

## Appendix 1. Decarbonisation Action Plan Update on progress December 2022

### Corporate and Cross-cutting Actions

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES	PROGRESS	COMMENTS
C1	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	Completed	Baseline data submitted to WG, processes in place to capture and report data
C2		Identify key carbon contributors to the baseline, each directorate to take on responsibility	Corporate Responsibility	Short	Started with reasonable progress achieved	Analysis of baselines undertaken. Corporate carbon baselines being calculated, should be completed Dec '22
C3	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	Started but too early to report any progress	Training programmes and delivery options are being assessed
C4	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	Started but too early to report any progress	Training programmes and delivery options are being assessed
C5	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	Started but too early to report any progress	
C6	Reduce plastic use as a Council.	Promotional campaign to make staff aware of their responsibilities to reduce plastic consumption.	Corporate Responsibility	Short	Started but too early to report any progress	
C7	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	Corporate Responsibility	Short/Medium	Going well with good progress	Developing ongoing links. Specific work as part of skills agenda and hydrogen project. Will be considered on a project-by-project basis.

		developing digital and smart solutions to energy transitions as well as seeking solutions to future proofing ongoing developments.				
C8		Promote research into battery and hydrogen technologies.	Corporate Responsibility	Short/Medium	Started but too early to report any progress	Consider as part of fleet transition to Ultra Low Emission Vehicles
C9	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	Started but too early to report any progress	Initial meetings with Coleg y Cymoedd to discuss what training courses can be offered to support
C10	Encourage employment opportunities in this sector.	Encourage local employment for new Council and private sector projects.	Corporate Responsibility	Short/Medium	Started but too early to report any progress	Secure partnership arranged with Caledan, a Ystrad Mynach based steel frame off- site modular build company to build new homes Partnership arranged with.
C11		Support a 'just transition' for workers by supporting those in 'traditional' high carbon industries to retrain	Corporate Responsibility	Short/Medium	Not yet started	
C12	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	Started but too early to report any progress	Training programmes and delivery options are being assessed

## REDUCE

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES	PROGRESS	COMMENTS
	<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	Started with reasonable progress achieved	All new building proposals are being identified and discussions held on how they should be designed to meet new net zero requirements The new Plas-y-Felin primary school is being designed and built to Net Zero guidelines. This will be CCBC first net Zero building. Lessons will be learnt during design and construction, which will help with future net zero carbon building across the Caerphilly CBC portfolio.
R2	Convert all lighting to LED format.	Expand existing programme of lighting upgrade to take in all CCBC owned properties	Property Services	Short/Medium	Going well with good progress	There are 11 properties identified for complete upgrade in 22/23 with a further 16 identified for investigation with strong potential. These include Tredomen Innovation and Business and technology buildings and Nant Y Parc Primary school.
R3	Consider improving building insulation levels on existing buildings.	Identify buildings that could have insulation levels increase.	Property Services	Short/Medium/Long	Going well with good progress	A programme of insulation for walls and ceilings has already taken place, covering many schools, corporate offices and care homes. The best opportunities are during roof replacements, refurbishment works and new build, where insulation levels can be greatly improved. This is already being implemented on school roof replacements and linked to the authorities Invest To Save scheme.
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	Started but too early to report any progress	Being considered as part of a comprehensive approach to all our corporate, non-domestic buildings
R5	Consider alternative heating formats to gas boilers on new build	Review opportunity to replace gas boilers when appropriate to move away from gas supply.	Corporate Approach/Property Services	Short/Medium/Long	Started with reasonable	Pilot projects have been undertaken. This is being considered wherever appropriate across our stock.

	opportunities, major refurbishments and when existing boilers fail.				progress achieved	
R6	Provide energy efficiency training to key building staff.	Provide training on Building energy management systems and good housekeeping techniques.	Property Services	Short	Going well with good progress	Training is provided on Building Energy Management Services as required. Training is provided to school staff and pupils on energy efficiency methods. Training has been identified for leisure services and will be delivered as a group event.
R7	Develop a water conservation plan.	Look at opportunities to reduce water consumption through reduced flows, demand and design.	Property Services	Short/Medium/Long	Started but too early to report any progress	Being developed by the Energy Team
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	Started but too early to report any progress	Being undertaken as part of a Corporate Review.
	<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	Going well with good progress	WHQS is driving this <b>Note that emissions from our council housing is outside the scope of our Welsh Government Carbon Baseline Reporting but will contribute to the 2050 aspiration</b>
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	Going well with good progress	WHQS is driving this <b>Note that emissions from our council housing is outside the scope of our Welsh Government Carbon Baseline Reporting but will contribute to the 2050 aspiration</b>
R11		Improve energy efficiency of Council owned domestic properties through the continued	Housing	Short/Medium	Going well with good progress	WHQS is driving this <b>Note that emissions from our council housing is outside the scope of our Welsh</b>

		implementation of the external/internal wall insulation programme on traditional build dwellings.				<b>Government Carbon Baseline Reporting but will contribute to the 2050 aspiration</b>
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	Going well with good progress	WHQS is driving this <b>Note that emissions from our council housing is outside the scope of our Welsh Government Carbon Baseline Reporting but will contribute to the 2050 aspiration</b>
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	Going well with good progress	WHQS is driving this <b>Note that emissions from our council housing is outside the scope of our Welsh Government Carbon Baseline Reporting but will contribute to the 2050 aspiration</b>
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>Completed</b>	
	<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	Started but too early to report any progress	2nd Replacement LDP preparation ongoing.
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	Going well with good progress	The pilot developments have now been completed and both sites are occupied. We are monitoring the thermal efficiency of the building/flats and the results will be shared. The fabric first approach remains our strategy at this time for future development.

R17		Investigate utilising new battery technology to store energy within domestic properties.	Caerphilly Homes	Short/Medium	Started but too early to report any progress	Our delivery partner Wilmott Dixon are assessing our options and will provide a report for us to consider.
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	Started with reasonable progress achieved	Partnership arranged with Caledan, a Ystrad Mynach based company. Our expectation is to continue the relationship on the Oakdale development which comprises of 85 new homes.
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	Started with reasonable progress achieved	Ongoing, led by Welsh Government.
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	Started with reasonable progress achieved	Ongoing
R21		Move away from traditional fossil fuel heating systems on Caerphilly Homes new builds.	Caerphilly Homes	Short/Medium	Going well with good progress	Ongoing No gas within pilot schemes and future developments. This continues to be our strategy.
R22		Introduce eco-friendly materials to specification of new build properties.	Caerphilly Homes	Short/Medium	Started but too early to report any progress	Our delivery partner Wilmott Dixon are tasked to investigate this.
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	Started but not progressing well/Not progressed	No progress with Plot Shop programme.

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	Completed	Memorandum of Understanding signed.
R25		Support RSL's to secure the necessary Social Housing Grant and Innovative Housing Grant to take eco –friendly schemes forward.	Housing	Short/Medium	Completed	<p>Housing association partners and the Council have been successful in accessing Innovative Housing Programme funding to progress 4 eco-friendly developments in the borough. Developments include the former Magistrates Court, Caerphilly (Linc Cymru), Cwm Ifor, Penyrheol (UWHA) and Trecenydd and Trethomas (Caerphilly Homes). early 2021. Learning from these developments have been feedback to Welsh Government. Welsh Government have now mainstreamed Innovative Housing Programme funding into the Social Housing Grant programme.</p> <p>Discussions continue at the Affordable Homes Partnership and during Programme Delivery Plan meetings on how partners can collaborate more effectively to delivery more eco-friendly homes.</p>
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	Started but not progressing well/Not progressed	<p>Predominantly Caerphilly owned land suitable for housing is initially offered to Caerphilly Homes.</p> <p>Caerphilly Homes are bound by statute to pay market value for land if not HRA owned. Residual Council owned sites are not viable and rely on Social Housing Grant.</p>
R27	Work collectively with zoned RSL's to Introduce more modular off site construction techniques	Ensure a strong pipeline of development to make a locally based modular factory commercially viable.	Housing	Medium	Going well with good progress	UWHA have opened a new MMC factory in the borough with ambitions to increase the number of homes they build using MMC techniques. Timber frame for the Cwm Ifor developments (R25) where built in UWHA's

	to reduce carbon used in construction.					MMC factory. UWHA has provided a presentation on the use of the MMC factory to the Affordable Homes Partnership and are in discussions with other community landlords about using the factory to build timber frames for their new developments. Welsh Government now incentivises the use of MMC in new developments through the Social Housing Grant programme and, as a result, the Council expects to see an increase in the number of new homes developed using MMC. The Council continues to collaborate in the All Wales Net Zero Carbon timber frame project.
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	Started with reasonable progress achieved	Ongoing
	<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	Completed	Comments submitted as part of Building Regulations Part L (and F) Stage 2B consultation.
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	Started but too early to report any progress	2nd Replacement LDP preparation ongoing.
	<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	Started with reasonable progress achieved	Overview undertaken and priority service areas for detailed review identified. Initial reviews undertaken
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	Going well with good progress	Grey fleet mileage reduced significantly due to COVID. Pool car options being evaluated
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	Going well with good progress	Installation of charging infrastructure identified as a priority. Phase I including 3 hubs due to be completed early 2023
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	Started with reasonable progress achieved	Put on hold during pandemic. New staff survey identified as a priority for Q4 2022/23
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	Started but too early to report any progress	2nd Replacement LDP preparation ongoing.
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	Started but too early to report any progress	2nd Replacement LDP preparation ongoing.  Review of candidate sites submitted as part of 2nd Replacement LDP preparation ongoing
R37		Enhance crossing facilities and improve walking and cycling routes	Transport	Short/Medium	Going well with good progress	A programme of minor works improvements (e.g. uncontrolled drop kerb crossing points) delivered in 2021/22. Some facilities were delivered in 2020/21 under WG's Covid response sustainable travel funding along with route INMC24 (Ystrad Mynach to Penpedairheol).  The adopted Integrated Network Map has been formally reviewed and replaced with

						the Active Travel Network Map (ATNM). The proposed routes have been prioritised (S/M/L term) over a 15 year delivery period.
R38		Trial implementation of pedestrian and cycle zones at schools	Transport	Short	Started with reasonable progress achieved	Implemented at 3 schools in 2021 (Libanus, Risca and Twyn primary schools).
R39		Continue with school educational programme of road and bike safety to encourage walking and cycling.	Transport	Short	Started with reasonable progress achieved	Although impacted upon by Covid restrictions, National Standards Level 2 & 3 training was delivered throughout the 2021/22 academic year.
R40		Promote walking buses to school.	Transport/Education	Short	Not yet started	This was not possible during the Covid pandemic.
R41		Introduce additional park and ride spaces at key locations on rail routes to encourage use of public transport.	Transport	Medium/Long	Started with reasonable progress achieved	WelTAG development work is ongoing for park & ride proposals on the Central Rhymney rail line in collaboration with Transport for Wales. Proposals should be available for wider consultation in 2022/23
R42		Lobby Welsh Government and Transport for Wales for additional Valleys Metro nodes to improve connectivity and accessibility.	Transport/Planning & Regeneration	Medium	Started with reasonable progress achieved	This work is ongoing via the RTA. A high level strategic mid valleys public transport study was recently undertaken by Transport for Wales in liaison with the RTA. This will feed into proposals to develop the South Wales Metro.
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	Not yet started	This proposal has been the victim of the Covid pandemic. Regional work will start anew via the RTA as and when WG funding becomes available under the ULEV programme.
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	Started but too early to report any progress	This work is being progressed through the Caerphilly Interchange and wider Caerphilly 2035 workstream. Proposals should be available for wider consultation in 2022/23.
	<b>INFRASTRUCTURE</b>					

R45	Make street lighting more energy efficient.	Complete programme of street light replacement to LED lanterns by December 2020.	Engineering	Short	Completed	
R46		Continue with programme of part light lighting in the county borough.	Engineering	Short/Medium	Completed	Completed January 2021. Cabinet approved continuation of reduction in street lighting operating hours in November 2022
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	Started but too early to report any progress	Suppliers have begun using lower temperature aggregates for resurfacing works
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	Started with reasonable progress achieved	Recycled materials used for bollards, benches, footbridge decks and kerbs
<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/Com munications	Short	Started with reasonable progress achieved	The Authority has signed up to the Public Sector Waste Minimisation Campaign and to this end provides infrastructure to facilitate recycling for its workforce. It has also recently signed up to the national WARPIT initiative (led by Procurement and FM)  A Waste Strategy is in the process of being developed to enhance the sustainable management of its municipal waste arising and in turn attain the statutory targets set by Welsh Government. There is a campaign in place to incentivise participation in the food waste recycling collection service which supplies feedstock for a local anaerobic digestion facility which is providing electricity for 2000 homes.
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.	Procurement/ Waste Management	Short/Medium	Not yet started	To be considered as part of Service Decarbonisation Review and Supply Chain work

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).	Catering/ Waste Management	Short/Medium	Started but too early to report any progress	<p>Consultation response submitted to Welsh Government regarding deposit return scheme.</p> <p>Being considered in development of upcoming Waste Strategy</p> <p>Community Regeneration and Town Centre Management Team to develop refill stations and eco friendly business in our towns villages and local communities and develop more areas with Plastic Free Status</p> <p>To be further considered as part of Service Decarbonisation Review or Supply Chain work</p>
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	Started with reasonable progress achieved	<p>Penallta Reuse shop has been opened in partnership with Wastesavers encouraging residents to donate items for reuse rather than taking them to the tip. Penallta Reuse Shop is the perfect opportunity to divert good condition, fit-for-purpose items from the waste stream and get them into the hands of people who can use them, for a great price.</p> <p>Scope for development of a repair centre at Penallta reuse shop as part of phase 2</p> <p>The Authority also works in partnership with Groundwork Wales' Furniture Revival Team who offer a collection, repair and reuse service for household furniture and appliances.</p> <p>Member of regional repair directory <a href="http://reparefficiencywales.co.uk">reparefficiencywales.co.uk</a></p>
	<b>MISCELLANEOUS</b>					
R53	Maximise the use of intelligent IT systems to	Paperless office working practices to be introduced throughout the Council.	Corporate approach	Short/Medium	Going well with good progress	

	reduce our carbon emissions					
R54		Make conference calling the norm through appropriate IT facilities for everyone.	Corporate approach/IT	Short/Medium	Going well with good progress	Business as usual due to agile ways of working introduced during the Covid pandemic
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	Started but too early to report any progress	Ongoing

## PRODUCE

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES	PROGRESS	COMMENTS
	<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	Going well with good progress	Several sites have been reviewed for a solar PV roof installation and sized according to the buildings electrical demand. All appear to be suitable pending the structural roof survey. Buildings include Tredomen Innovation and Lewis Girls Comprehensive.
P2	Review properties where there is Solar Thermal potential.	Review roof space for solar thermal panels, prioritising at leisure centres.	Property Services	Short	Started with reasonable progress achieved	Trinity Fields school is the best opportunity for solar thermal due to the high pool temperature. Opportunities remain at Risca, Caerphilly and Bedwas leisure facilities. Gibsons have been asked to quote for a system at these 4 sites.

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	Started with reasonable progress achieved	Ongoing, and will be a key element of WHQS II
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	Started with reasonable progress achieved	Ongoing, and will be a key element of WHQS II
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	Going well with good progress	Work reviewed 2022 and consideration for H2 and tree planting included
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	Going well with good progress	Cwm Ifor Solar Farm Project progressing well.
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	Not yet started	Not progressed, currently would increase, not provide any benefit on our carbon footprint
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	Going well with good progress	Wind Farm: Discussion with RWE continue regarding equity shared ownership scheme above Rhymney
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	Started but too early to report any progress	Ongoing

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	Not yet started	Not progressed, currently would increase, not provide any benefit on our carbon footprint
P11		Assess candidate sites for 2 <sup>nd</sup> Replacement LDP to establish opportunities for renewable energy production.	Planning & Regeneration	Short/Medium	Started but too early to report any progress	2nd Replacement LDP preparation ongoing.
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	Started but too early to report any progress	2nd Replacement LDP preparation ongoing.
P13		Map renewable energy potential against proposed development, particularly strategic sites within the 2 <sup>nd</sup> Replacement LDP	Planning & Regeneration	Short/Medium	Started but too early to report any progress	2nd Replacement LDP preparation ongoing.
P14		Establish joint renewable energy projects with adjoining authorities.	Planning & Regeneration	Medium/Long	Not yet started	Part of CCR discussions
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	Started but not progressing well/Not progressed	Not progressed
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	Started with reasonable progress achieved	Initial scoping exercise identified very few opportunities.  Cwmcarn Forest Drive study to be re-evaluated.

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	Started but too early to report any progress	2nd Replacement LDP preparation ongoing.
<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	Started but too early to report any progress	Work ongoing with Coal authority
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	Started but too early to report any progress	Discussions ongoing but will have little potential to impact our organisational 2030 targets with more potential to impact WG 2050 aspiration
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	Started but too early to report any progress	Discussions ongoing but will have little potential to impact our organisational 2030 targets with more potential to impact WG 2050 aspiration

## OFFSET

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES	PROGRESS	COMMENTS
<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	Completed	
O2		Emphasis on maintaining, improving and enhancing existing green infrastructure in addition to new	Parks/Countryside/ Planning	Short/Medium	Going well with good progress	Ongoing. Revised mowing regimes approved and a series of funded regional and local projects being undertaken through initiatives that target natural resource management. Works ongoing to achieve a strategic regional approach to



						reduce and off set carbon through initiatives.
	<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	Started but too early to report any progress	Discussions ongoing with Treasury Team <b>It should be noted that carbon emissions associated with investments are not reportable as part of organisational emissions and so have no impact on the 2030 or wider 2050 targets</b>
O4		Develop policies to reduce investment with fossil fuel based and high emissions businesses.	Corporate approach	Short	Started but too early to report any progress	
	<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	Going well with good progress	Group established to do this
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	Going well with good progress	Group established to do this
O7		Identify land in the 2 <sup>nd</sup> Replacement LDP for a "Caerphilly Forest".	Countryside/Planning	Medium/Long	Started but too early to report any progress	Being considered by Offsetting group
O8		Work with partners and landowners to promote and support tree planting schemes.	Corporate approach/ Countryside	Medium	Started with reasonable progress achieved	Ongoing
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/ Land & Property	Short	Not yet started	Not progressed. Planting which is not on our land is unlikely to be counted as part of our offsetting on the Welsh Government Carbon reporting figures
O10		Collaborate with NRW to promote tree planting on NRW	Planning & Regeneration/ Countryside	Short/Medium / Long	Started but too early to	Ongoing, consultations through Countryside regarding replanting proposals.

		owned land - for example at Cwmcarn Forest.			report any progress	
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	Started with reasonable progress achieved	Ongoing with RDP Team
O12		Support existing community woodland managers and groups to expand and develop good principles of woodland management that include sustainably produced timber products	Countryside		Started but too early to report any progress	Ongoing with RDP Team
O13		Introduce tree sponsorship - "Tree for Me" purchase scheme to residents and businesses of the county borough.	Communications	Medium	Not yet started	Not Progressed
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	Started but too early to report any progress	Ongoing via Countryside Svs
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	Started but too early to report any progress	Ongoing via Countryside Svs
O16	Promote natural planting on SAB sustainable drainage applications.	Incorporate green drainage infrastructure on new schemes through the SAB application process.	Drainage/Planning	Short	Going well with good progress	Ongoing
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	Started but too early to report any progress	Land Economics have been commissioned to explore and report on the timber supply chain locally that includes an analysis of the embedded carbon of the supply and its use

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	Going well with good progress	Report presented to the Environment and Sustainability Scrutiny Committee on 26th of October, which set out proposals to reduce grass cutting frequencies at specific locations to enhance biodiversity. The report was unanimously supported and will now be considered by Cabinet in December.
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	Started but too early to report any progress	Ongoing
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	Countryside		Started with reasonable progress achieved	Ongoing via RDP/Countryside
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.	Countryside		Started with reasonable progress achieved	Ongoing via RDP/Countryside
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.	Countryside		Started but too early to report any progress	Ongoing via RDP/Countryside/Offsetting Group

O23	Street Trees	Where practicable develop on street tree planting and management to provide shade, reduce run off and sequester carbon.	Planning & Regeneration		Started but too early to report any progress	Ongoing. These features are considered, especially in relation to SAB legislation where it is one of a number of requirements that have to be considered.
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.	Countryside		Started but too early to report any progress	Ongoing via Countryside Svs

## BUY

REF	PROJECT	ACTION	DELIVERY BY	TIMESCALES	PROGRESS	COMMENTS
	<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	<b>Completed</b>	Information provided via Spikes Cavell, however, WG reporting guide and process had inconsistencies in terms of the methodology and proposed approach. This was fed back to representatives of WG. WG SIC categories and Emissions Factors mapped to Spikes Cavell & UNSPSC codes
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	Started with reasonable progress achieved	An approach to the introduction of green clauses and defining technical specifications being considered, agreed and implemented on a Corporate basis via

						associated officers and advice and guidance provided across the Council. working group(s). WLGA have developed a Sustainable Procurement Toolkit which is to be launched in January 2023
B3	Purchase 'locally' where possible.	Use local suppliers to reduce carbon footprint. Procurement of goods from local producers or co-operatives where possible	Corporate approach	Short	Going well with good progress	Business as usual. In the Council's Programme for Procurement including KPIs and Social Value Policy. Supplier Relationship Officer (SRO) continues to work with local supply chain and across the Council. E.g. SRO worked with RDP re: food producers and understanding local food supply chain. Working on a regional basis via Gwent, South East Wales and nationally via the WLGA.
B4	Prioritise the purchase carbon neutral/lower carbon products.	Identify where such opportunities exist and consider switching.	Corporate approach	Short	Started with reasonable progress achieved	Please refer to B2 above
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	Started with reasonable progress achieved	Please refer to B2 above
B6	Introduce recycled materials where possible.	Introduce recycled materials to reduce production of new products from non-renewable resources.	Corporate approach	Short	Started with reasonable progress achieved	Please refer to B2 above
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	Started with reasonable progress achieved	Social Value Policy and the use of TOMs agreed by Cabinet in July 2021. Extensive consultation across the Council and with Supply Chain. Decarb Strategy included within SV Policy. Information published on the intranet and intranet. Further work on the TOMs methodology proposed for 2022.

B8		Create more opportunities for local micro, small and medium enterprises to respond to tenders for de-carbonisation work on contracts	Procurement	Short/Medium	Started with reasonable progress achieved	Please refer to B2 above
B9		Provide expert business advice to help voluntary community voluntary community social enterprise VCSEs and MSMEs achieve net zero carbon by 2030	Procurement	Short/Medium	Started but too early to report any progress	Ongoing
B10		Introduce a requirement to make savings in CO2 emissions on LA contract.	Procurement	Short/Medium	Started but too early to report any progress	This information to be captured in our processes and procedures moving forward.
B11	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	Started but too early to report any progress	