

ONE PLANET CARDIFF – ANNUAL REVIEW

CLIMATE CHANGE (COUNCILLOR CARO WILD)

AGENDA ITEM: 3

Reason for this Report

1. To note progress on the One Planet Cardiff Strategy and associated Carbon Reduction analysis.
2. To introduce a standardised methodology to model a pathway to net zero by 2030, and
3. To approve the refreshed action plan in light of the new Administration's ambition for a Stronger, Fairer, Greener City.
4. To set out the initial steps that the Council is taking in response to the Motion agreed by Full Council in September 2022 on Climate Change and Climate Justice.

Background

5. We are in the early stages of a man-made climate crisis, with severe consequences for humanity and future generations around the world, including Cardiff. The over-heating of the planet's atmosphere has been caused by the unsustainable use of the earth's resources, and particularly by the associated carbon emissions.
6. Cardiff cannot shy away from the fact that our citizens emit more carbon than the world's average and as the capital city of a developed nation have helped profligate an environmentally unsustainable economy.
7. The current and future risks to humanity from these threats include:
 - Rising sea levels will submerge currently inhabited land and increase the likelihood of flooding
 - The climate will get progressively more unstable with storms and heatwaves increasing in regularity and intensity
 - Global heating is making some parts of the world uninhabitable, leading to the displacement of millions of people
 - Drought, storms and changes to the weather seasons impact farming and global food production, leading to food shortages and price increases

8. Whilst it is likely that poorer and hotter parts of the world will be more seriously impacted, as an inter-connected global city, Cardiff will also feel the impact of these threats directly and indirectly.
9. We know it would be almost impossible to reverse climate change, but if cities and nations around the world act now we can stop the impacts from getting far worse.
10. The Council declared a climate emergency in 2018 and then published its strategic response to this in the One Planet Cardiff (OPC) Strategy in 2021. One Planet Cardiff established two overarching goals:
 - for the Council to be Carbon Neutral in its activities by 2030, and
 - to work in partnership with stakeholders to develop a pathway for a Carbon Neutral City by 2030.
11. Since then, significant progress has been made by the Council and key partner public sector organisations in identifying the key high impact priorities for action that need to be focussed on, developing a robust programme for change, and starting to make tangible carbon reduction improvements.
12. The Council's internal policy position has also strengthened over the intervening period. The approval of the new Administration's "Stronger, Fairer, Greener" strategy places Climate Change at the centre of the Council's agenda.
13. Full Council debated and passed a Motion in September 2022 around climate justice and the impact of climate change on nations around the world, many of which produce far fewer emissions than more developed nations. The motion calls on the council to commit to being a 'globally responsible city' and also reinforced the commitment to acknowledge and tackle the global consequences of climate change. The One Planet Cardiff Strategy and Action Plan set out a number of the steps that the Council will take to respond to the Motion.
14. This report is the first review of the OPC Strategy. It records the progress that the Council has made so far, both in striving to reduce the climate implications of our actions and to build greater resilience to the effects of climate change that we're already experiencing.
15. The report updates and adds detail to the programmes, projects and actions that will deliver these overarching goals. Details of the OPC strategy and how it was developed can be found at www.oneplanetcardiff.gov.uk. A summary of the main point of progress across the OPC action plan is provided in the Appendix to this report and discussed in more detail below.
16. As part of the Welsh Government's ambition for a Carbon Neutral public sector in Wales the Council's operational emissions are calculated annually and submitted to WG. The findings of this first annual Operational

Carbon Analysis are also discussed, along with carbon statistics produced by Central Government relating to the city as a whole. This reporting provides the basis for the monitoring of our progress against the One Planet Cardiff 2030 target.

Issues

Analysis of the Council's Annual Operational Carbon Emissions

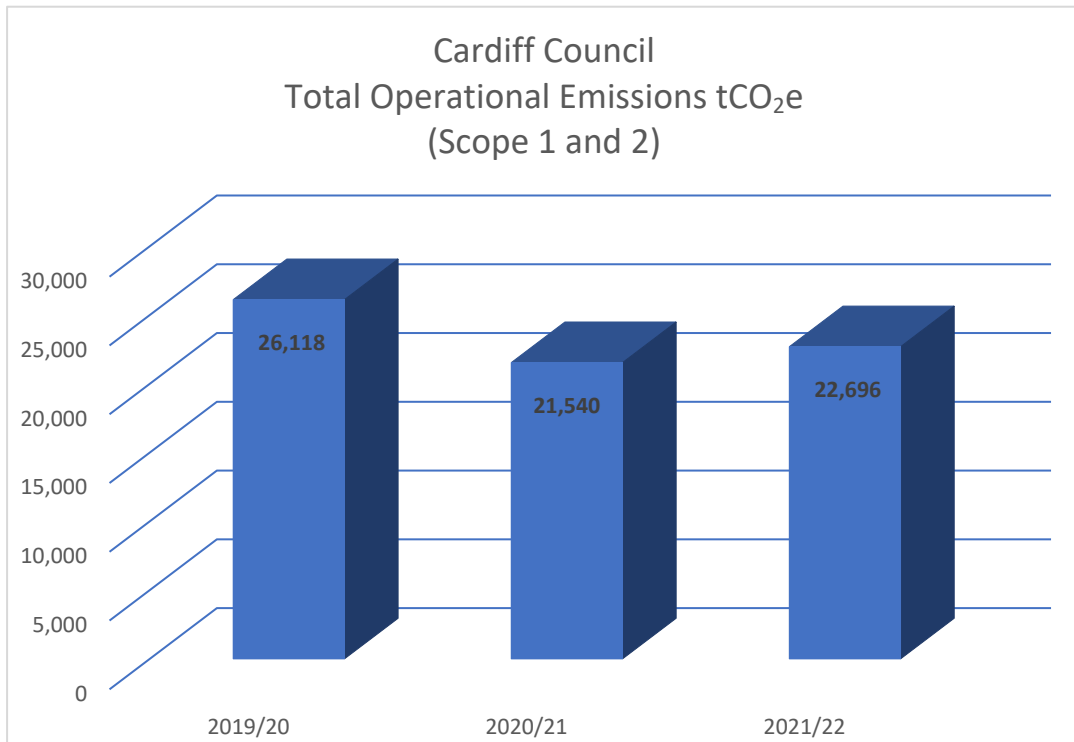
17. The 2021 One Planet Cardiff Strategy reported the Council's estimated carbon emissions at a 2019/20 baseline year, alongside an analysis for 2020/21. This was to ensure that the One Planet Cardiff carbon baseline related to "normal" pre-pandemic activities, so as not to be skewed by the various implications of the Covid lockdowns.
18. The key recognition from that analysis was that the carbon emissions "caused" by the Council's procurement activities dwarfed all other types of more direct emissions from heating and powering buildings and from our travel and mobility activities (referred to at the time as "Scope 1" and "Scope 2" emissions, with "Scope 3" referring to indirect (or "caused") emissions). However, some significant issues with the overall methodology – defined nationally - for calculating procurement emissions were noted at the time ¹.
19. Since then, the Welsh Government carbon reporting framework methodology has been amended. This year's reporting has shifted focus from the Scope 1, 2 and 3 approach, to "activity" based reporting under the headings of:
 - Buildings
 - Fleet
 - Business travel, commuting and homeworking
 - Waste
 - Land based emissions and sequestration
 - Renewables
 - Supply chain (procurement)
20. As this presents a more meaningful subdivision, which relates more directly to the OPC themes and action plan, officers have reworked the 2019/20 and 2020/21 data using this methodology and have used this to form the basis of the analysis for this report.
21. However, this changed methodology means that direct comparison between the current reporting year and the Council's published baseline is difficult². Therefore, in order to ensure that the first year's progress is

¹ See www.oneplanetcardiff.co.uk for a fuller explanation of the 2021 Carbon Reporting methodology and terminology

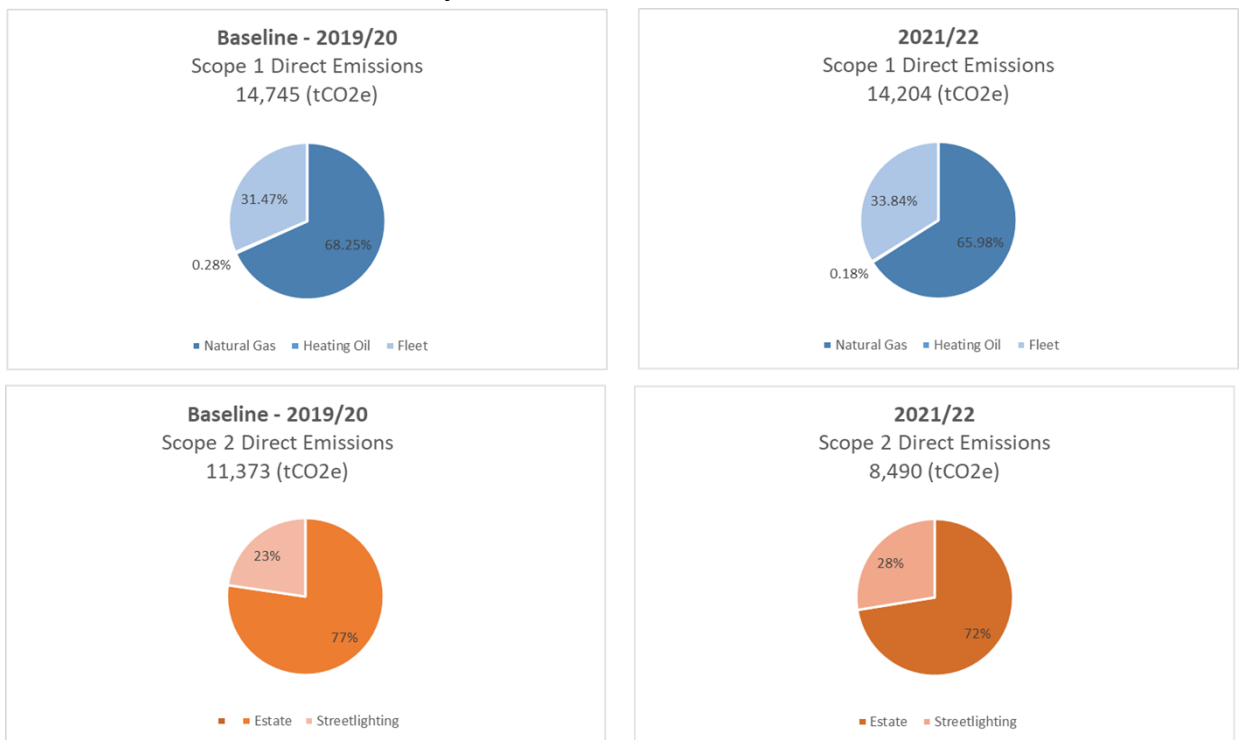
² In particular, the current WG methodology includes some "well-to-tank" emission factors, which have been used to account for the upstream emissions associated with extraction, refining and transportation of the fuel sources to an organisation's site (or asset), prior to combustion. These were considered to be external/caused emissions in the 2019/20 baseline

properly recorded we have also included an analysis based on the original methodology to ensure a like-for-like comparison as follows.

22. Excluding Scope 3 emissions this analysis showed that the Council's direct operational emissions (Scope 1 + Scope 2) reduced from 26,118 tonnes CO₂e to 22,695 tonnes between 2019/20 and 2021/22. This represented a 13% reduction with the majority of this observed in electricity consumption. The charts below give further details.



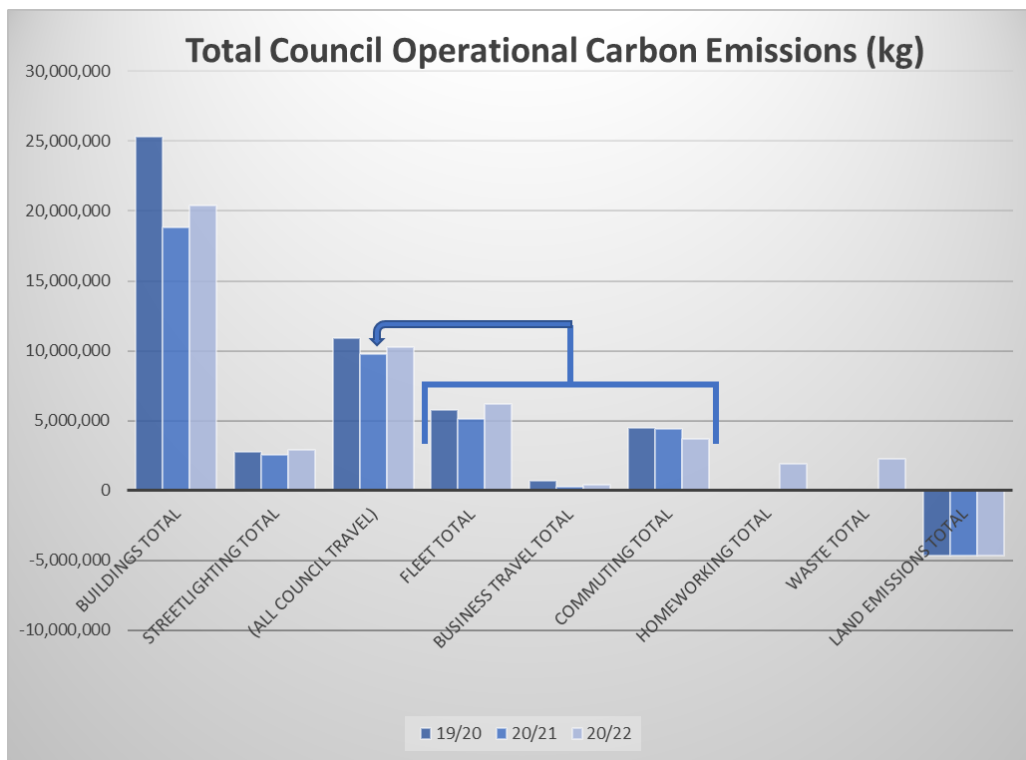
23. The more detailed analysis that now follows is based on the new WG



calculations. See this link [Welsh Public Sector Net Zero Carbon Reporting Guide \(gov.wales\)](https://gov.wales/government/welsh-public-sector-net-zero-carbon-reporting-guide) for a fuller explanation of WG's methodology.

reporting methodology. Overall, it is important to understand the current data in the light of the highly abnormal circumstances associated with the Covid Pandemic, as well as changing accounting methodologies. In particular, the figures show a “bounce-back” from the pandemic year as activities resumed, and now include the “upstream” emissions not previously counted, along with some new elements attributable to waste and homeworking as described below. on that basis the detailed analysis is not directly comparable with the original OPC report the general trend and observations are consistent.

24. The chart below shows how emissions (calculated with the new WG methodology) changed over the last three years on an “Activity” basis.
25. Excluding the emissions from the Supply Chain/Procurement category the Council’s operational Carbon Emissions reduced by 4% between the 2019/20 base year and 2021/22.



26. Building emissions reduced by an overall 18% over the three year period but with a slight (8%) increase in the year 2020/21-21/22, This increase was expected, and reflects the reopening of key buildings post-lockdown, but overall the downward trend was still strong. The majority of the decrease was observed in electricity consumption with gas emissions (largely associated with heating) still relatively slow to decarbonise.
27. Street Lighting emissions increased slightly over the period, though the figures disguise some significant work done on the Council’s programme of LED replacement and dimming work. In particular, a large element of this work was completed prior to the 19/20 base year, delivering a 50% carbon reduction in treated areas. A worldwide shortage of electronic equipment then slowed progress over the Covid period with work only able

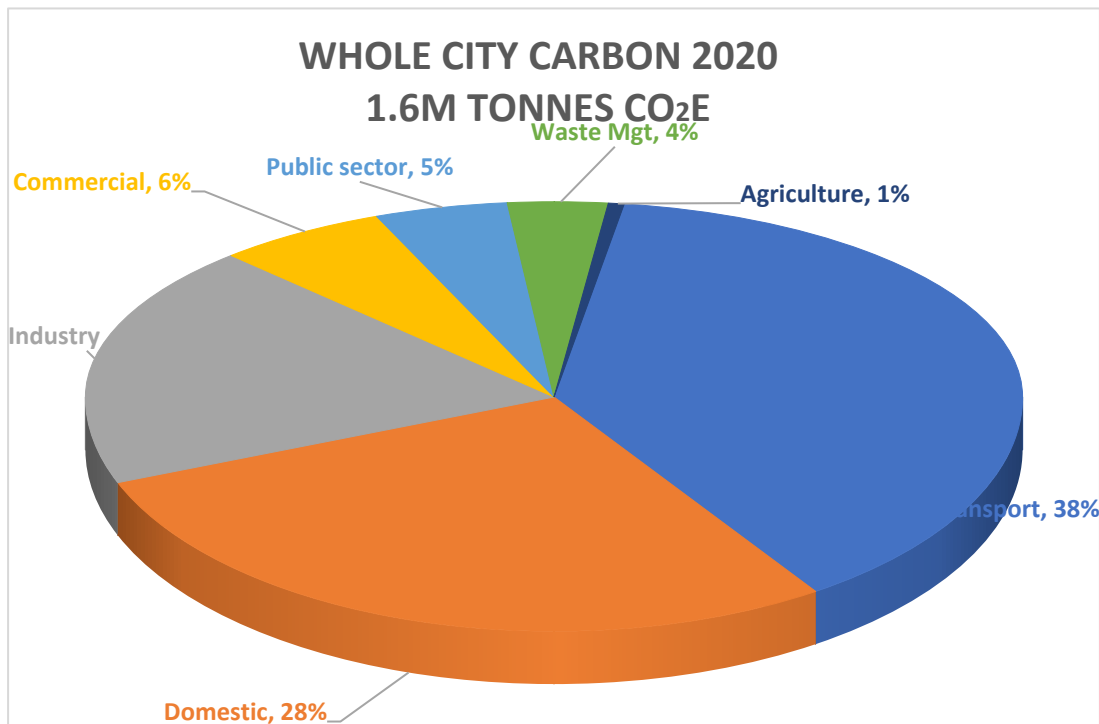
to resume at pace in late 21/22 and meaning that the data associated to the latest work is not fully captured in the report. On that basis it is anticipated that a more significant impact will register the next reporting year. It should also be noted that the moderate increase during the 21/22 year is likely to be the result of new street lighting being added to the baseline figure as new roads in new developments were adopted

28. The Council's commuting emissions reduced by 17% since the baseline year, with the downward trend persisting through the reporting period. Business travel also decreased, reflecting the significant uptake of on-line meetings across the organisation.
29. The figures for "Land Emissions" show the effects that trees and green infrastructure on the Council's land have in capturing, or sequestering carbon thus having a positive effect on carbon reduction. The static figures disguise some positive progress made in extending our tree canopy since the true effects of new planting aren't captured until the trees start to mature.
30. Three key factors were noted in this analysis which held back some otherwise positive progress:
 - Emissions from our fleet increased, partly because of the Council's Covid protocols which limited or prevented vehicle sharing and therefore triggered more individual trips. This situation is expected to be rectified in the current financial year now that most of these restrictions have been lifted;
 - For the first time, the report includes emissions caused by our practice of asking people to work from home (i.e. estimates of the carbon costs of heating and powering private residences are now included); and
 - Due to a breakdown of one of the waste processing plants in the city a small element of our waste needed to be sent to landfill in 2021/22. Though this was for only a brief period, with the issue now fully rectified, the associated emissions for the year were recorded and included in the analysis. Additionally, the WG methodology now attributes a small portion of the waste processing emissions at the first point of processing for all non-landfill waste streams.
31. Supply chain or procurement emissions still account for the huge majority of the Council's operational carbon footprint but as noted, the methodology used for assessing this complex area has significant limitations. WG are aware of this limitation and have instigated several pieces of work aimed at improving the analysis framework. In view of the current limitation of this methodology it is proposed to hold back on a detailed response until a more accurate and reflective approach is adopted. It is still recognised that Procurement remains the biggest source of operational emissions and is therefore a central pillar of our One Planet Cardiff strategy. The Procurement team have made significant progress in work to understand the Council's supply chain footprint and to identify the highest carbon spend areas. Cabinet has also approved a new "Socially Responsible

Procurement Strategy” which has carbon, climate change and circular economy as central themes.

Analysis of Cardiff’s City-wide Emissions

32. Central Government’s Department for Business Energy and Industrial Strategy (BEIS) estimates and publishes carbon emissions at a local authority level annually. These figures relate to calendar years and the latest available data relates to 2020. These figures showed that emissions across the entire City boundary (i.e. relating to all citizens, organizations and visitors in the city) stood at 1.6 million tonnes, representing a reduction of 12% since the 2019 1.8m Tonnes recoded in the 2019 base year. The chart below shows how this is distributed amongst the key sectors in the city.



33. Transport remains the highest emitting sector for the city, contributing 607,900 tonnes of city emissions in 2020. This had reduced by over 20% from 749,000 tonnes CO₂ in 2019. Domestic emissions were the second highest, accounting for 469,800 tonnes CO₂ in 2020, with a more modest decrease of 2.3% since 2019. These observations are likely to have been affected by the lockdowns in 2020 with fewer people travelling and more people working from home.

34. The table below gives more details of the distribution of emissions for key sectors, and how these changed over the two reporting periods. They particularly reflect the need for a strong and collaborative focus across the city on the decarbonisation of Transport, Domestic heat and power, and industry, and this data is shaping the Council’s response to the climate emergency.

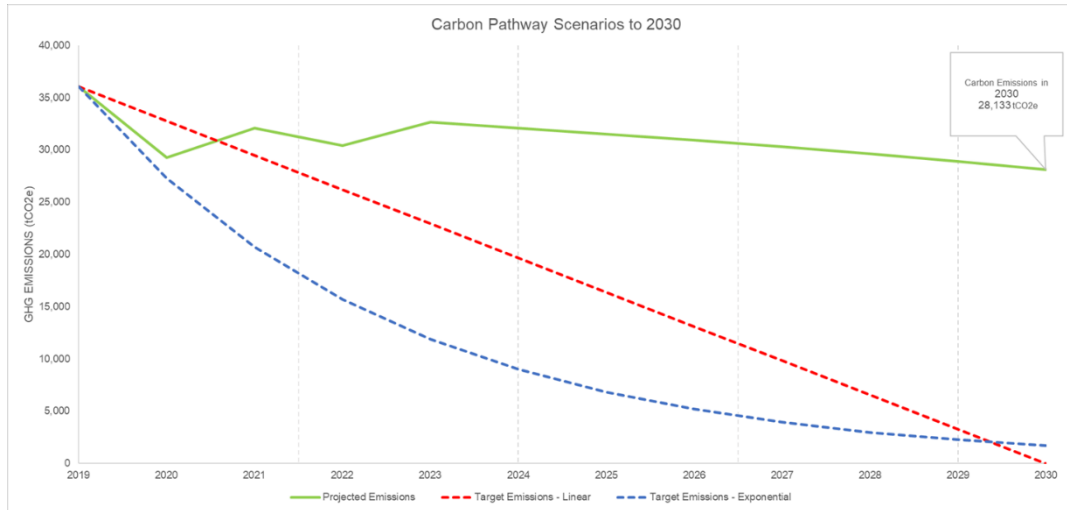
% Of City-Wide Carbon Emissions by sector (Source: BEIS)

	Transport	Domestic	Industry	Commercial	Public sector	Waste Mgt	Agriculture
2019	41%	26%	17%	7%	5%	4%	1%
2020	38%	29%	17%	6%	5%	4%	1%

Modelling the Impact of our Projects and Plans – a ‘Pathway to Net-Zero’

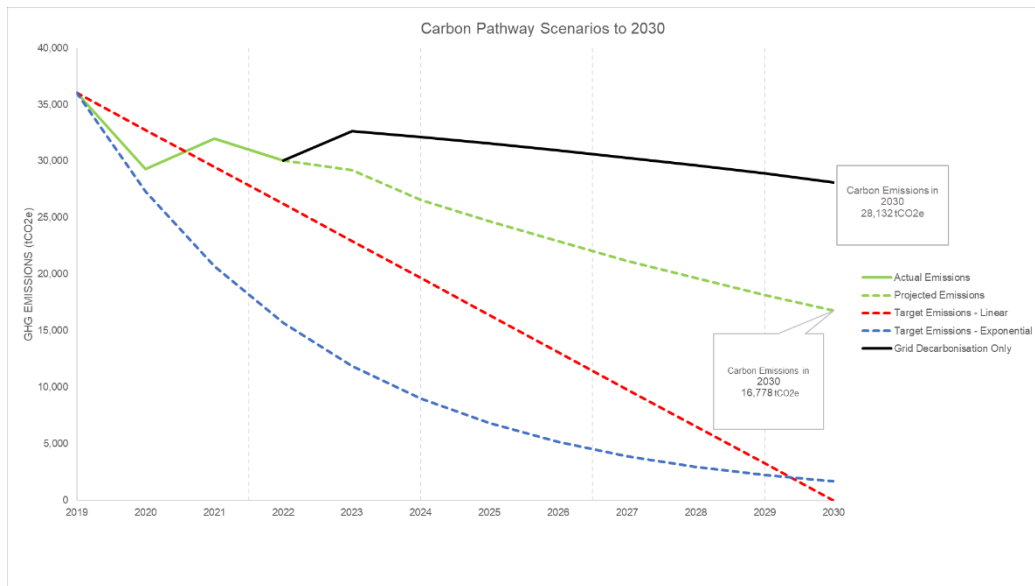
35. Since the approval of the One Planet Cardiff Strategy significant progress has been made in developing and enhancing methodologies to model and predict the impacts of current and future projects and programmes. This is a crucial step and defines a so-called **Pathway to Net Zero**. It will assist in clearly tracking progress and to set meaningful interim targets for the remainder of the decade. It will also allow us to understand the gaps and challenges in the programme at the earliest opportunity and will assist in decision making and prioritisation of projects across all our activities.
36. The current focus of the work is on the Council’s operational carbon and the initial project impact modelling done for the 2021 OPC report has been used as the basis of the work. A methodology has been developed that can show graphically how known and approved projects will affect the bottom line of the Council’s carbon emissions, when these will impact over the years to 2030, and what all of the projects will achieve in aggregate. In doing this the model shows the gaps that are left and allows new or amended project proposals to be examined for their potential impacts.
37. The model includes assumptions about grid decarbonisation (effectively the “do-nothing” scenario of waiting for renewable energy provision to increase nationally) and can adapt in the event that baselining and carbon reporting methodologies change.
38. Currently, procured goods and services (Scope 3) emissions have not been captured in the pathway as the methodology and guidance for calculating emissions and setting target is under review.
39. The chart below shows the progress to date (reflecting data discussed in the sections above) and then projects a “do nothing” scenario, relying solely on national predictions for grid decarbonisation. The resulting green line ³is then compared against two target lines showing where the Council needs to be in the journey to net zero (one linear (in red) with approx. 10% reduction per annum, and the other exponential (in blue) which would involve deeper and more impactful interventions earlier on in the timeline). The gap between the green and red lines effectively represents notional annual targets for carbon savings.

³ This methodology takes the current actual/observed annual emissions data between 2019/20 and 2021/22 and uses the projected emissions conversion factors as issued by BEIS in 2021. Grid decarbonisation has actually occurred at a rate faster than shown in the BEIS 2021 projected conversion factors and explains the apparent increase in emissions in 2023. This is not an increase in overall emissions, but an adjustment as forecast emissions (which are higher than the actual recorded levels) take over from actual ones.



40. Taking this as the base position the model then allows our various decarbonisation projects to be added, based on their anticipated carbon reductions over time. This then causes the green line to descend, showing the individual and collective impacts of the OPC programme. The graph below is an example which includes the following known projects:

- building decarbonisation (according to the currently approved Estate Decarbonisation Plan (which is being reviewed))
- a transition to a low emission fleet.
- full replacement of all streetlighting to LED, and
- a tree planting and biodiversity programme under the banner of Coed Caerdydd



41. Limiting our actions solely to these projects still leaves an anticipated carbon gap of 20,566 tCO₂e in 2030, illustrating the scale of the additional challenge that faces us.

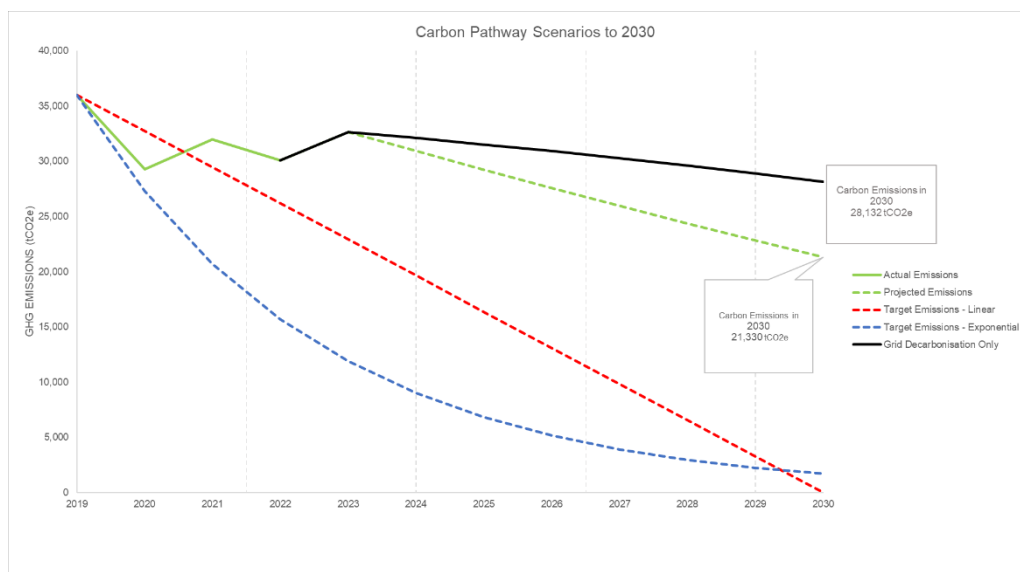
42. This methodology has been used to underpin and inform our refresh of the OPC action plan. The remainder of this report focuses on successes, and challenges experienced to date in each of our key areas of work and recommends areas of focus and acceleration over the next period of our work.

ACTION PLAN REVIEW - Buildings:

43. The way in which we all heat and power our buildings in the UK is still heavily dependent on high carbon fossil fuels. Emissions from the Council’s buildings, schools and offices are the single largest element of its direct carbon footprint, whilst emissions from all of the domestic properties across Cardiff in the city are responsible for close to a third of the carbon footprint of the city as a whole. Across the sector, there have been some very significant carbon reduction outputs experienced through the decarbonisation of the electricity grid but carbon from heating, which remains dominated by gas, is still a major challenge.

Council premises:
(Carbon Neutral Council action)

44. The Council has a long track record of addressing energy efficiency in our operational estate and, alongside national grid decarbonisation, has already reduced our building’s carbon emissions from over 40,000 tonnes in 2014/15 to just over 18,000 tonnes in 21/22 (excluding leisure centres).
45. The Council’s current Estates Decarbonisation Plan includes an approved target to remove 60% of carbon emissions by 2030. The graph below shows what this scenario does to the Pathway analysis model. It is clear that the approved plans are not enough and so the strategy is being reviewed, looking for opportunities for deeper decarbonisation.



46. We know that the remainder of the journey to 2030’s Carbon Neutral goal remains challenging. Many of the initial easy options have already been instigated (LED replacement bulbs etc), however the vast majority of

required work in regards to scale and resource still lies ahead. This will need to address much harder problems, especially around large scale / estate wide refit, insulation, the removal of fossil fuels from our heating systems, and the need to increase renewable electricity supplies in line with growing electric heat demands.

47. In response, the Council has already:

- Instigated a programme of smart monitor installations and energy performance benchmarking tools in key buildings to develop a much better understanding of how they perform;
- Focussed on a series of roof mounted Solar proposals to support and decarbonise on-site electricity requirements;
- Commenced a pilot scheme to install an air source heat pump in one of our existing schools, joining some solar generation, energy efficiency measures and smart building controls at the site, to develop prototype for net zero retrofit;
- Commissioned work to design one of our new-build schools to Net Zero standards as a pathfinder for all future School construction;
- Published a position statement on the Council's own new buildings which requires all commissions from 2024 onwards to be designed to net zero carbon standards; and
- Commissioned a study, drawing from the above data and pilots, to advise on a fully costed programme of retrofit activity across the whole estate over the rest of the decade.

48. This work will culminate in a proposed new Estates Carbon Reduction plan that will present targets, costs, options and delivery models for the Cabinet to consider as part of the One Planet Cardiff strategy's 2030 ambition. The outputs from this study will inform the contribution that buildings will make to the net zero target and indicate the scale of capital investment required.

***Domestic Premises:
(Carbon Neutral City action)***

49. On a city-wide scale Domestic energy efficiency is an ever-more significant issue with spiralling fuel prices central to the current cost of living crisis. The Council has been working on domestic energy efficiency schemes for many years but is now gearing up to escalate this work significantly by:

- Procuring a scheme to upgrade all council owned low-rise blocks of flats;
- Continuing to apply for and implement Welsh Government grant funded domestic retrofit schemes;
- Working with Cardiff Capital Region to support an additional scheme targeting Energy Company Obligation (ECO) funding towards households in fuel poverty.

50. One Planet Cardiff set a target of retrofitting 2,000 homes per year using these and any other emerging opportunities by 2024⁴.
51. Forty new build Council Houses are also under construction which have been designed to near Zero carbon standards, with solar PV, ground source heat pumps and electric boilers and a local energy management plan to optimize the linked energy systems. These properties are due for completion in 2023 – setting a standard for new Council homes going forward. These form the exemplar scheme in a wider programme delivering over 1,100 new homes (Council and privately owned) which are already exceeding national standards for energy efficiency.
52. Although this activity collectively marks good progress, the work will be limited to certain fuel poor and Council owned categories of housing and the target won't reach the majority of the City's other domestic properties. Whilst the Council cannot hope to directly tackle all properties that fall outside of these limitations, it is in a central position to highlight the issues, to lobby for co-ordinated policy and partnership action, and to signpost residents to reliable information and support.
53. More than any other area in the climate and decarbonisation agenda, this issue represents an obvious opportunity for clean economic growth, and new skills and business development, with possibly close to 8-10,000 homes per year estimated to be in need of some sort of energy efficiency upgrades in the city over the next decade.
54. Active discussions on this agenda have taken place over the last 12 months, at the local, City Region and National Level, and it is important that these reach a defined conclusion soon. A nationwide retrofit scheme is desperately needed and the Council is gearing up to lobby for and help to deliver this.

***City Scale Building Decarbonisation
(Carbon Neutral City action)***

55. The Council is also working on this building decarbonisation agenda a City-Wide scale and in a partnership context:
 - Our Climate Emergency Board (CEB) has brought together major public sector, academic and utility organisations in the city, each of which also has an active decarbonisation plan in place, to share and encourage best practice. A specific CEB sub-group has now been established to focus on our collective endeavours to decarbonise the city's public estate; and
 - Our Planning and Building Control service is also working hard to deliver local and national policy for near zero carbon buildings. The replacement Local Development Plan is also being shaped to have sustainability and climate change as a central driving force. A position statement on the current policy context and expectations for new development was

⁴ This category of decarbonisation falls outside of the Council's direct operational carbon footprint and so isn't included in the Pathway analysis.

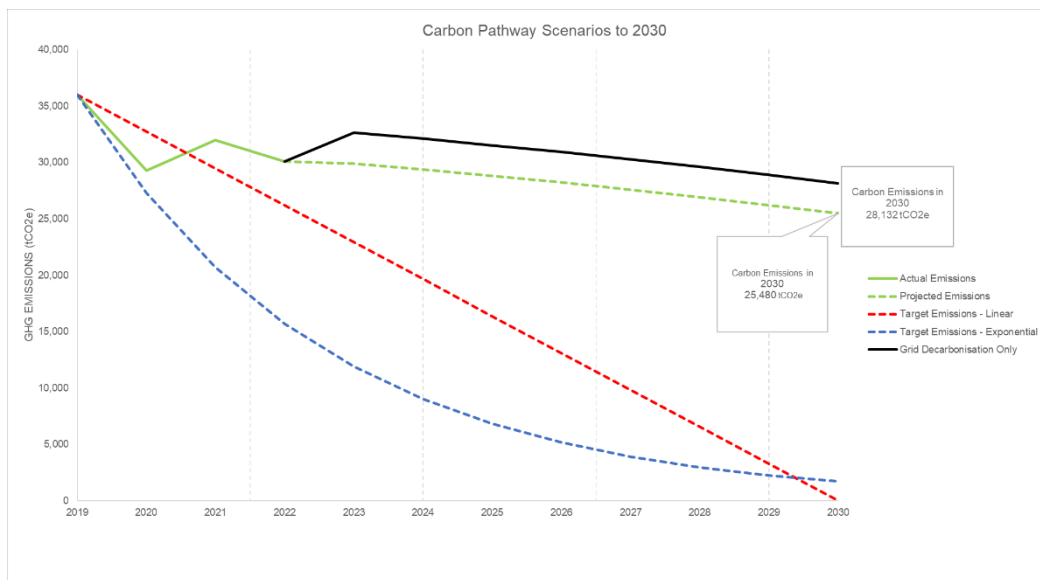
published in 2021. Success in this area will need the co-operation and partnership of developers in the city to ensure that new development does not add to our carbon and climate challenges. New development needs to be fully engaged with climate concerns and ready to help deliver the low carbon vision of One Planet Cardiff.

ACTION PLAN REVIEW - Mobility

- 56. Government figures estimate that emissions associated to transport account for 38% of the City’s carbon footprint, making it the highest impacting sector. The Council’s own transport activities (including fleet vehicles, staff business travel and staff commute) represent its second largest operational carbon cost with an estimated 10,000 tonnes of CO2 emitted in 21/22 – equivalent to half of the emissions attributed to our buildings.

**Council Mobility
(Carbon Neutral Council action)**

- 57. The Council’s Fleet Transition Action Plan is actively examining the operational mobility footprint of all service areas. It sets out a target to transition the Council’s fleet of vans, car and refuse collection vehicles to electric Vehicles (EV). To date, 53 of the Council’s fleet vehicles are now electric with the remainder due for replacement by 2025 (subject to a review of the current program which is underway in light of current shortages of vehicles nationally). This includes 10 new electric refuse collection vehicles which are now operational. The graph below shows the anticipated impact of full fleet decarbonisation over the remainder of the decade.



- 58. The way in which the Council uses “grey fleet” – where staff use their own cars on Council business - is also being examined for opportunities to decarbonise. Carbon emissions arising from this reduced by a dramatic 45% over the period 2019/20 to 2021/22. This is likely to be reflective of a significant increase in on-line meetings triggered by the lockdown but there

was an upward trend between 20/21 and 21/22 which needs to be carefully considered and understood.

59. Carbon emissions associated with staff commute have reduced by 17% between 2019/20 and 2021/22. This is assisted by current hybrid/home working arrangements which are still in place in many parts of the Council. However, a very large number of our staff, especially in Schools, Communities and Waste services, still need access to places of work.
60. The issues around Council mobility are complex, touching on HR policy for travel, diverse operational needs in different service areas, our future proposals for hybrid working, our strategic estates strategies, and especially on staff's own personal choices around travel mode and car purchasing. Reflecting this complexity the Council has set up a task and finish group, bringing together major stakeholders across the Council to develop an action plan for the remainder of the decade which can then be assessed and included in our Pathway model. As well as looking closely at our operational needs and hybrid working policies to reduce unnecessary journeys, we'll also be rolling out a range of staff incentivisation initiatives to encourage greater modal shift to active/low carbon travel.
61. Though hard to quantify, transport emissions caused by our procurement activities through deliveries and distribution are likely to exceed this direct operational total.

Citywide Mobility **(Carbon Neutral City action)**

62. The way in which we all move around our city for work and leisure is already on a low carbon trajectory, supported by the actions set out in the Transport White Paper and Low Emission Transport Strategy. Progress to date includes:
 - An ambitious programme of traffic calming measures and cycling infrastructure provision which is well underway;
 - A fleet of 36 electric buses which is now in operation throughout the city and the Council is seeking to increase this through grant funding provided by the Welsh Government by 2023;
 - The council is working with the Burns Delivery Unit on active travel, bus and rail improvements between Cardiff and Newport on a Newport Road corridor;
 - The council is working with Transport for Wales on integrated ticketing with the first phase bus and rail trial planned between Cardiff and Newport in 2023 to 2024
 - Proposals for electrification of the railways in the city are well advanced including further funding decisions on the South Wales Metro;
 - a series of 20 miles per hour zones is in place throughout the city and the Council is working with the Welsh government under the roll out of the national 20 mph scheme in Cardiff by September 2023;

- work with schools on safety and active travel continues and will be scaled up in line with the “one Planet Schools” pledge initiative referred to in paragraph 105 below.
 - The installation of over 70 publicly accessible EV charging posts in residential areas and public car parks with plans for a continued roll out of these being developed; and
 - A Cardiff Capital Region funded electric taxi initiative which will enable taxi drivers to trial EV taxis to aid in their future purchase and investment decisions.
 - A road user charging scheme to reduce the number of cars coming into the city centre is also under consideration
63. However, it is critical to note that this good work will also need to be supported by public campaigns and information aimed at encouraging and supporting people and businesses to make healthier and more environmentally sustainable travel choices and this will form a major part of our Behaviour Change strategies discussed below.
64. The Council is also working with partner organisations across the city who are known to have very similar mobility challenges, to investigate how combined and aligned actions may help to drive deeper carbon savings and enhance transport management across Cardiff. Our Climate Emergency Board has established a specific Fleet and Mobility sub-group to look into opportunities for collaboration and this is soon to report on some joint EV procurement, collaborative EV charging and co-ordinated staff behaviour change proposals.
65. Overall, the imperative is clear for us to all reduce the number of unnecessary motorised journeys in the city, to enable healthier and more environmentally sustainable active travel modes, and to support a transition to low carbon fuels for any remaining journeys.

ACTION PLAN REVIEW - Supply Chain and Procurement
(Carbon Neutral Council action)

66. Notwithstanding the reporting difficulties described earlier, emissions arising indirectly from the Council’s procured goods and services are known to account for for well over 80% of operational carbon impact. This area of work has therefore been subject to significant analysis and review over the past year and all staff involved in specifying, sourcing, awarding and managing contracts have a key role to play in finding solutions.
67. The Council’s Socially Responsible Procurement Policy 2022-27 has been refreshed and was approved by Cabinet in October 2022. The strategy now has carbon reduction as a central theme and, alongside national guidance, will take a stepped approach to ensuring that the Council understands and aims to reduce the carbon consequences of the goods and services it procures, as well as engaging with and encouraging our suppliers to understand and reduce their carbon impacts. Welsh Government guidance is seeking to require all suppliers for major procurements to have an approved climate change strategy in place and to begin to signal, and then require that tender evaluation starts to favour

low carbon purchasing alongside value for money and other social responsibility issues.

68. The Council is also identifying some of our very high carbon spend areas and conducting analysis of these to help understand issues and solutions moving forwards.
69. Meanwhile, there has been some proactive work on a range of specific procurements to pilot lower carbon outcomes in the Council. In particular a recent road resurfacing scheme contained a central specification for the contractor to use recycled, low carbon materials. Large parts of North Road have now been resurfaced with materials derived from waste processing residues and the scheme has been accredited as having low /zero carbon credentials.
70. Other schemes, such as the recent contracts to build a net zero high-school and to roll out LED lightbulbs across all of the city's street lighting, show how low carbon can and will form a central consideration in our purchasing activities moving forward.
71. Moving forward, it is clear that staff in the Authority with responsibilities for procurement will need upskilling to be able to identify and then seek to drive down the carbon impacts of the goods and services that the Council purchases. A programme of carbon literacy and circular economy training is being developed and piloted and will start to roll out over the coming year.
72. It also needs to be recognised that not all of the Council's suppliers, especially the smaller independent and local ones, will be able to move to low carbon solutions at pace and we need to consider how our purchasing activities can support the transitions needed.
73. In order to set a target for reducing emissions from our supply chain the Council will need to review reporting boundaries for priority contracts and hot spot spend areas, to estimate what emissions target needs to be in 2030 if Cardiff is to become a Carbon Neutral Council. This will require engagement with our suppliers and work on their ability to provide us with accurate data. The Council is awaiting the outputs from Welsh Government and the WLGA to inform appropriate carbon modelling methodologies and approaches to target setting.
74. There is an increasing recognition of the key role that procurement can play in tackling some of the greatest challenges facing our Communities and the Planet as a whole.
75. To achieve this it is crucial that these challenges are considered at each stage of the procurement cycle which means that all staff involved in specifying, sourcing, awarding and managing contracts have a key role to play. It is particularly important that adequate attention and time is invested in the planning and contract management stages.

ACTION PLAN REVIEW - Waste and Recycling
(Carbon Neutral City action)

76. Wales is amongst the leaders in the world on its waste and recycling record and the Council has had acknowledged success in virtually eliminating landfill and increasing recycling activities in the city.
77. The recording of associated carbon benefits is complex as waste or recycling material handed to third parties then enters separate processing procedures which attract their own footprint calculations. For that reason WG requires us to limit calculations to any waste that goes to landfill (which is usually zero in the Council's case), along with some limited transfer activities in handing waste streams over.
78. This, however, disguises some of the very positive carbon reduction activities that are associated with our Waste operations. Recycling helps reduce greenhouse gas emissions by reducing energy consumption. Using recycled materials to make new products reduces the need for virgin materials. This avoids greenhouse gas emissions that would result from extracting or mining virgin materials. In addition, manufacturing products from recycled materials typically requires less energy than making products from virgin materials.
79. Waste prevention and smart shopping are even more effective at reducing greenhouse gas emissions that result from energy consumption. When we use less or reuse products more, less energy is needed to extract, transport and process materials to manufacture products. Purchasing products made from recycled materials, such as paper, plastics, and metal, instead of virgin materials also helps to reduce energy consumption.
80. The high rate of household recycling in Wales saves over 400,000 tonnes of CO₂ per year from being released into the atmosphere and further accelerating climate change. In 2020/21 Cardiff is estimated to have avoided 36,000 tonnes of CO₂ emissions. There is a clear message, that all disposal options create an impact on the environment in terms of climate change and that the recycling of materials provides a net benefit.
81. To drive further benefits the Council's Waste Service has recently produced an improvement Action Plan in its recycling strategy which is targeting a range of behaviour change and education areas to:
- Increase Recycling Participation and Capture
 - Increase opportunities to recycle
 - Improve the material quality of recycling sent for re-processing and
 - Encourage and support the prevention, reuse and repair of materials.
82. A data modelling exercise has also been undertaken which should help us to create better local estimates of the carbon benefits arising. More detailed information on the Council's waste activities can be found in the following link: https://myrecyclingwales.org.uk/local_authorities/cardiff .

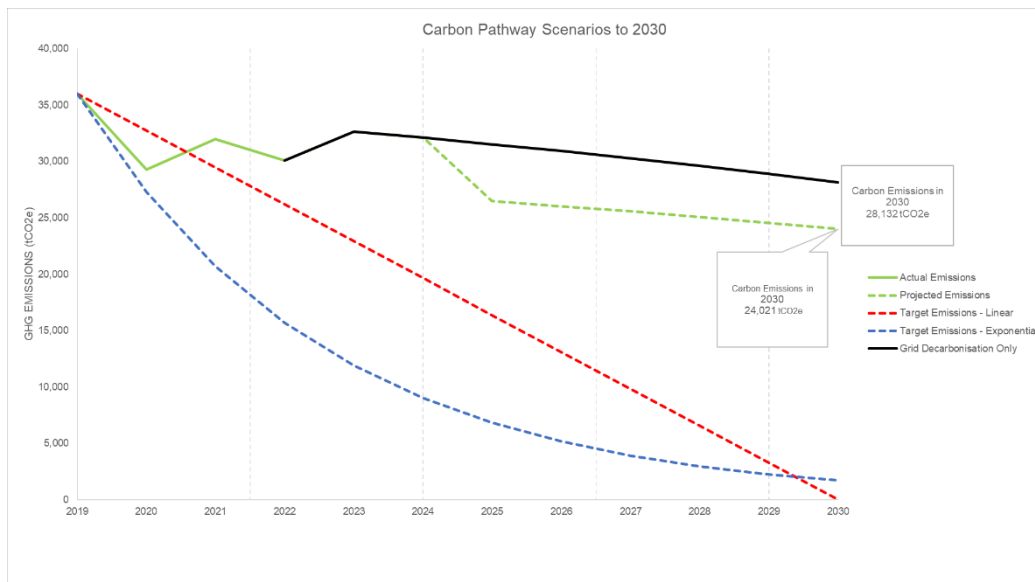
83. Linked to this, the Council has joined forces with Cardiff Metropolitan University and Celsa Steel UK to work with businesses and schools within the Council's boundary to network and develop a deeper understanding of circular economy principles and practices. To date, this Cardiff Circular Economy Network project has delivered seven workshops and engaged with 12 schools. These sessions provided educators with tools to embed circular economy principles across the curriculum, supporting the sharing of resources and the development of new lesson plans.

ACTION PLAN REVIEW – Energy
Renewable Energy Generation and Low Carbon Energy Distribution

84. It is now well established that the overall electricity demand for both the Council and the city will increase towards 2030 and beyond. Even with a huge effort to reduce electricity consumption through energy efficient lighting, appliances and electrical goods, the new demands created from electric vehicles and new heating technologies will grow much faster as the Country moves away from fossil fuels . It is critical that this growing demand is met by clean renewable energy sources and the Authority has a key role to play in achieving this locally.

Energy
(Carbon Neutral Council action)

85. The Council has installed many roof mounted Solar PV and hot water systems in the last decade and this approach needs to be fully embedded in our building retrofit projects moving forward, accommodating onsite needs as far as possible and reducing demand on the grid.
86. Moving forwards Officers are now scoping out two new renewable energy generation schemes to be delivered on Council Land and with the potential to generate to almost 25MW of clean, renewable power for the city.
87. Business cases are currently being assembled for Cabinet consideration next year. If acceptable, one of these two schemes could help to provide zero carbon power for a significant proportion of the Council's energy demands at its recycling depot, including power for our new Waste Vehicle fleet. The graph below estimates that the potential carbon impact of this single proposal in the Pathway analysis could be highly significant. There is still much work to do to develop these technical and business cases but the scheme already illustrates how linking new renewable generation directly to our operational energy demands holds the potential for step-change decarbonisation where the prevailing local opportunities are favourable.



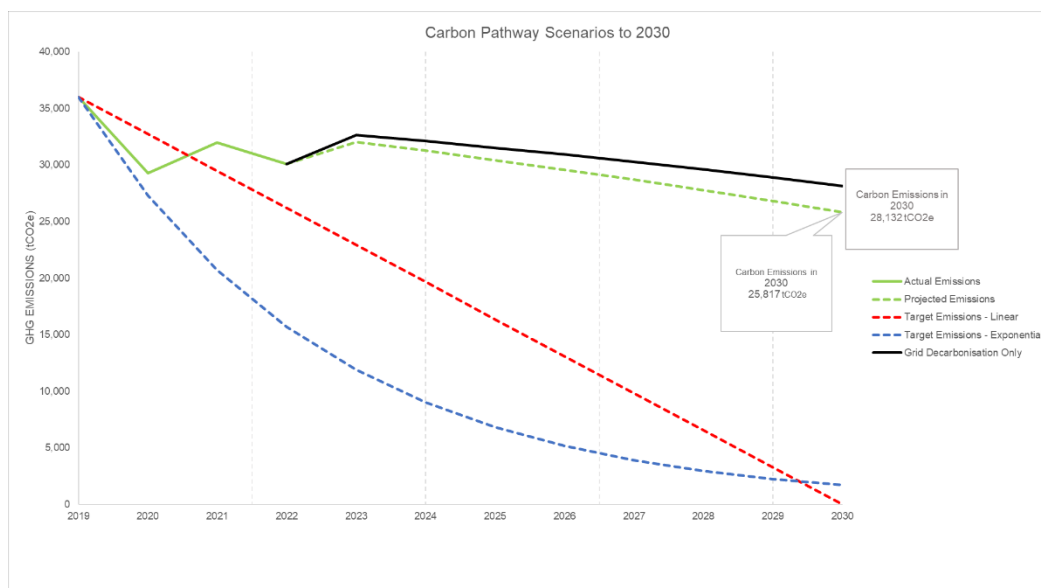
Energy (Carbon Neutral City action)

88. As a major landholder in the City the Council also has a potential role in supporting wider grid decarbonisation for the city and region and a whole. Our 8.9 MW solar farm scheme at Lamby Way has been commissioned, providing the equivalent zero carbon energy to power over 2,000 homes. The energy is currently being used, via a direct off-grid connection, to help achieve low/zero carbon operations at the City’s waste-water treatment works as well contributing to wider grid decarbonisation.
89. The Cardiff Heat Network is also now under construction with first “heat-on” dates anticipated in late 2023. Though not considered to be renewable energy the heat that will be distributed to customer buildings has a very low carbon content as it is a by-product of the separate waste processing operation much of which would otherwise go unused. Customers will see an immediate 80% average reduction in their carbon emissions compared to traditional gas heating systems and it is estimated that the project will deliver a city-wide carbon reduction of well over 9,000 tCO₂e per annum once complete. The scheme offers the additional benefit of providing heat without significantly increasing electricity demands associated with other types of low carbon heating.
90. At a significantly larger scale the Council is also supporting work at the City Region and in the Western Gateway Group of local Authorities to re-examine the case for tidal power generation in the Severn Estuary. This work is at a very early stage but has significant interest and support from regional partners in the public and academic sectors and could be a game changer for renewable energy in Wales.

ACTION PLAN REVIEW - Green Infrastructure and Adaptation to Climate Change
(Carbon Neutral Council and City action)

COED CAERDYDD

91. The One Planet Cardiff Strategy highlighted the need to increase the city's tree canopy and reshape our land management techniques to protect and enhance biodiversity. The Coed Caerdydd project is now well established as a tool to help to deliver these aspirations. Urban tree planting is known to have more immediate positive impacts on air quality and cooling than increasing canopy cover in woodland and forests and so this project is also reaching out to partner organisations in the city who are also starting to identify parts of their estates on which to host Coed Caerdydd planting. By 2024, 22 hectares will have been planted with additional trees and other planting, supporting carbon sequestration and providing additional urban shading and cooling. The final target for the Coed Caerdydd project is to plant 839 hectares though it should be noted that current funding is only secured July until 2023. A bid has been made to the Councils Shared Prosperity Fund for an additional 2 years of funding which is critical to the continuation of Coed Caerdydd. The graph below shows this impact that the delivery of the full scheme could bring to the Council's operational footprint. This measures only the activity that the project does on council owned land, though the totality of the work, which will need to extend to other land ownerships, will be larger.



Flood Defence

92. Our flood defence programme is also becoming well established and, drawing inspiration from our Greener Grangetown work, many of the City's new developments, public realm improvements and traffic calming schemes are now including Sustainable Urban Drainage design. As well as mitigating and adapting to extreme weather incidents, these schemes help to reduce the power demands otherwise placed on the sewage

system to pump and cleanse storm water. The schemes also brings enhanced biodiversity opportunities to our urban areas.

93. The Council has a statutory duty as the Lead Local Flood Authority (LLFA) to adopt a flood risk strategy and management plan. The existing strategy and plan have been in place since 2014 and 20115 respectively but a refreshed combined emerging strategy and management plan is being developed. This strategy will include community engagement and community adaptation to climate change and the resultant flood risk, from coastal, river and surface water flood events. The Council as The Suds Approval Body under its statutory duties as the LLFA is working with NRW to improve the water quality across the city and in particular within the city's 3 rivers – this will improve biodiversity as well as mitigate against flood risk.
94. Coastal flooding is one of the major risks to Cardiff from climate change. The FRAW (Flood Risk Assessment Wales) modelling has shown that the Rhymney estuary is at significant risk from fluvial and coastal flooding. The council has designed a scheme to strengthen the defences through rock-armour, sheet piling and embankment works with a 100 year design life offering protection against the 1 in 200 year flood event. The tender process began in October 2022 and construction is expected to commence by the end of March 2023.
95. The BEIS City wide emissions report referred to above captures the positive “sequestration” benefits of our green infrastructure and estimated that this was removing 4,000 tCO₂e from the city in 2020. However this is unlikely to have picked up the detail of the recent activities mentioned above.

ACTION PLAN REVIEW - Food

96. The Cardiff Food Strategy 2021-24 promotes healthy, local and low carbon food. With the appointment of a dedicated officer for food, there is now a wide range of food initiatives well into delivery that will contribute to One Planet Cardiff. Activity underway in our schools is gathering momentum, engaging with pupils, the community, and local SMEs.

Council Food (*Carbon Neutral Council action*)

97. The Council's school's food programme captures the efforts for production of food on school grounds and the provision of healthy, sustainable food choices in our schools. The Edible Schools programme has delivered 15 vegetable gardens, with a further 10 to be installed this financial year. Options for school-based food co-operatives are being explored and potential partners will be identified to develop a pilot scheme.
98. Free school meals provision to all pupils requires significant investment in both kitchen and menu provision. 18 schools have had kitchen

improvement works during the summer, increasing to 40 schools by Christmas 2022. A scope of works for appointing a consultancy to develop the new low carbon, sustainable and healthy menu has been produced. The new menu will be developed with dietetic and carbon modelling experts.

99. A pilot project for County Hall Canteen has been delayed due to internal changes within the Council and timing of getting staff back into County Hall on a hybrid working model. Work is ongoing with Facilities Management to consider options for delivery. Healthy, low carbon food choices are to be reflected in council food procurement, with initial discussions underway.

City-wide Food (Carbon Neutral City Action)

100. The Council is also engaged with a number of food projects across our Cardiff Food Network group and, in particular, is working on a pilot project to test ways in which spare and underused plots of land in Council ownership can be made available to local community groups for healthy, local, lower carbon food growing initiatives' etc.
101. The Council has also launched a major food innovation project in partnership with Monmouthshire Council and the Cardiff City Region. This £2.5m project is being run as a competition seeking innovative solutions to increase the local production and supply of healthy, low carbon and environmentally sustainable food in the region. Successful projects will help to increase the quantities of locally produced food consumed in the region and to stimulate sustainable supply chains and jobs in a food economy that is currently over-dependent on imported and processed foods.

ACTION PLAN REVIEW – Behaviour Change – engagement and partnership

102. Delivering the One Planet Cardiff vision, both for a carbon neutral Council by 2030 and for the production of a detailed “pathway” to net zero for the whole city, will require the efforts of everyone living and working in the Cardiff and officers have been tasked with developing a far reaching programme of Behaviour Change support to help facilitate this.

Council Staff Engagement (Carbon Neutral Council action)

103. At the Council’s operational level, embedding low carbon principles across the Council requires a governance structure that holds each directorate accountable for delivery of the interventions within the action plan and ensuring that future decision making has the lowest possible impact on carbon emissions. As mentioned above Procurement Officers have started to develop relevant carbon spend statistics on a Directorate level, our Estates team have recognised the need to support behaviour change in building

managers to target wasted energy use, and work has also begun to support low carbon travel choices for our staff.

104. Recognising the complex cross-cutting issues involved in this agenda officers have also now added a formal layer of governance to the One Planet Cardiff project which brings together key directorate leads, under the steerage of the Chief Executive, to discuss cross cutting issues and resolve more difficult challenges.
105. There has also been very significant progress on engagement with Schools and the youth of Cardiff who are acknowledged to hold the central interest in ensuring that we deliver a sustainable future for the city. A One Planet Schools Pledge is being developed where Schools will be invited to commit to developing their own school specific One Planet Action plan, researched and championed by pupils who will also monitor progress and keep plans on track. This initiative is also being seen as a central strand in implementing the New Curriculum in Wales, which is seeking to build more real-life experience into the teaching and learning processes.

City Wide Behaviour Change Initiatives (Carbon Neutral City action)

106. It is hoped that the One Planet Schools Pledge will also reach out and start to influence behaviour change at a wider city scale. The overall aim of the project is to encourage well informed and able learners to become ambassadors and champions for the changes that we all need to see. Their knowledge, and influence over friends and family, will be an important educational factor beyond the school environment and should stand them in good stead as they progress to more active roles in society and the economy in future years.
107. Our work with the Climate Emergency Board of public sector, academic and utility partners in the city is also looking closely at behaviour change strategies. Partners have collectively agreed to share best practice and start to align our outreach and internal staff behaviour change strategies so that the wider collective impact of our messages can be reinforced and amplified.
108. Though the above account marks good progress there is still much ground that the Council needs to cover in its Behaviour Change plans and Officers are looking at ways to better resource this. Plans are taking shape to hold a Climate Change convention event in the new year, bringing together the many organisations, groups and stakeholders in the city to discuss our challenges and common interests, and to ensure that this conversation continues and starts to identify and deliver real change.
109. Welsh Government are currently consulting on a new draft Strategy for Public Engagement and Action on Climate Change and the Council will be looking closely at this and aligning procedures wherever possible. In particular, the proposed Climate Change Convention offers an opportunity to draw from best practice and test options arising from this draft

engagement strategy and we plan to engage with the report's authors to explore options.

110. More broadly, officers will be developing some easy to understand, but compelling messages and requests to present to the wider public in the city. The Council is doing all it can to address the climate emergency but citizens, businesses and organisations in the City also need to be fully engaged in this to achieve real success.
111. Work will be needed to develop and promote a rolling list of the easiest and most impactful changes that we all need to try to achieve in our daily lives. We all already know that making sustainable travel choices, buying more responsibly to reduce waste, and taking care over domestic energy efficiency are important. But the Council needs its messages to be well researched, simple and compelling, and supported by good advice and appropriate signposting along the way. In line with current Welsh Government guidance on Climate Change Engagement, we need "*to make the right thing to do the easiest thing to do*", and the Council will be developing a partnership approach to this over the next period.

Council Pension Fund – Disinvestment away from High Carbon Activities and Fossil Fuels

112. Though not directly impacting on operational or city wide emission statistics, the Council is also keen to ensure that its financial investments are ethical and low carbon based wherever possible. In light of this, some recent changes were made to the Cardiff and Vale of Glamorgan Pension fund holdings, including the following three actions:
 - Increasing its proportional allocation of investment to the Low Equity Carbon Tracker fund and introducing a de-carbonisation overlay to a number of its Active Equity Funds
 - The potential for Disinvestment from companies representing a continuing risk who do not respond positively to engagement
 - The soon to be launched WPP Sustainable Equity Fund is expected to see an acceleration in positive investment in companies developing clean technology
113. The Joint Governance Committee of the Wales Pension Partnership has also recently approved the structure of the Sustainable Equity Sub-Fund which will further develop the sustainable credentials of investment, and the target is that this Fund will launch in 2023.

Conclusion

114. Work over the last period has kick-started a very wide range of Council led and collaborative projects to address the Climate Emergency. It has also added significantly to our understanding of the carbon consequences and impacts of our work across many complex areas.

115. The proposed Pathway analysis methodology is now maturing and shows reasonable progress but also highlights the enormous scale of the challenge that the Council faces in the coming years.
116. Despite the good progress it's clear that some things aren't happening fast enough to enable us to fully respond to the Decarbonisation and Climate Emergency agendas at the speed now required. The decarbonisation of the Gas Grid is still a major challenge and progress is much slower than the parallel work on electricity. Work to fully decarbonise buildings therefore remains difficult and costly, and the uncertainties around Government funding support for this in the public sector and in the domestic setting are undoubtedly causing problematic delays on progress. Similarly, the "Metro for the Valleys" scheme is a central opportunity in the City and Region's ability of decarbonise transport and uncertainty around funding decisions is slowing progress here too. Linked to this, global shortages of electronic components resulting from the Pandemic, and the Ukrainian crisis have impacted the price and availability of low emission vehicles and progress here is slower than had been hoped. These challenges are well known and difficult to fix but are inevitably and inextricably linked to our Climate Emergency response.
117. A range of areas has been identified where teams across the organisation can inject new focus and this will trigger a series of more detailed reports and business cases for the Council to consider in the coming months and years.
118. The financial and operational challenges associated to this were always significant but are now in sharper focus as a result of the energy and cost of living crises. This underlines that the Council can't tackle the Climate Emergency alone. Collaboration, communication, goal alignment and good monitoring across the city and beyond is essential and the Council will continue to act as a focal point for this in the next decade and beyond.

Scrutiny Consideration

119. The Environment Scrutiny committee considered this report. Any comments received will be circulated at the Cabinet meeting.

Reason for Recommendations

120. To ensure that the progress and momentum of our Climate Emergency response is recorded and to approve the amended monitoring, modelling and action planning required to continue its delivery.

Financial Implications

121. Meeting targets set out in this report will require additional capital and revenue budgets that have not been assumed in the current budget framework.

122. Whilst the reporting on emissions and updates on progress is an iterative process, priority actions outlined remain un-costed and in many cases are not included in this report.
123. This remains a similar position to that outlined in a July 2022 report of the Auditor General Wales – ‘Public Sector Readiness for Net Zero Carbon by 2030’, which found that public bodies have not fully assessed the financial implications of the 2030 collective ambition.
124. A full understanding of the financial issues, risks and deliverability of the strategy actions needs to take place as proposals are considered.
125. A number of processes, actions and the strategies across various areas referred to in the update continue to be developed or are yet to be developed. These should be prioritised at pace with any financial implications of these considered alongside other Council financial commitments and pressures to ensure the budget framework for 2023/24 and future years includes the full approved commitments for the Council in the medium to long term.
126. The update sets out a number of actions and issues to tackle. However, it is unclear which actions are to be prioritised and over which timescale to make the biggest impact on targets as well as future cost avoidance. It is also unclear as to the financial interventions which have the biggest impact in outcomes achieved per £ of investment i.e. where financial and human resources need to be prioritised to make the biggest impact with least risk.
127. Future actions included in the report developed across Directorates such as energy generation will need to be the subject of robust business cases and consider alternative options to deliver the outcomes having regard to risks and capacity and skills to deliver. Were it approved that the Council should incur such expenditure, without external grant funding, any such projects would significantly increase the Council’s currently assumed borrowing further and to be repaid over a long period of time.
128. The action plan also considers interventions such as buildings retrofit, road resurfacing measures etc. Initial pilot exercises have demonstrated that changes to alternative systems in these areas cost significantly more in current financial terms. Such strategies would again increase the Council’s borrowing requirement significantly if applied to all future planned maintenance. The cost of these pilot exercises are to be met from existing directorate budgets and the One Planet Small Schemes Capital Fund. No further costs are included in the current budget framework.
129. In respect to the Council housing stock, Welsh Government have recently consulted on introducing a new housing quality standard, which focuses on decarbonisation. The costs of meeting any such standard and the decarbonisation of the housing stock is significant and not viable for the rent payer alone to afford, particularly when rents are not controlled by the Council.

130. Without certainty of significant external cash grants for investment in the actions identified in this report, including mobility, there is a significant risk as to whether the actions are affordable or sustainable in the long term. In submitting business cases for the actions identified, these will need to demonstrate how all the all areas of the council can use existing funding in different ways, explore fully and maximise potential additional external grant funding opportunities and consider opportunities for collaboration.
131. Where data is being used to inform decision making and prioritisation, the source of that data needs to be robust, to ensure interventions and scarce resources are allocated to priority areas and requirements for sustainability reporting can be complied with.

Legal Implications

132. The report seeks to review progress with the 2021 One Planet Cardiff Strategy and Action plan, to approve the pathway methodology, and to approve refinements to the plan as set out in the body of this report. The strategy and action plan cover many proposed actions, measures and projects, as such it is not possible in the confines of this legal advice to comment on the legal implications raised by each such action, measure or project. Detailed legal advice will need to be taken on each of the proposed actions, measures and projects as the same are further developed. To the extent that any of the proposed actions, measures or projects require any changes to be made to any of the documents, which comprise the Council's Policy Framework, then such matters will be subject to decision of Council. To the extent that the action plan provides, without caveat, that specified actions will be undertaken, then the adoption of the plan and strategy will serve to create a legitimate expectation that such actions will be undertaken by the Council. The report refers to consultation undertaken. It should be noted that consultation gives rise to the legitimate expectation that the outcome of the consultation will be taken into account when developing and determining to adopt the strategy and action plan.

Equalities & Welsh Language

133. In considering this matter the decision maker must have regard to the Council's duties under the Equality Act 2010 (including specific Welsh public sector duties). Pursuant to these legal duties Councils must, in making decisions, have due regard to the need to (1) eliminate unlawful discrimination, (2) advance equality of opportunity and (3) foster good relations on the basis of protected characteristics. Protected characteristics are: (a) Age, (b) Gender reassignment(c) Sex (d) Race – including ethnic or national origin, colour or nationality, (e) Disability, (f) Pregnancy and maternity, (g) Marriage and civil partnership, (h)Sexual orientation (i)Religion or belief –including lack of belief.
134. When taking strategic decisions, the Council also has a statutory duty to have due regard to the need to reduce inequalities of outcome resulting from socio-economic disadvantage ('the Socio-Economic Duty' imposed under section 1 of the Equality Act 2010). In considering this, the Council

must take into account the statutory guidance issued by the Welsh Ministers (WG42004 A More Equal Wales The Socio-economic Duty Equality Act 2010 (gov.wales) and must be able to demonstrate how it has discharged its duty.

135. An Equalities Impact Assessment aims to identify the equalities implications of the proposed decision, including inequalities arising from socio-economic disadvantage, and due regard should be given to the outcomes of the Equalities Impact Assessment attached to this report.
136. The decision maker should be mindful of the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards.

The Well-being of Future Generations (Wales) Act 2015

137. The Well-Being of Future Generations (Wales) Act 2015 ('the Act') places a 'well-being duty' on public bodies aimed at achieving 7 national well-being goals for Wales - a Wales that is prosperous, resilient, healthier, more equal, has cohesive communities, a vibrant culture and thriving Welsh language, and is globally responsible. In discharging its duties under the Act, the Council has set and published well being objectives designed to maximise its contribution to achieving the national well being goals. The wellbeing objectives are set out in Cardiff's Corporate Plan 2020 -23.
138. When exercising its functions, the Council is required to take all reasonable steps to meet its wellbeing objectives. This means that the decision makers should consider how the proposed decision will contribute towards meeting the wellbeing objectives and must be satisfied that all reasonable steps have been taken to meet those objectives.
139. The wellbeing duty also requires the Council to act in accordance with a 'sustainable development principle'. This principle requires the Council to act in a way which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. Put simply, this means that Council decision makers must take account of the impact of their decisions on people living their lives in Wales in the future. In doing so, the Council must:
 - Look to the long term
 - Focus on prevention by understanding the root causes of problems
 - Deliver an integrated approach to achieving the 7 national well-being goals
 - Work in collaboration with others to find shared sustainable solutions
 - Involve people from all sections of the community in the decisions which affect them
140. The decision maker must be satisfied that the proposed decision accords with the principles above; and due regard must be given to the Statutory Guidance issued by the Welsh Ministers, which is accessible on line using the link below: <http://gov.wales/topics/people-and-communities/people/future-generations-act/statutory-guidance/?lang=en>

Policy and Budget Framework

141. The decision maker must be satisfied that the proposal is within the Policy and Budget Framework, if it is not then the matter must be referred to Council.

HR Implications

142. There are a number of elements within the action plan that will be further developed and will have HR implications. As these items develop there will be full consultation with Trade Unions and staff appropriate to the specific item. If there is a requirement to change any Council policies that effect staff then the corporately agreed process will be followed.

Property Implications

143. The Built Environment comprises a significant proportion of the Council's carbon footprint. The Corporate Property Strategy 2021-26 sets out the Council's approach to achieving the target of a net zero built environment by 2030. This will be supported with additional detail on the various projects and initiatives in forthcoming Annual Property Plans.
144. It remains essential to develop appropriate internal governance and allocate adequate resource to manage the carbon reduction initiatives for all streams of One Planet Cardiff. The pathway modelling methodology is an important means of establishing consistency of reporting supported by verifiable data. It will be important to ensure alignment with the methodologies and data used for Built Environment carbon modelling, and to ensure timely notification of reporting to facilitate required data validation.

RECOMMENDATIONS

Cabinet is recommended to:

- 1) Note the progress made on carbon reduction in the first year of One Planet Cardiff Action
- 2) approve the Pathway modelling methodology as a tool for onward monitoring and decision making
- 3) note and approve the refinement and progress of the One Planet Cardiff Action Plan
- 4) note and approve the intention to hold a Climate Change Convention in 2023

SENIOR RESPONSIBLE OFFICER	Andrew Gregory Director of Planning, Transport & Environment
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The following appendix is attached:

Appendix 1 - One Planet Cardiff – Action Plan Review 2022

The following background papers have been taken into account

One Planet Cardiff Strategy