Deal Town Council

Update on the councils target to reach Net Zero by 2025

Matthew Morris | STEM Sustainability | Apr 2024

Scope: 2023/24

- **Meet with Council**
- **Review materials provided**
- **Review decarbonisation:**
  - **Inter-year**
  - **Against baseline**
  - **Progress toward net zero**
- **Provide opinion**
- **Make recommendations**
- **Present at April '24 AGM**

Method: 2023/24

- **Documents provided for 2023/24 review:**

Item	Item Title	Type	Description
1	KALC_Scope 1 to 3 Carbon Footprint Tool_final DTC April 2024	Excel	Carbon footprint input data and results
2	23 - 24 Climate action update of works to date	PDF	Decarbonisation action plans (review of 22/23 and actions for 23/24)
3	0424 Carbon emission checklist council decisions	Word	Table of decision items with 16 links to agendas and including results of sustainabilty checklists
4	2023 paper management review	PDF	Review of paper consumption and reduction activities
5	2024 onwards climate action plan	PDF	Climate action plan summary for 2024 and beyond
6	120424 SSE DTC green electricity certificate	PDF	REGO certificate
7	120424 SSE DTC green gas certificate	PDF	REGO certificate
8	230424 Journey to net Zero data and graph 2024_UPDATED	PDF	Updated document post review meeting #1. Table showing summary of all DTC footprints; Graph showing CO2e results and trajectory
9	Attachment A - EPC follow report April 2023 (Updated April 2024)	Word	Summary of activity taken in response to EPC receommendation report
10	Deal Town Council Environmental Policy 2024	PDF	Wider environmental policy
11	Emissions Baseline 2024_ORIGINAL	PDF	Carbon footprint history (replaced by Item 8)
12	Journey to Net Zero by 2025 (excluding DTC offsetting)_ORIGINAL	PDF	Carbon reduction graph and trajectory (replaced by Item 8)
13	July 2023 climate impact criteria grant applications	PDF	Grant application form including sustainability criteria
14	new project proposal template April 2024	Word	Project proposal template including sustainability criteria
15	October 2023 Action on Litter project	PDF	Results from project (wider environmental policy)
16	October 2023 Declaration of Ecological Emergency	PDF	Declaration document
17	Water Harvesting project update	PDF	Results from project (climate action plan)
18	Climate Emergency web page	Website	https://www.deal.gov.uk/Climate_Emergency_35122.aspx

- **Review meeting #1:**
  - **Incl. review of recommendations from 2022/23 report**
- **Review meeting #2:**
  - **Q&A, feedback and clarifications and feedback pre-AGM**
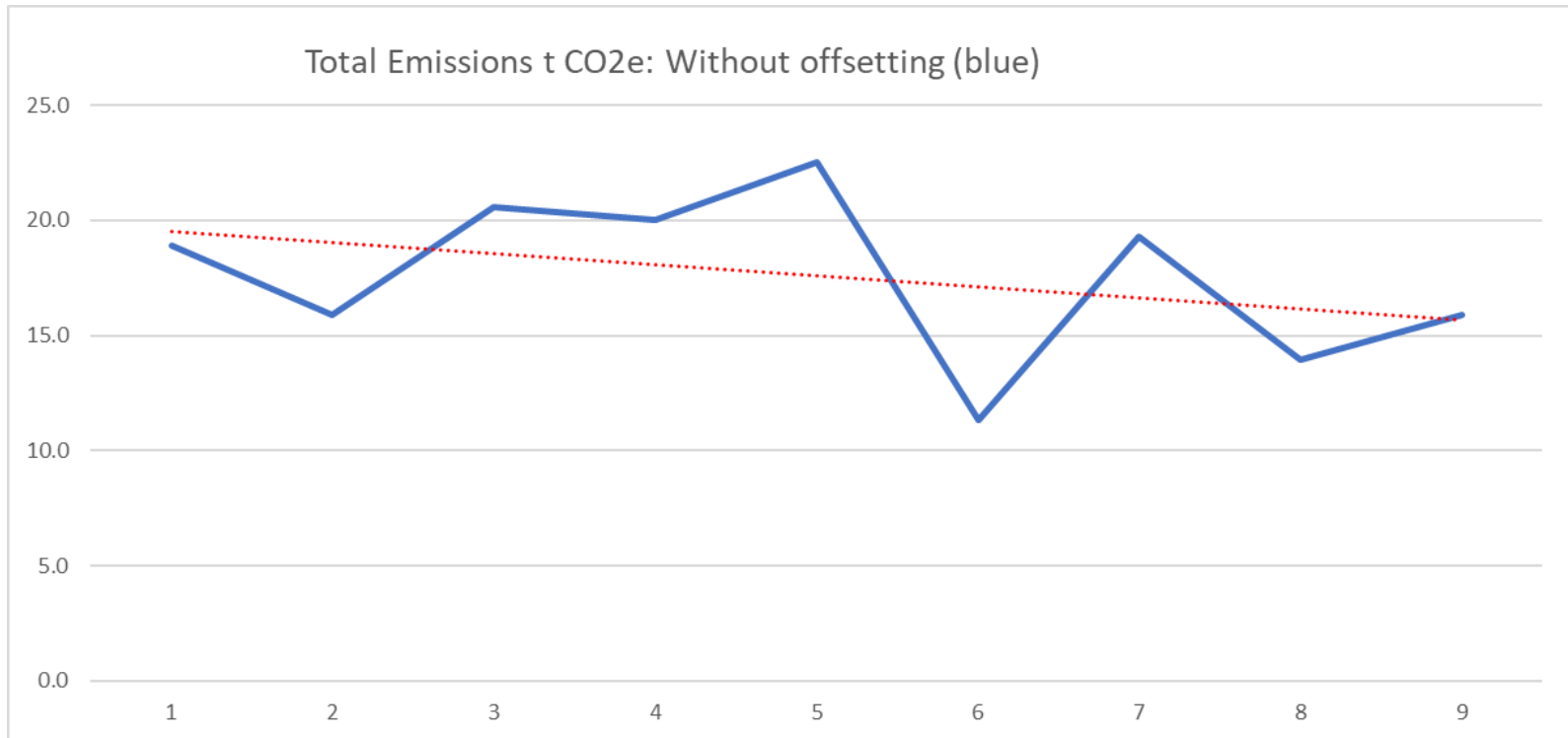
Review Meeting #1

- **Review meeting #1:**
- DTC officers presented updates on:
  - Carbon footprint
  - Projects / application of sustainability checklist
  - Offsetting
  - The documents provided for this review
- **Recommendations from 2022/23 report were checked:**
  - New actions were created for the 2023/24 review (all completed prior to AGM)

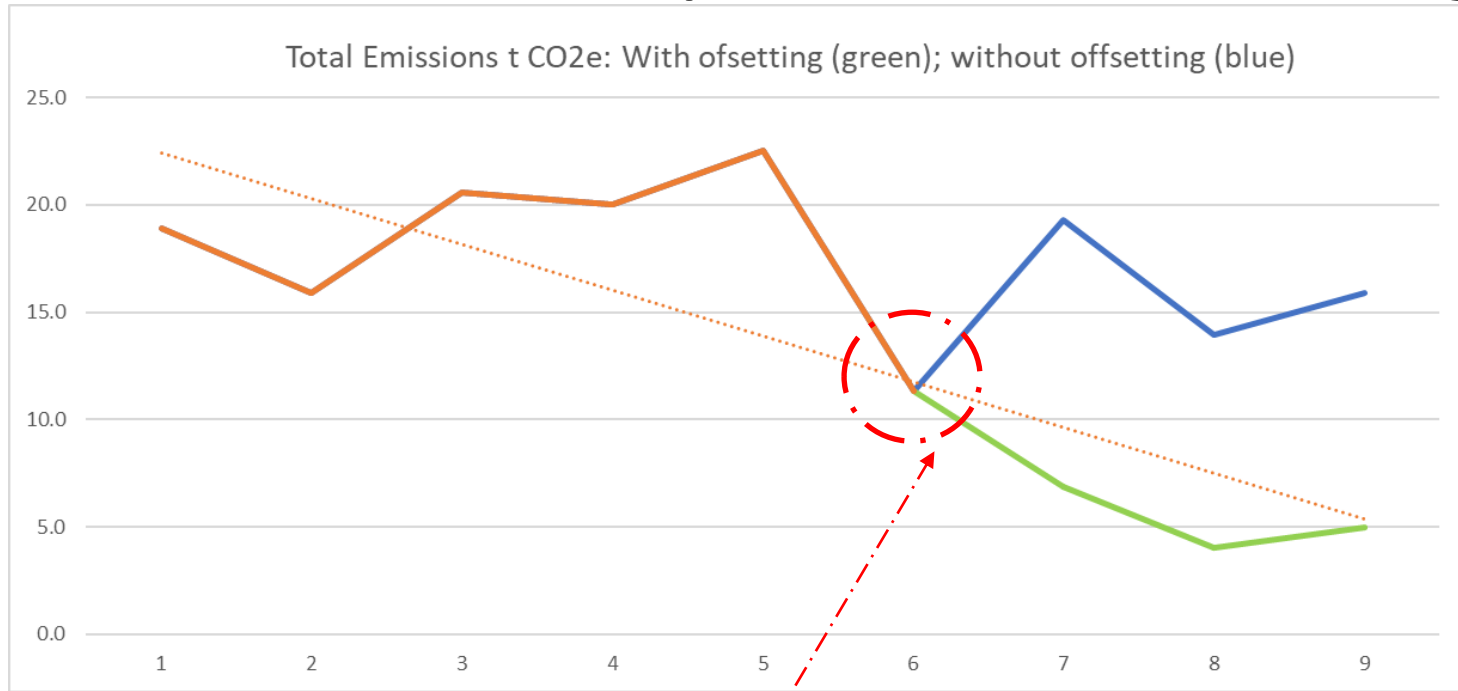| Item	Action	Status
1	Create commentary for carbon footprint	Completed - updated document provided
2	Update footprint with latest GHG conversion factors	Completed - updated document provided
3	Use of REGO-backed gas and electricity & impact on footprint	Completed - updated document provided
4	Journey to Net Zero graph to be updated and re-provided	Completed - updated document provided
5	Budget for 24/25 decarbonisation	Information on budgets provided
6	Carbon checklist has hyperlinks to agenda	Explanation on use of checklist provided
7	Paper saving evidence and data	Document provided
8	Review of Scope 3 data	Information only - keep under review
9	Scope 3 assessment of the 15 categories	Information only - keep under review
10	Latest EPC	Information on EPC status provided
11	Grants – use of climate checklist	Information provided on use of checklist
12	Public access to carbon / climate emergency work	Website information already available for review

2023/24: Carbon footprint (w/o offsetting)

- Total footprint: 15.9 tCO_2e
  - Slightly above 22/23 (+1.9 t CO_2e)
  - Trajectory is downward (reducing)
- Scopes Vs 22/23:
  - Scope 1: -26%
  - Scope 2: -63%
  - Scope 3: +92%

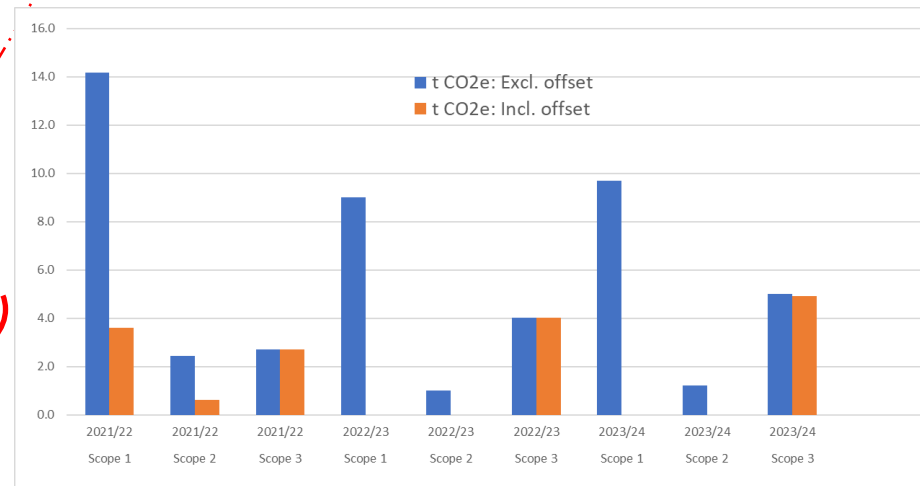Total Emissions t CO2e: Without offsetting (blue)

2023/24: Carbon footprint (with offsetting)

- Offsetting now applied to last 3 footprints:
  - DTC purchases 100% REGO-backed elec & RGGO-backed gas
  - These emissions can be reported as zero
- *PLUS* new water offset for 23/24:
  - Generated via 10,000 litre rainwater harvesting project at allotments
- **Footprint *with* offsetting:**
  - **23/24 Vs baseline: -74%**

- **NOTE**: DTC reporting **both** *location-* and *market-based (RGGO/RGGO)* footprints for energy:
  - Best practice following GHG Protocol guidance
  - DTC continues to implement decarbonisation activities
  - Underpinned by climate action plan (with budget and governance)
- DTC has moved into 'residual emissions' territory:
  - 26% of baseline remains
  - Footprint was modest to start with, and today even smaller
  - DTC is approaching a 'net zero' position

2023/24: Carbon footprint (with offsetting)

Total Emissions t CO2e: With ofsetting (green); without offsetting (blue)

t CO2e	15/16 (baseline)	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
Scope 1	13.1	10.6	14.3	15.0	15.8	7.7	14.2	9.0	9.7
Scope 2	3.2	3.1	3.6	2.2	3.6	2.1	2.4	1.0	1.2
Scope 3	2.6	2.2	2.7	2.8	3.1	1.5	2.7	4.0	5.0
Total excl. offset	18.9	15.9	20.6	20.0	22.5	11.3	19.3	14.0	15.9
Vs baseline		-16%	9%	6%	19%	-40%	2%	-26%	-16%
Gas offset							10.7	9.0	9.6
Elec offset							1.8	0.9	1.2
Water offset							0.0	0.0	0.1
t CO2e	15/16 (baseline)	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
Total inc. offset	18.9	15.9	20.6	20	22.5	11.3	6.9	4.0	5.0
Vs baseline		-16%	9%	6%	19%	-40%	-64%	-79%	-74%

2023/24: Input Data Vs 2022/23

- **Gas**:
  - Modest increase
  - Seasonality & longer hours
- **Elec**:
  - Increase (due to use of BEV)
- **Transport**:
  - Net increase in mileage
  - But +Ve shift away from fossil fuels towards hybrid & EV
- **Water**:
  - Significant reduction
- **Additions to footprint:**
  - Waste
  - Use of hybrid & EVs
- **Additions to reporting process:**
  - REGO/RGGO offsets
  - Water offset

Footprint Element	2022/23 Input Data	2023/24 Input Data	% Change
Heating Oil	-	-	
Liquid Propane Gas (LPG)	-	-	
Gas	49,096	52,533	6.5%
Petrol (inc. fuel for tools)	-	-	
Diesel	-	-	
Red Diesel	-	-	
Electricity	4,466	5,675	21.3%
Staff Commuting: Petrol/diesel car	3,955	5,940	33.4%
Staff Commuting: Hybrid		2,500	100.0%
Staff Commuting: Plug-in Hybrid			
Staff Commuting: Electric Vehicle		160	100.0%
Water Supply	1,122	480	-57.2%
Waste: Materials separated for recycling		936	100.0%
Waste: Organic (food and drink waste)		52	100.0%
Waste: Organic (green waste)			
Business mileage: Councillors petrol/diesel car	545	310	-43.1%
Business mileage: Councillors Hybrid			
Business mileage: Councillors Plug-in Hybrid	1,412	500	-64.6%
Business mileage: Councillors Electric Vehicle		602	100.0%
Business mileage: Council staff petrol/diesel car	95	82	-13.7%
Business mileage: Council staff Hybrid		20	100.0%
Business mileage: Council staff Plug-in Hybrid	200	855	76.6%
Business mileage: Council staff Electric Vehicle		596	100.0%
Transport related emissions			36.1%

2023/24: Input Data Vs 2022/23

- **Summary:**
  - 2023/24 slightly higher than 2022/23 – 3 main causes:
    - Increased use of Town Hall (response to Deal Town Plan feedback)
    - Changes to staff profile: Increased commuting distances
    - Waste added to Scope 3
- **Observations:**
  - DTC continues to use grid gas for heating and hot water…
    - But this is now offset using RGGOs
    - The heating system is modern, has been modified and improved
    - EPC recommendations have been completed (insulation, glazing, controls)
  - DTC has done well considering the nature of the building, its listed status, and its use
  - Alternative options are possible…
  - But for the time being the correct action has been taken
- **Recommendations:**
  - Ensure 2024/25 footprint is like-for-like with the last four footprints
  - Continue capture of water offset data
  - Continue reducing use of petrol/diesel for business mileage

Net Zero 2025: Overall Progress

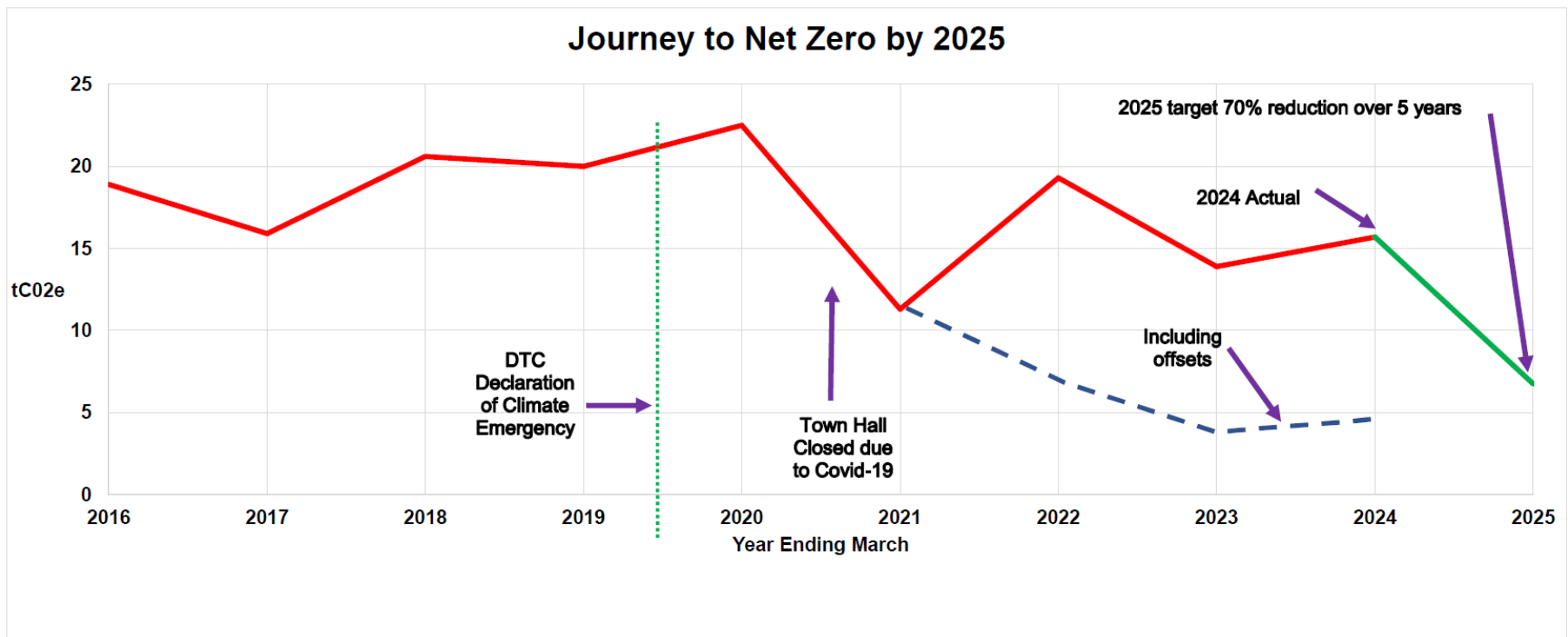- **74% reduction to date (including offsets):**
  - 100% REGO-backed gas and electricity
  - Water offset from rainwater harvesting

t CO2e	15/16 (baseline)	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
Total inc. offset	18.9	15.9	20.6	20	22.5	11.3	6.9	4.0	5.0
Vs baseline		-16%	9%	6%	19%	-40%	-64%	-79%	-74%

- DTC has implemented a range of decarbonisation activities:
  - Tree / hedge planting to date currently excluded from offsets
  - If added this would increase reduction Vs baseline

- DTC may be approaching 'residual emissions':
  - Results for 2024/25 will confirm if further reductions have been achieved
  - Final residual remains to be confirmed

- Overall progress is excellent

- Opportunities for further offsetting within DTC's estate exists:
  - Trees
  - Hedges
  - Solar PV
  - Reduced transport-related emissions

Net Zero 2025: Trajectory

- **Actual Vs Actual with offset:**
  - Target was -70% over 5-year period (from Climate Emergency declaration)
  - Current position with offsets included is -75%

- **DTC has effectively met the target c. 6 mths early**
  - Remaining 25% is effectively now 'residual emissions'
  - 2024/25 should be used to continue decarbonisation where is it practicable/ cost-effective
  - Attention should turn towards other offsets (e.g. nature-based solutions)

Journey to Net Zero by 2025

2023/24: Decarbonisation Activity 1

- **EPC-related:**
  - Response to EPC recommendations largely complete
- **Transport:**
  - Use of fossil fuels for business travel reducing
  - Replacement of pool car with BEV
- **Staff**:
  - Carbon Literacy training completed
- **Allotments:**
  - Rainwater harvesting project
  - Review of options that contribute to decarbonisation and Net Zero
- **Market**:
  - General review of activity and contribution to Net Zero
- **Town Hall:**
  - Discussion with DDC re: use of solar PV (permitted development on listed building TBC)
- **Website**:
  - Climate Emergency pages continue to be developed
  - Action plan provided
  - Support offered to wider community

2023/24: Decarbonisation Activity 2

- **Sustainability checklist:**
  - Applied to Council decision-making, grant & project proposal processes
  - Applied to c. 50 grants / £40k to date
  - Evidence indicates this is positively contributing to decision-making

- **Paper management:**
  - >50% reduction in use, cost & CO_2e)
  - Less printing = less elec & consumables
  - IT supporting move to online

year	Paper used Kg	Kg CO2e	Cost (inc VAT)
2019	204.55	188.1	£466.24
2020	187.12	172.04	£326.10
2021	129.74	119.28	£177.47
2022	224.55	206.45	£491.28
2023	112.27	103.22	£235.02
total	858.65	789.09	£1,696.11

- **Water harvesting:**
  - 10 hectolitres of rainwater storage now in place
  - 'Stacked' benefits: Less grid consumption, storage is further avoided water (offset)

- **2024 Action Plan:**
  - Decarbonisation work continues
  - Exploration of additional offsets from tree and hedge planting underway

- **Environmental Policy:**
  - reviewed and updated in April 2024

- **Complementary activities implemented**

Summary

- **DTC continues to make excellent progress:**
  - 2023/24 footprint slightly above 2022/23
  - **But** decarbonisation trajectory remains downwards
  - Good set of pro-sustainability activities
  - 'back office' attention on this topic is excellent – team is committed

- **Offsetting has been applied correctly:**
  - Both market- and location-based results have been reported
  - -74% Vs baseline
  - Net Zero target effectively reached 6-months early
  - DTC has moved into the 'residual emissions' territory
  - Rainwater harvesting offset also now included
  - Nature-based offsets being considered (hedge & tree planting)

- **Recommendations:**
  - Maintain focus on decarbonisation (where practicable and cost-effective)
  - Final push on residual emissions (waste, transport, water)
  - Implement nature-based offsets, quantify their impact, and included in 24/25 footprint
  - Consider how knowledge gained can be transferred
  - Be ready to re-consider ending the use of grid gas BEFORE the gas boiler needs to be replaced