

COUNCIL CARBON EMISSIONS & CLIMATE INVESTMENT 2022

1.0 EXECUTIVE SUMMARY

- 1.1 Scotland has some of the most ambitious targets and progressive legislation in terms of climate change in the world and the public sector is being promoted as playing a leading role towards achieving net zero by 2045. As with other public bodies it has been a requirement for Argyll & Bute Council to monitor, record and publish contributing factors towards climate change for the past 6 years. The most recent results from the national 'Reporting Requirements' has recently been published in April 2022 and covers the previous financial year for 2020/21.
- 1.2 Around 160 public bodies (Councils, Health Boards, Government) published data in the past year and across Scotland there was a general downward trend in carbon emissions across the board – some of it will be attributable to impact of COVID19 pandemic where certain sectors like travel and construction were less active for part of the year but other factors include the general de-carbonisation of the national grid as we transition away from fossil fuels for generation of electricity.
- 1.3 Argyll & Bute Council saw our carbon emissions generated by our business activities drop for the fourth year in a row. Our carbon footprint has reduced from 28,643 tCO₂e (tonnes of carbon dioxide equivalent) in 2019/20 to 26,619 tCO₂e in 2020/21. **This means around a 33% (third) reduction in emissions since recording commenced in 2015/16.** There are a number of factors that have contributed to this reduction such as direct interventions to make buildings more energy & heat efficient, replacing traditional lightbulbs with LED, moving to electric or hybrid vehicles and treating municipal waste in different ways. The overall national grid becoming more reliant upon renewable energy sources (over fossil fuel) has also had a material impact. This reduction over this period is in line with the national average.
- 1.4 Our Climate Change Board have overall responsibility for the 'reporting requirements' submission and continue to develop new ways to reduce the Council's Carbon Footprint. Our Council also adopted its second De-Carbonisation Plan in December 2021 to recognise the importance of setting out a plan to achieve net zero by 2045. There are also ambitious interim targets of reaching a 75% reduction by 2030 which is only 8 years away. It is recognised that whilst there may be some rapid progression to reduce emissions in early years some of the more stubborn and difficult sectors like waste, travel or heating will require whole systems changes and change in cultural behaviour to achieve them.
- 1.5 The Council in its February 2022 Budget also *allocated additional funding of £500,000, building on previous £1.1m investments, for climate change, including projects within Argyll and Bute's schools.* This report outlines some of the projects

this funding will be allocated to.

2.0 RECOMMENDATIONS

2.1 That the Policy & Resources Committee consider and agree the following:

- 2.1.1 Note the publication of the Council's 2020/21 carbon emissions report and its continued positive trend highlighting that carbon dioxide equivalent emissions have reduced by 33% in past 6 years; and,
- 2.1.2 Note the climate change projects that will be developed in 2022 onwards that are aligned to the additional £500,000 commitment that was allocated at the February 2022 Council Budget.
- 2.1.3 Agree to the inclusion of the Policy Lead with responsibility for Climate Change as a member of the Climate Change Board.

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3.0 INTRODUCTION

- 3.1 The Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Order 2015 requires the 180 public bodies classified as major players to prepare an annual "Report on Compliance with Climate Change Duties" (Schedule 2). Argyll and Bute Council is one of these organisations required to publish annual emissions since 2015. The most recent publication has been released in April 2022 for the reporting period 2020/21.
- 3.2 The Climate Change Board report progress to the Policy and Resources Committee on a regular basis. This is the first report outlining activities of the Climate Change Board to the new Council and is useful to provide a baseline snapshot of what are the key contributors to Council emissions plus also successes and areas for improvement. The carbon footprint of the Council also aligns to De-Carbonisation Plan which was adopted by the Council in 2021 which starts to provide a routemap towards net zero by 2045. It should be noted that the reporting requirements solely record the emissions of the Council as a business and do not reflect overall or regional emissions like local industry, private sector, personal travel etc. As reported elsewhere, as a region, Argyll and Bute has one of the most favourable regional carbon footprints due to large land mass, high forest cover, low number of industrial polluters and low population.
- 3.3 All members of the Climate Change Board are asked at monthly meetings if reports are to be escalated to Policy & Resources Committee so content should be varied across various departments. Certain reports such as the De-carbonisation Tracker and annual carbon emissions report (this report) will be consistent features. It is also recommended that the Policy Lead with responsibility for Climate Change is invited to be a member of the Climate Change Board to ensure a seamless link with regards to strategic leadership and operational delivery.

4.0 RECOMMENDATIONS

That the Policy & Resources Committee consider and agree the following:

- 4.1.1 Note the publication of the Council's 2020/21 carbon emissions report and its continued positive trend highlighting that carbon dioxide equivalent emissions have reduced by 33% in past 6 years; and,
- 4.1.2 Note the climate change projects that will be developed in 2022 onwards that are aligned to the additional £500,000 commitment that was allocated at the February 2022 Council Budget; and,
- 4.1.3 Agree to the inclusion of the Policy Lead with responsibility for Climate Change as a

member of the Climate Change Board.

5.0 BACKGROUND

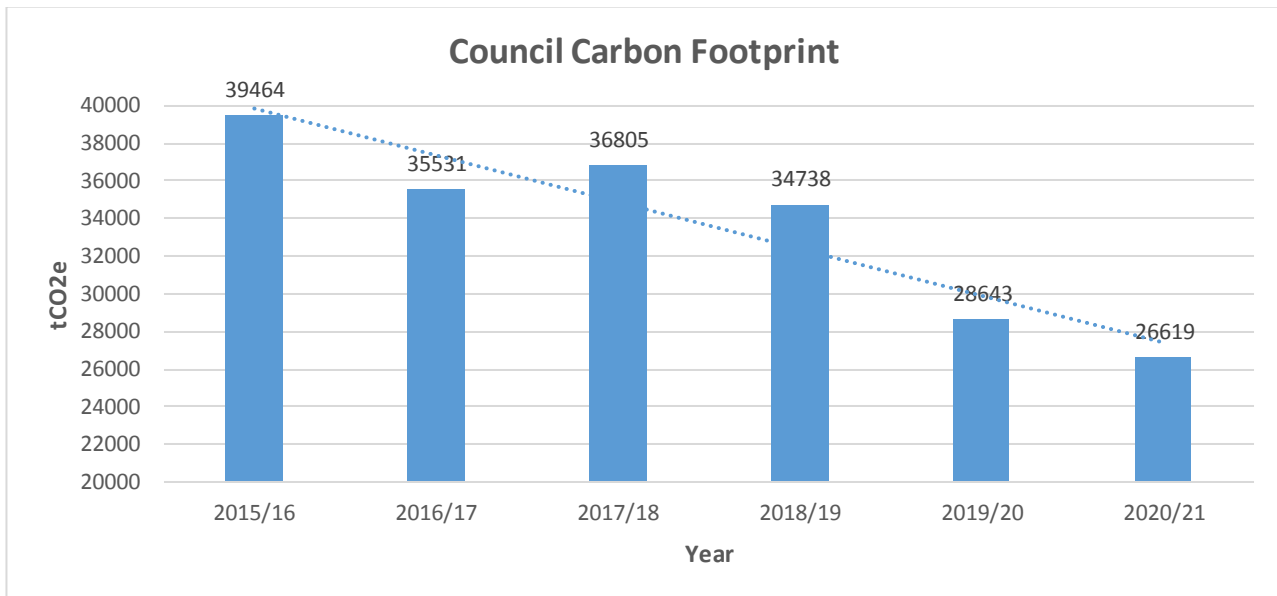
5.1 Since 2015/16 Argyll & Bute Council has published data on its Carbon Emissions annually based on a nationally agreed framework of indicators. There has been an evolution of indicators over the years but most have stayed consistent so a general trend has been able to be formed as outlined in the table below. It should be noted that not all activities produce direct greenhouse gas emissions, however for the purposes of reporting activities are given a 'tons of carbon dioxide equivalent' rating so they can be more easily compared. This is industry standard approach.

Table 1- Annual Emissions with Baseline

Reference Year	Year	Scope1	Scope2	Scope3	Total	Units	Comments
Baseline carbon footprint	2015/16	10767.7	11701.3	16995	39464	tCO2e	
Year 1 carbon footprint	2016/17	9146.4	9790.3	16593.8	35531	tCO2e	
Year 2 carbon footprint	2017/18	9437.6	7797.8	19569.4	36805	tCO2e	Municipal waste to landfill is the Council's largest contributor to its carbon footprint; despite a reduction in municipal waste to landfill, the significant increase in the relevant carbon emissions factor has caused an upturn in scope 3 emissions.
Year 3 carbon footprint	2018/19	8937.4	5862.49	19938.13	<u>34,738</u>	tCO2e	This represents a 12% reduction in 3 years
Year 4 Carbon Footprint	2019/20	8849	4687	15107	<u>28643</u>	tCO2e	
Year 5 Carbon Footprint	2020/21	8611	4178	13830	<u>26619</u>	tCO2e	

5.2 There is a positive (downward) trend across the Council as highlighted below.

Graph 1 – Annual Carbon Emissions



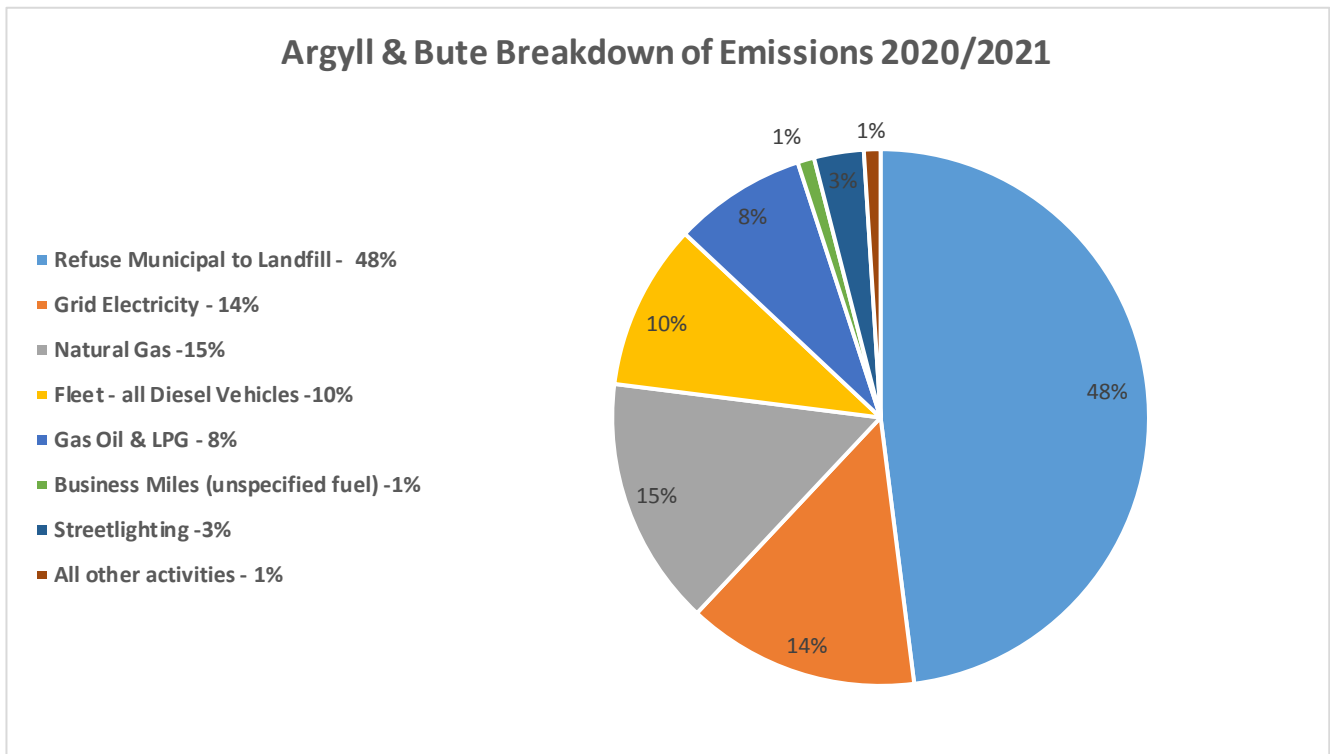
5.3 All activity of the Council is monitored so it is important to understand the breakdown of emission sources. All departments have a responsibility and role to play in monitoring and reducing carbon emissions.

Table 2 - Breakdown of emission sources

Emission Source	Emissions (tCO ₂ e)	Comments
Refuse Municipal to Landfill	12,798	~48% of total carbon footprint
Grid Electricity	3,655	~14% of total carbon footprint
Natural Gas	4,042	~15% of total carbon footprint – mainly used as heating source in buildings
Fleet – all Diesel Vehicles	2,554	~10% of total carbon footprint – bin lorries, cars, vans
Gas Oil & LPG	2016	~8% of total carbon footprint – mainly for building heating
Business Miles (unspecified fuel)	274	~1% of total carbon footprint
Streetlighting	882	~3% of total carbon footprint

All other activities	399	~1 % of total carbon footprint includes collections for recycling, water treatment, tyre processing, glass / WEE recycling
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Graph 2 – Breakdown of emission sources



5.4 The relative sources of emissions by activity have remained fairly consistent for several years with processing municipal waste being responsible for around half of the entire emissions. Whilst overall all emission sources have reduced the proportions have remained relatively consistent. Future projects like Biodegradable Municipal Waste (BMW) Landfill Ban, switching to greener ways heat and power buildings and fleet replacement with low emissions vehicles will obviously have a significant impact on overall carbon footprint.

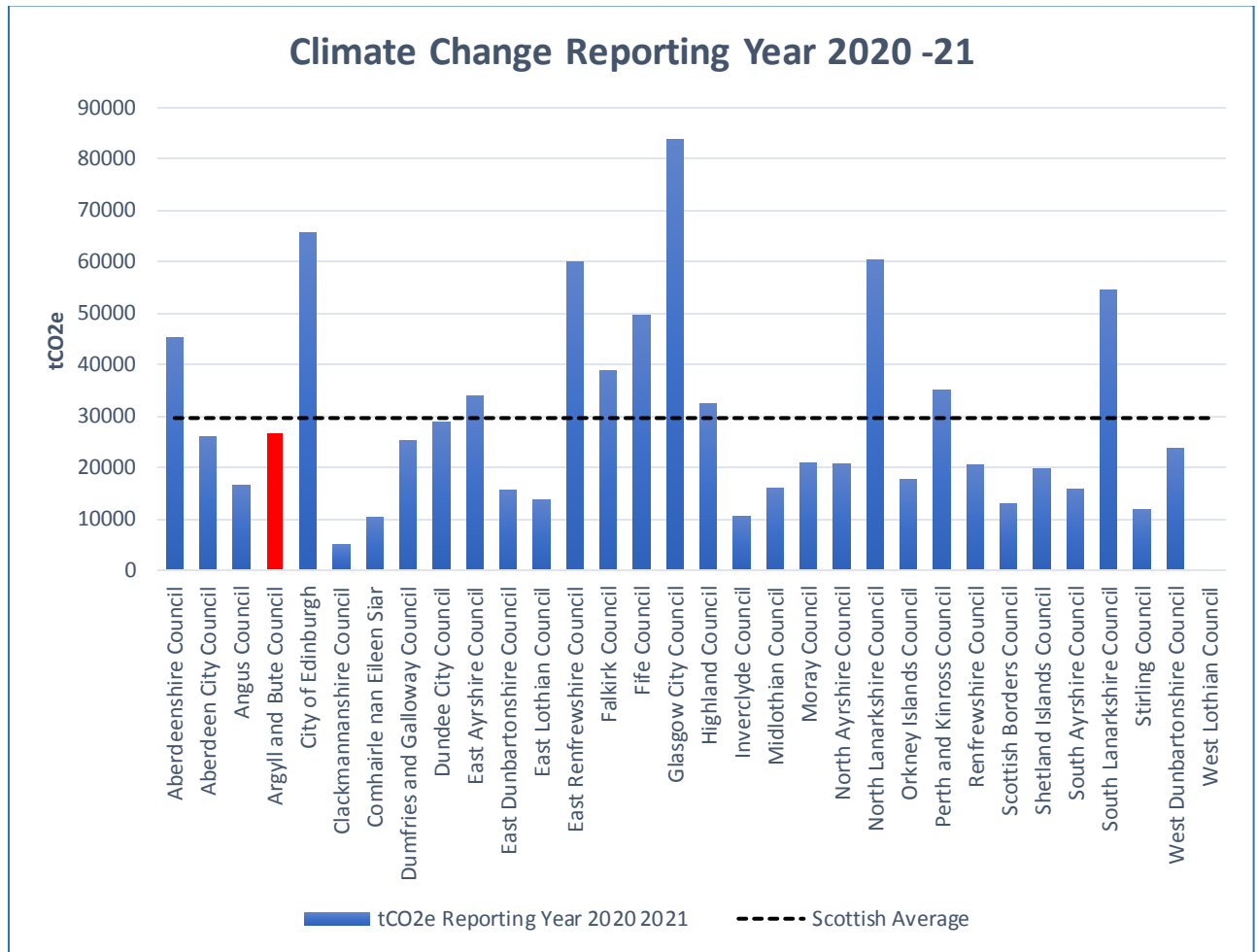
5.5 The Council have also invested in generating own sources of renewable heat and energy as outlined this year below:-

Table 3 - Generation, consumption and export of renewable energy

TECHNOLOGY	Renewable Electricity		Renewable Heat	
	Total consumed by the organisation (kWh)	Total exported (kWh)	Total consumed by the organisation (kWh)	Total exported (kWh)

Solar PV	882843	0		
Wind	15000	135000		
Biomass			4678800	0
Air Source Heat Pump			130000	0

Graph 3 – Benchmarking of Council Carbon Emissions



5.6 The graph above highlights Argyll and Bute Council’s carbon emissions in relation to other local authorities who have published their 2020/21 data at this point. It is very difficult to make a direct comparison as population, physical size, internal processes (particularly waste treatment) and geographic factors all have a material impact on overall emissions.

6.0 Climate Change Projects 2022

6.1 The Council Budget which was approved in February 2022 included a provision for:-

Additional funding of £0.5m, building on previous £1.1m investments, for climate change, including projects within Argyll and Bute’s schools.

6.2 In light of this additional investment and following discussions with the Climate Change Board it is proposed the following projects are pursued to further enhance our position:-

1. Non Domestic Energy Efficiency Framework (NDEEF)2. - £350,000

This is the funding framework that has been used in previous years to invest £1.5m of new greener more efficient property projects through energy transition and sustainable practices. Currently 18 unfunded projects at initial case selection. Projects will be developed and investment business cases taken to point of commitment in 2022/23. Due to most sites being on Education estate most will await school holidays for actual installation (some of them in 2023/24) to deliver. Contracts would be signed / committed in 2022/23 year. A list of projects that will be considered for Business Case will be:-

PLEASE NOTE NOT ALL OF THESE PROJECTS WILL BE ABLE TO PROCEED WITH THIS BUDGET & ALL WILL BE SUBJECT TO BUSINESS CASE. THIS IS SCOPING LIST THAT WILL BE REFINED DEPENDING ON THE BUSINESS CASE ANALYSIS

SITE	CLIMATE CHANGE / ENERGY EFFICIENT TECHNOLOGY
Carradale Primary School	LED Lighting, Solar PV, BMS Optimisation, Heating Optimisation
Hermitage Academy	LED Lighting, BMS Optimisation, Heating Optimisation
Lochgilphead Joint Campus	LED Lighting, BMS Optimisation, Heating Optimisation
Oban High School	LED Lighting, Solar PV, BMS Optimisation, Heating Optimisation
Dunoon Grammar School	LED Lighting, BMS Optimisation, Heating Optimisation
Rothesay Joint Campus	LED Lighting, BMS Optimisation, Heating Optimisation
Cardross Primary School	LED Lighting, Solar PV, New Boiler System, BMS Optimisation
Lismore Primary School	LED Lighting, ASHP, BMS Optimisation
Kirn Primary School	LED Lighting, Solar PV, BMS Optimisation, Heating Optimisation
Oban Joint Primary Campus	LED Lighting, BMS Optimisation, Heating Optimisation
Campbeltown Grammar School	LED Lighting, Solar PV, BMS Optimisation, Heating Optimisation
Tighnabruaich Primary School	LED Lighting, ASHP, BMS Optimisation
Port Ellen Primary School	LED Lighting, ASHP, BMS Optimisation
Lorn Resource Centre	ASHP, BMS Optimisation
Easdale Primary School	ASHP, BMS Optimisation
Keills Primary School	LED Lighting, ASHP, BMS Optimisation
Dalmally Primary School	LED Lighting, ASHP, BMS Optimisation

LED- light emitting diode (energy efficient lighting)
ASHP - Air Source Heat Pump (low carbon heating)
BMS - Building management system

2. Evidence based routemap to net zero - £50,000 consultancy support

Requirement to comply with the Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020

- New legislation that comes into effect in late 2022 which requires specific and scientific routemapping towards reaching net zero targets and model emissions based on activity. This will be for waste, roads, commercial services, airports etc
- Routemaps to Netzero require alignment to Council spending plans and need to be submitted in Nov 2022
- £50,000 for consultancy support to deliver this (will be a cost pressure otherwise). Output will be compliant and evidence based routemap to net zero for the Council.

To be taken forward in partnership with HIE, Western Isles Council & Hub North.

3. Local Heat and Energy Efficiency Strategy (LHEES) - £50,000 consultancy support

The Local Heat and Energy Efficiency Strategies (Scotland) Order was developed in partnership with COSLA and laid in the Scottish Parliament on 11 March 2022. It places a duty on local authorities to produce Strategies and Delivery Plans on a 5 year cycle, with the first iteration due to be published by the end of 2023. In support of this duty, the Scottish Government is providing £2.4m of annual revenue funding, ABC share £75,000, confirmed at the end of May 2022. This is to allow each local authority to recruit 1 FTE post to focus of coordination of LHEES, with a further £25,000 per council per annum to procure or internally resource technically support. Officers will bring an update on progress in due course. If it is considered after analysis this funding is not required then the £50,000 will be retained for other activities outlined in this paper.

4. Regional support of Climate Action Project Manager within Community Planning Partnership (CPP) - £50,000 of part funded post

The [Argyll and Bute Community Planning Partnership](#) (CPP) and the [Adaptation Scotland programme](#) has identified a clear need for an initiative for Argyll and Bute to make a thorough and strategic approach for action to combat Climate Change. This is a regional approach to address climate issues – not solely on Council related business. This requires a high degree of partnership and joint working from variety of stakeholders across the public, private and third sector to succeed as 1 grouping in isolation cannot address the cause and effect of climate change.

The CPP Management Committee has appointed a sub group to review and set actions in partnership relating to climate change and one of their principle

recommendations is to appoint a jointly funded Climate Action Project Manager post that will act in the interest of all CPP partners. Some partners such as NHS Highland have already committed funding to the creation of this new post which initially will be temporary for 3 years. The main activities of this new post will be to set up and a new regional Argyll and Bute Climate Action plan, a collaborative stakeholder approach to mitigating against and adapting to climate change with a strong focus on community involvement.

The proposal is allocate £50,000 of funding from this budget to act as the Council's contribution to this new CPP post.

7.0 Conclusions

7.1 It is a requirement to publish annual carbon emissions for the Scottish Government. This report highlights our overall emissions for most recent period 2020/21 and outlines that changes to this process will be forthcoming in future months due to change in The Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020. It also seeks to invite the Policy Lead with responsibility for Climate Change to be a member of the Climate Change Board to ensure a seamless link with regards to strategic leadership and operational delivery.

8. IMPLICATIONS

8.1 Policy – underpins commitment to addressing Climate Change.

8.2 Financial – Paper reports on downward trend of emissions and can be linked to greater efficiency of ongoing utility costs. Proposed expenditure of allocated climate change funding from 2022 Budget.

8.3 Legal – Meeting requirements of climate change Scotland act.

8.4 HR – None

8.5 Fairer Scotland Duty

8.5.1 Equalities – Protected characteristics – None

8.5.2 Socio economic Duty – None

8.5.3 Islands – None

8.6 Climate change – Direct link confirming downward trend in emissions and proposed future projects that will address climate change.

8.7 Risk – Not addressing impacts or causes of climate change can lead to increased cost or censure if targets are not met.

8.8 Customer Service – None.

Douglas Hendry, Executive Director with responsibility for Commercial Services

Councillor Ross Moreland – Policy Lead Climate Change & Environment

14th July 2022

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