

# Dundee's Climate Emergency Response

## Councillor Mark Flynn





# Climate Commitments

- Climate emergency declared in June 2019
- Target of net-zero GHG by 2045 or sooner



# Dundee Climate Action Plan

## DUNDEE CLIMATE ACTION PLAN

- Co-design process with over 50 public, private and community organisations.
- Informed by a Baseline Emissions Inventory, Climate Risk & Vulnerability Assessment and statutory Strategic Environmental Assessment.
- Approved at Policy & Resources Committee 18 Nov 2019
- Launched 4<sup>th</sup> Dec 2019





# Strategic Themes

**Energy**



**Transport**

**Waste**



**Resilience**

# Energy

**Objective:** Reduce the consumption of energy, promote energy efficiency and increase the proportion of power and heat from low and zero carbon technologies.



# Domestic Energy Efficiency

- 12,500 Council houses
- Fabric first approach to meet EESSH – the Energy Efficiency Standard for Social Housing
- 5,000 homes now have external wall insulation fitted, reducing carbon emissions
- £47m EWI investment
- Installation of photovoltaic panels installed on multi-story developments
- Use of HEEPS:ABS to support privately owned dwellings





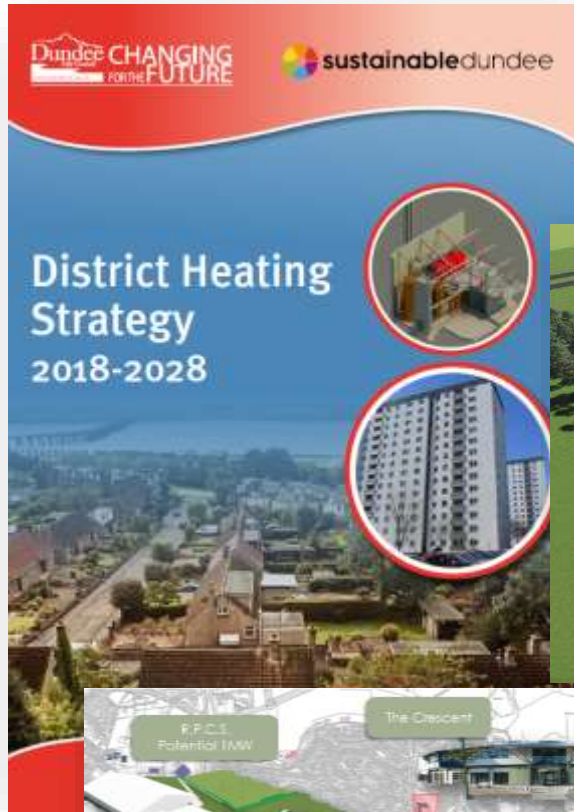
# Public Buildings and Street Lighting

## Non-Domestic - Retrofit

- Energy Performance Contracting – Phase 1: £1.7m investment in 8 properties (7.5yr payback).
- Measures include: LED Lighting, more efficient hardware/software (motors, boiler burners, control of pumps), Combined Heat and Power, insulation, solar PV.
- Contractor has to guarantee the energy savings with DCC monitoring and measuring the energy consumption which an independent 3rd party expert verifies.
- Will achieve savings of at least £222,000 per annum and a further 1,000 tonnes of CO<sub>2</sub>.
- 3<sup>rd</sup> phase underway with long term plan to include more than 100 Council properties.



# Renewables and Decarbonisation



- Strategy developed that sets out long-term vision to support the city's growth and transition to a low carbon economy using decentralised energy.



- Low Carbon District Energy Hub at Regional Performance Centre for Sport (RPC Dundee).
- £3m LCITP funding awarded + £3m capital investment.
- LZCT's combines heat pumps, gas CHP, solar thermal, PV and large thermal stores.
- Capable of generating 100% of its electrical demand and save >536 tCO<sub>2</sub> per annum.
- Catalyst project with future capacity to feed adjacent housing.



- Dighty Corridor network: preparing Investment Ready Business Case to link RPC to social housing and non-domestic properties.





# Transport

**Objective:** Encourage active travel through walking, cycling and public transport and deploy sustainable alternatives to decarbonise transport.



# Active Travel

- Cycling Strategy
- 150 e-bikes to hire Embark Dundee
- Active Travel Hub – Waterfront
- More pedestrian and 20mph zones
- Low Emission Zone





# Electric Vehicle commitment

Dundee City Council fleet of over 100 EVs being the largest of any UK local authority.

3 rapid charging hubs each with 6 x 50kW and 4 x 22kW chargers.

3 EV charging hubs being built on the top of the 3 city centre MSCP each with 20 x 7kW charge points, battery storage and dynamic load management.





# Low Carbon Transport



- Michelin Scotland Innovation Parc (MSIP) integrated energy park deploying hydrogen fuel buses, fleet vehicles and hydrogen refuelling infrastructure with energy being derived from renewable technologies.
- Advance commercialisation of hydrogen fuel cell buses through large-scale deployment of vehicles and infrastructure.
- 12 new hydrogen buses would be operational in Dundee as part of the JIVE project (Joint Initiative for Hydrogen vehicles across Europe).
- Creation of a hydrogen refuelling station utilising green on-site energy generation for electrolyser.





# Resilience

**Objective:** Ensure our communities, green networks and infrastructure are adaptable to a changing climate and reduce the risks and vulnerability to unavoidable impacts.



# Resilience - examples

- Biodiversity Strategy published Jan 2020:
  - Proposal for naturalised grass areas in 27 parks and greenspaces across the city. Consultation running until December.
- Eden Project Scotland – feasibility stage
- Dune restoration works
- Broughty Ferry Flood Protection Scheme
- Green Health Partnership formed

## Others:

- New Food Growing Strategy
- Eco Schools and Climate Ready classrooms
- Support to businesses and the tourist industry in Dundee on resilience and climate change







# Waste

**Objective:** Manage waste sustainably by reducing, reusing, recycling and recovering waste to improve resource efficiency whilst working towards a circular economy.



# The Challenge

## Scottish Government Policy Targets

1. End landfilling of biodegradable municipal waste by 2025, reduce the percentage of all waste sent to landfill to 5% by 2025 and recycle 70% of all waste by 2025.
2. Reduce food waste by 33% from the 2013 baseline by 2025.
3. Establish a more circular economy, where goods and materials are kept in use for longer.





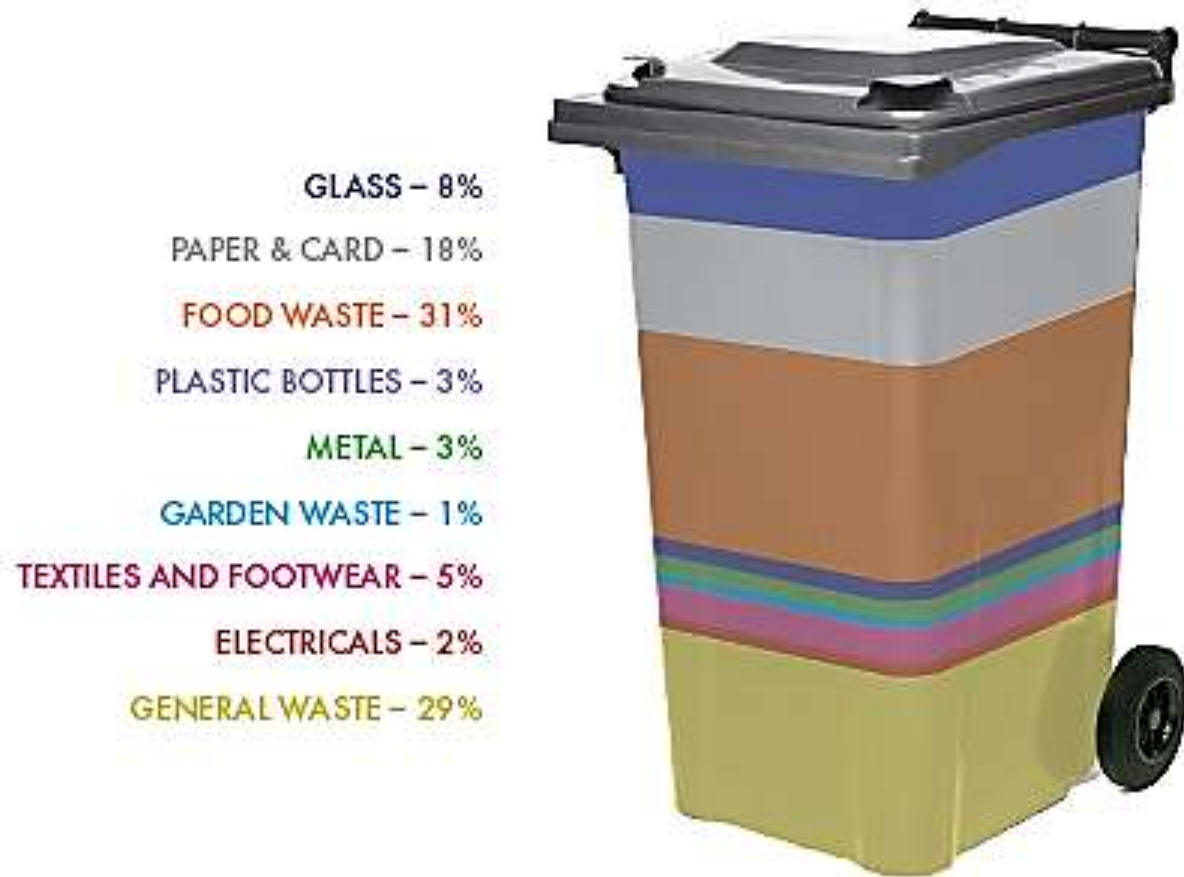
# Recycling

- Current recycling rate of 35%, requires doubling by 2025
- Waste and Recycling Strategy Action Plan launched last year
- Comprehensive programme of waste education and community engagement including doorstep visits to 20,000 households
- Supporting Eco-Schools activities
- Internal waste awareness campaigns





# Food Waste

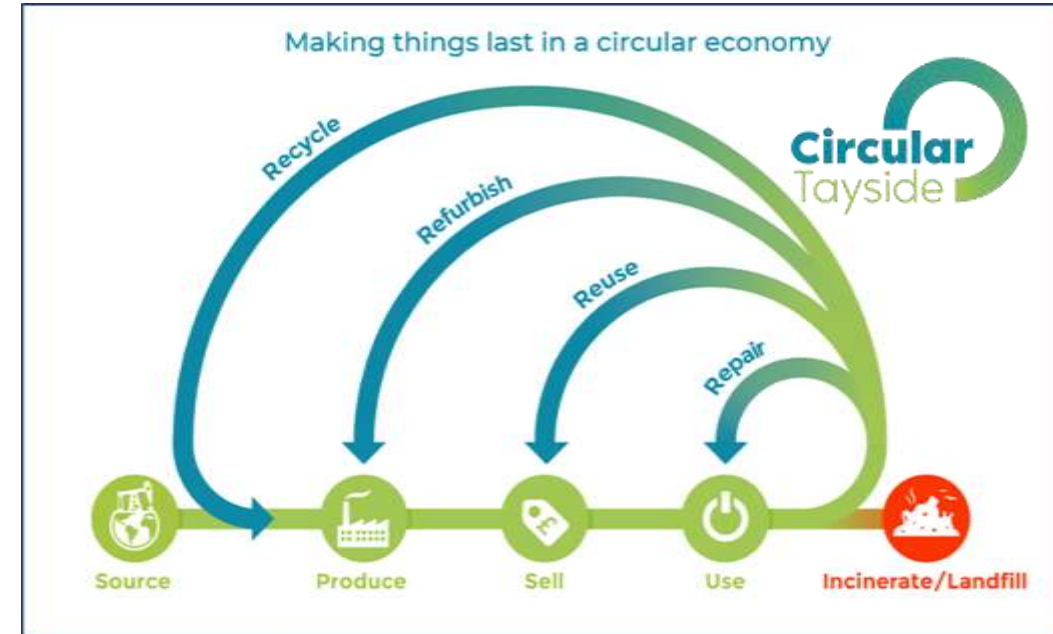


Compositional analysis of typical general waste bin in Dundee



# Circular Economy

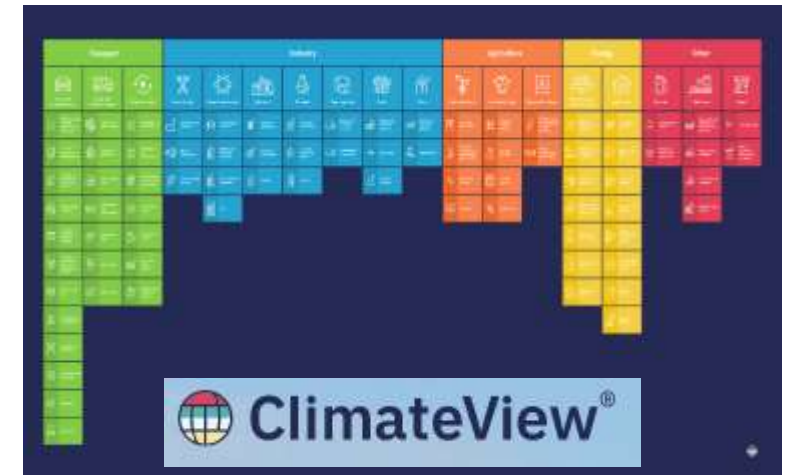
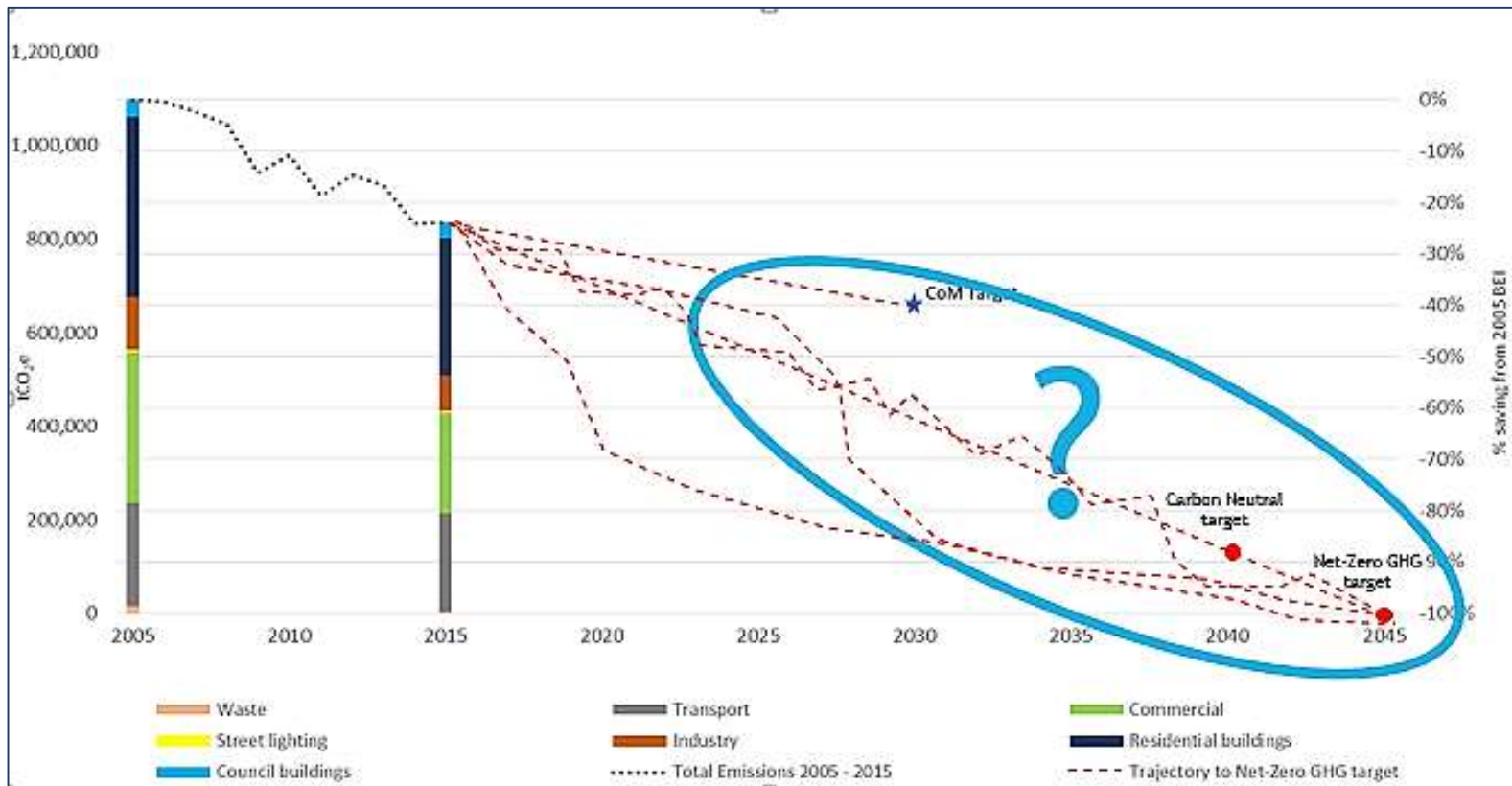
- Support the Scottish Governments Deposit Return Scheme
- Reducing single use plastics – plastic pledge
- Developing and implementing circular economy projects and education identified by the Circular Tayside initiative.
- Whole Life Costing approach to developments to ensure resilient, low carbon buildings with minimal waste
- Circular strategy
- Furniture Reuse Hub





# How to get to Net-Zero?

- Over 70% of Dundee emissions come from the energy for heating and lighting
- Council properties only contribute 4% of total energy related emissions which is why a city-wide approach is essential.
- Current planned projects will not mitigate to the extent required to reach net zero.
- The path to net-zero will not be a linear one.





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