VCSEs and MSMEs achieve net zero carbon by 2030	Procurement	Short/Medium
B12		Introduce a requirement to make savings in CO2 emissions on la contract.	Procurement	Short/Medium
B13	Integrate life-cycle costs into procurement frameworks	Consider and evaluate the embedded carbon of products during their whole life cycle not just the upfront carbon.	Procurement	Short