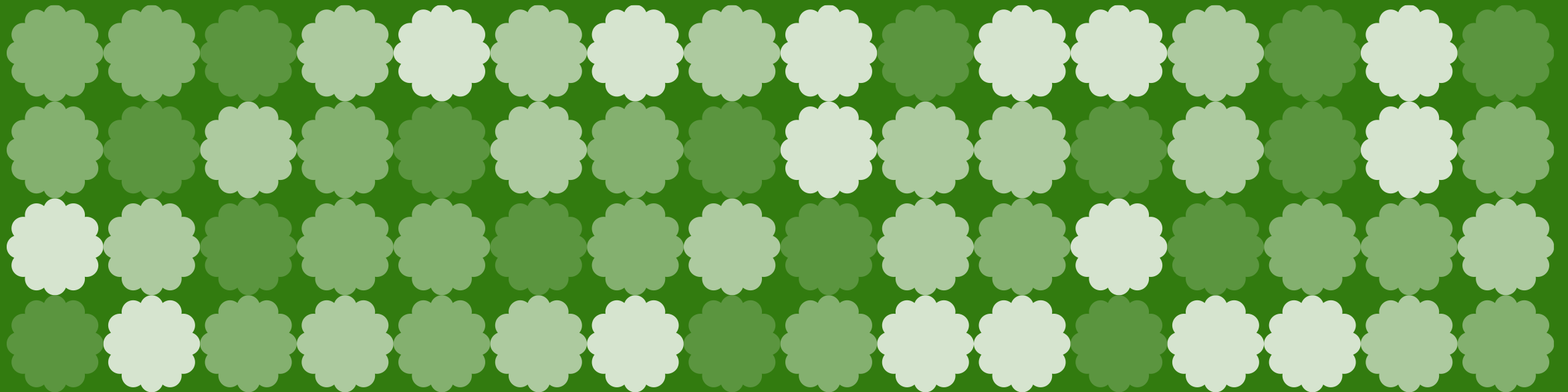


5YEP Development: Carbon Emissions Pathway: summary and next steps

Rachel Berman, Principal Researcher, GMCA



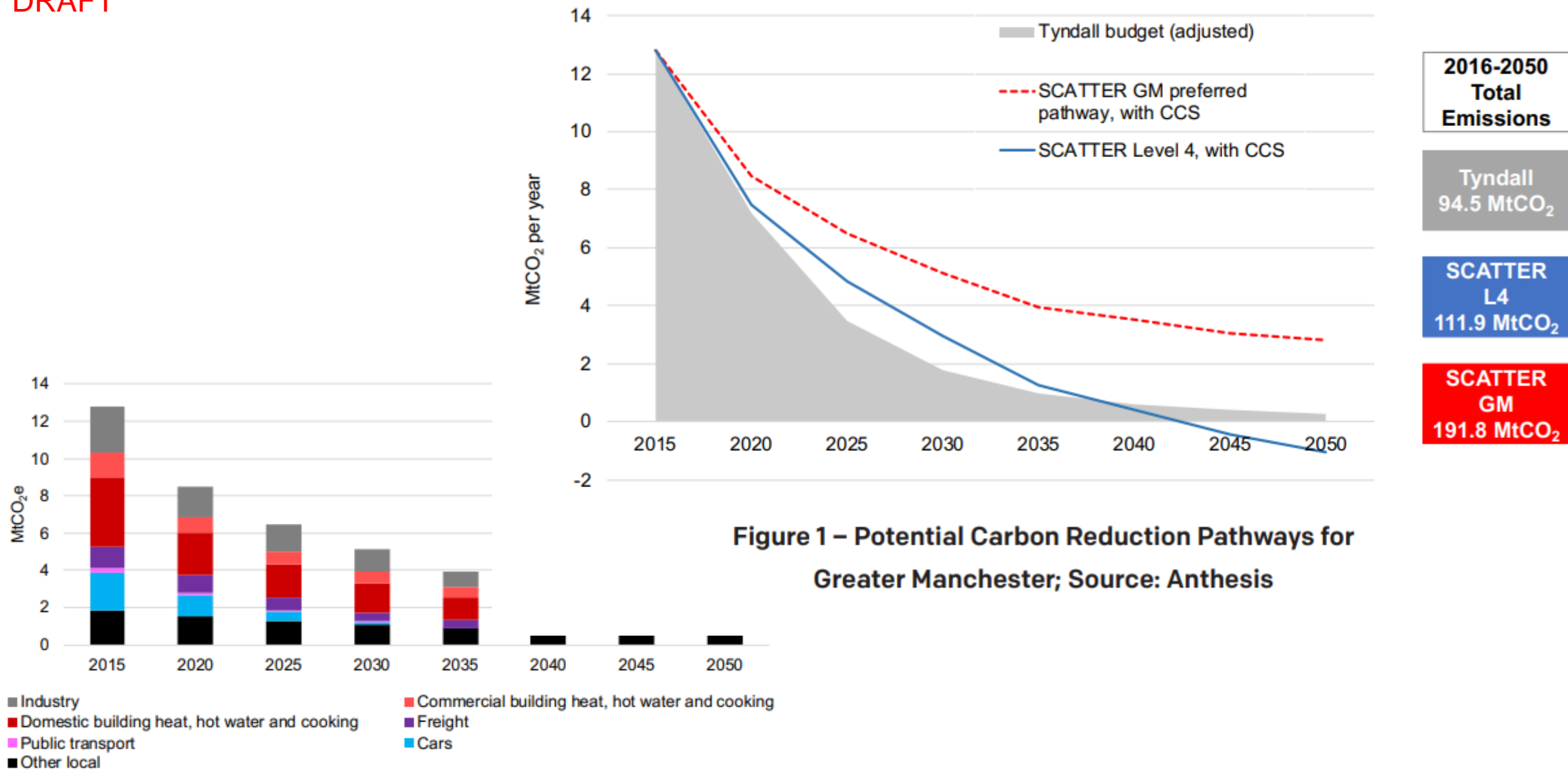
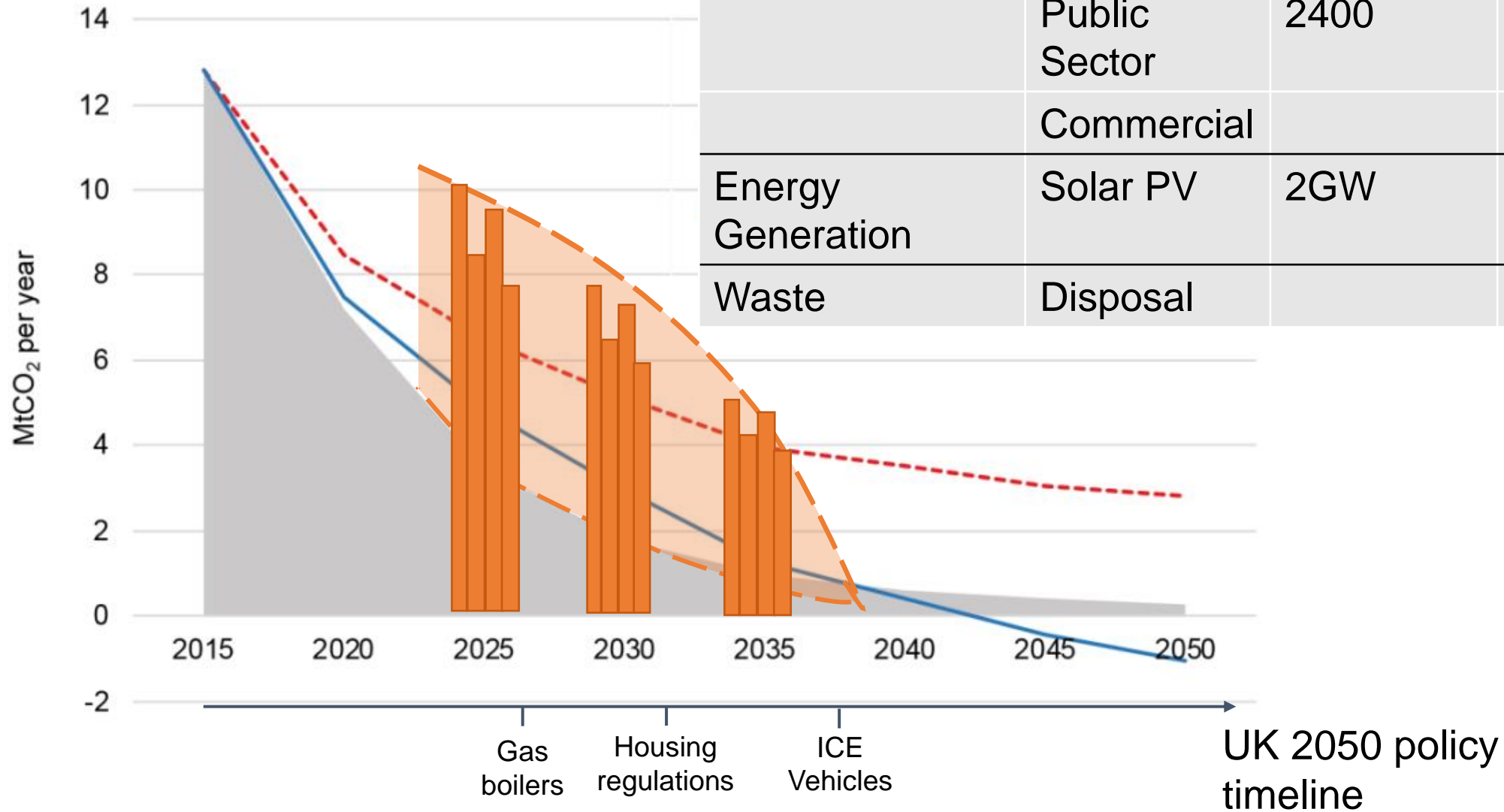


Figure 3 – Sectors where emission reductions come from (“SCATTER GM” pathway) Source: Anthesis

EXAMPLE: INDICATIVE 5-YEAR SECTOR TARGETS

Thematic	Sub-area	Units	CO ₂ e
Retrofit	Domestic	140,000	???
	Public Sector	2400	???
	Commercial		???
Energy Generation	Solar PV	2GW	???
Waste	Disposal		

Targets



UK 2050 policy timeline

Summary:

- Challenge: to better understand emissions pathway forecast ahead of 5YEP development, and inform target setting
- Procurement process Autumn 2023. Commissioned Arup to undertake the work.
- First draft pathway projections and toolkit received.
- Outline of next steps

Building the baseline

Approach - data inputs

Inputs

2019 - 2021

SCATTER 2018 and 2019

Recreation of SCATTER for 2020 and 2021 using DESNZ Subnational total final energy consumption

2023 onwards

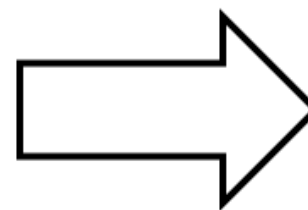
Growth projections – housing and population

National commitments e.g. grid decarb and transport decarb

Contextual

Projections – Tyndall & CCC

DESNZ local authority emissions reporting



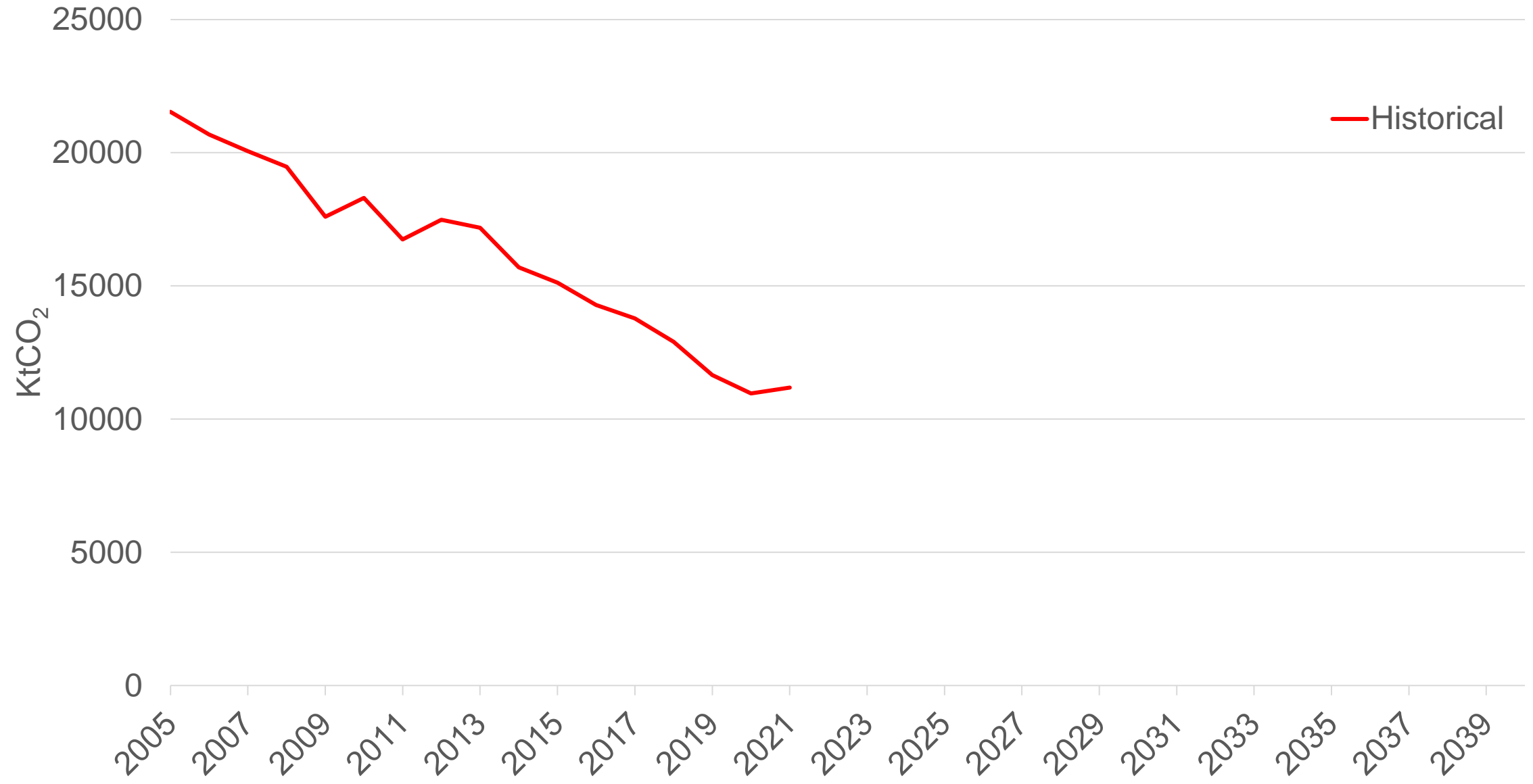
Output

Baseline (2019-2023) + Passive Pathway i.e. future emissions in the absence of policy interventions

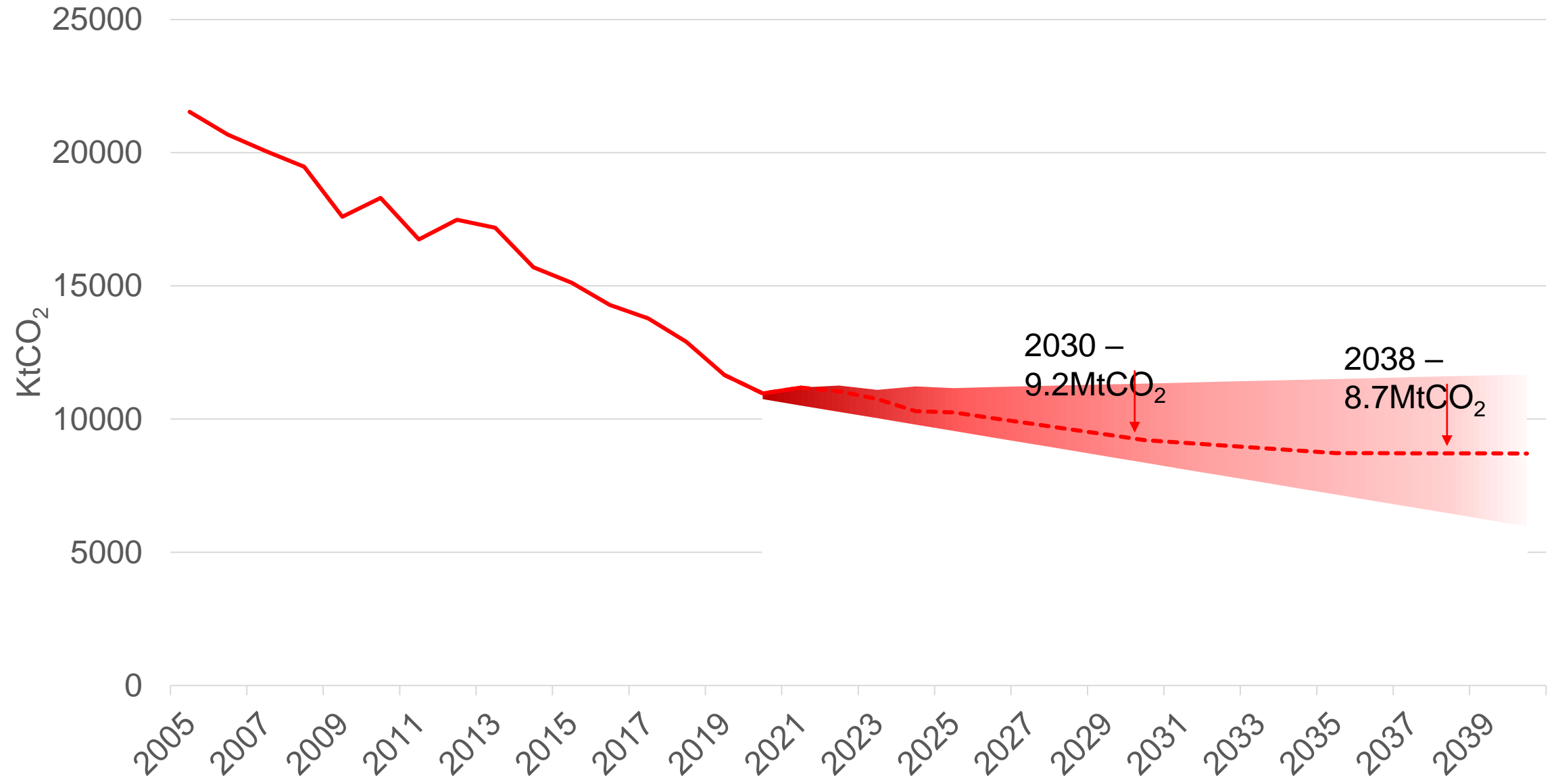
Baseline – (No additional action / “business as usual” / Do nothing)

- Assumes emissions reductions in GM occur as a result of UK national Government policy and action.
- No additional local activity
- BaU projections based on DESNZ Emissions and Energy Projections (EEP) and TfGM projections. EEP accounts for key variables, and climate policies where funding is agreed and policy design sufficiently advanced to understand impacts.
 - NOT a projection of what UK Government NEEDS to do to reach Net Zero (see CCC)
- Shows the projection of GM emissions in the absence of policies proposed in the refreshed 5YEP.

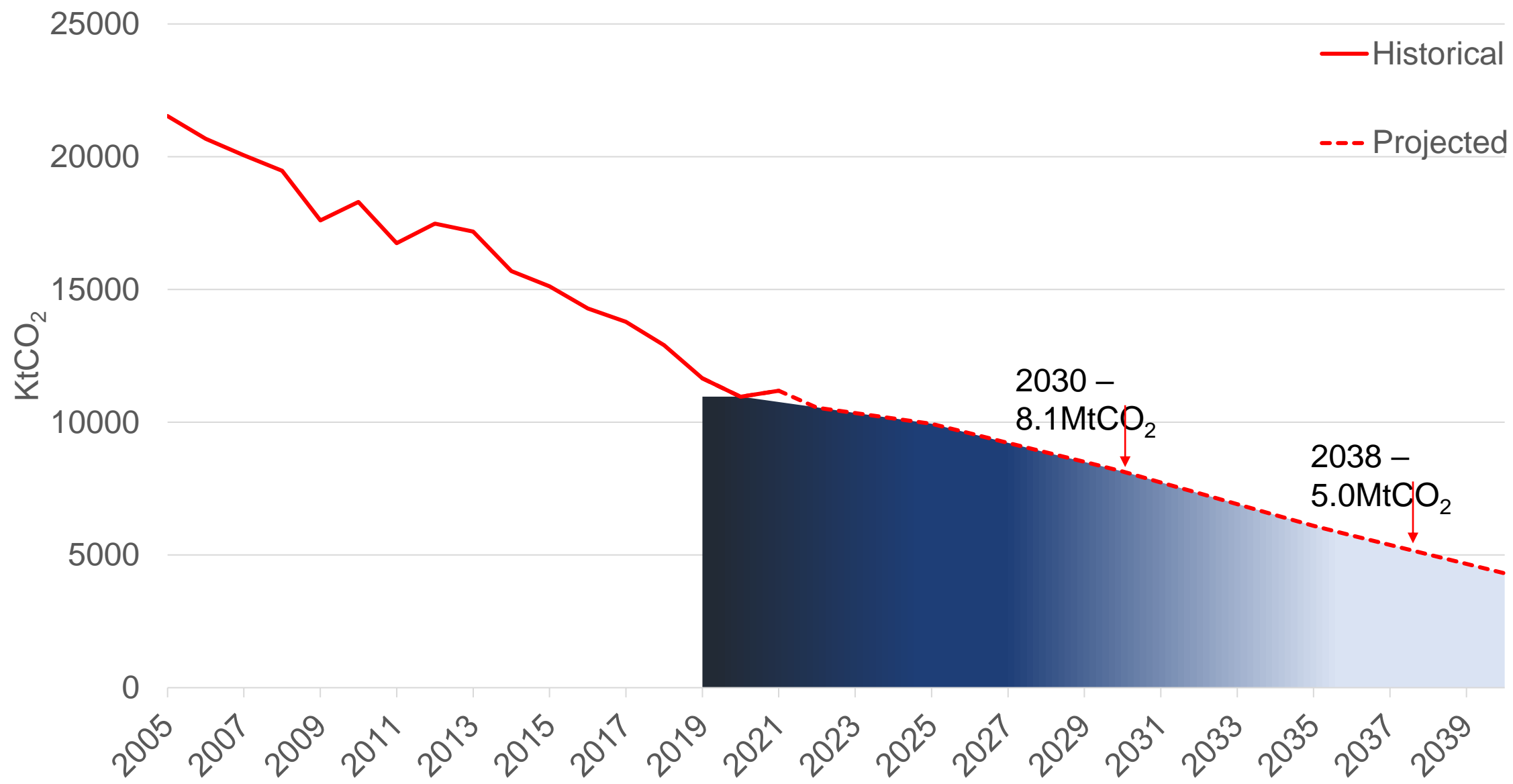
DRAFT



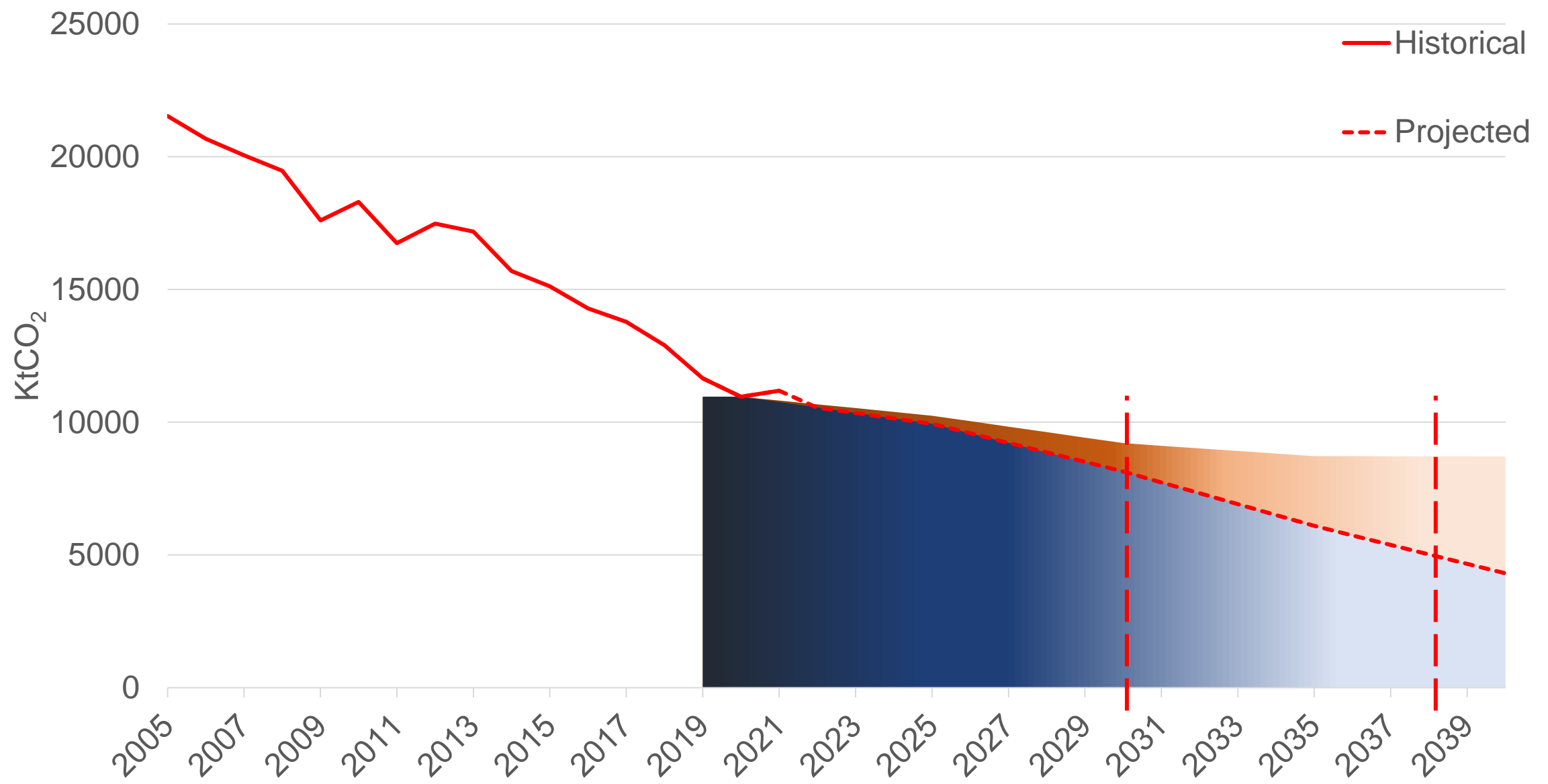
DRAFT



DRAFT



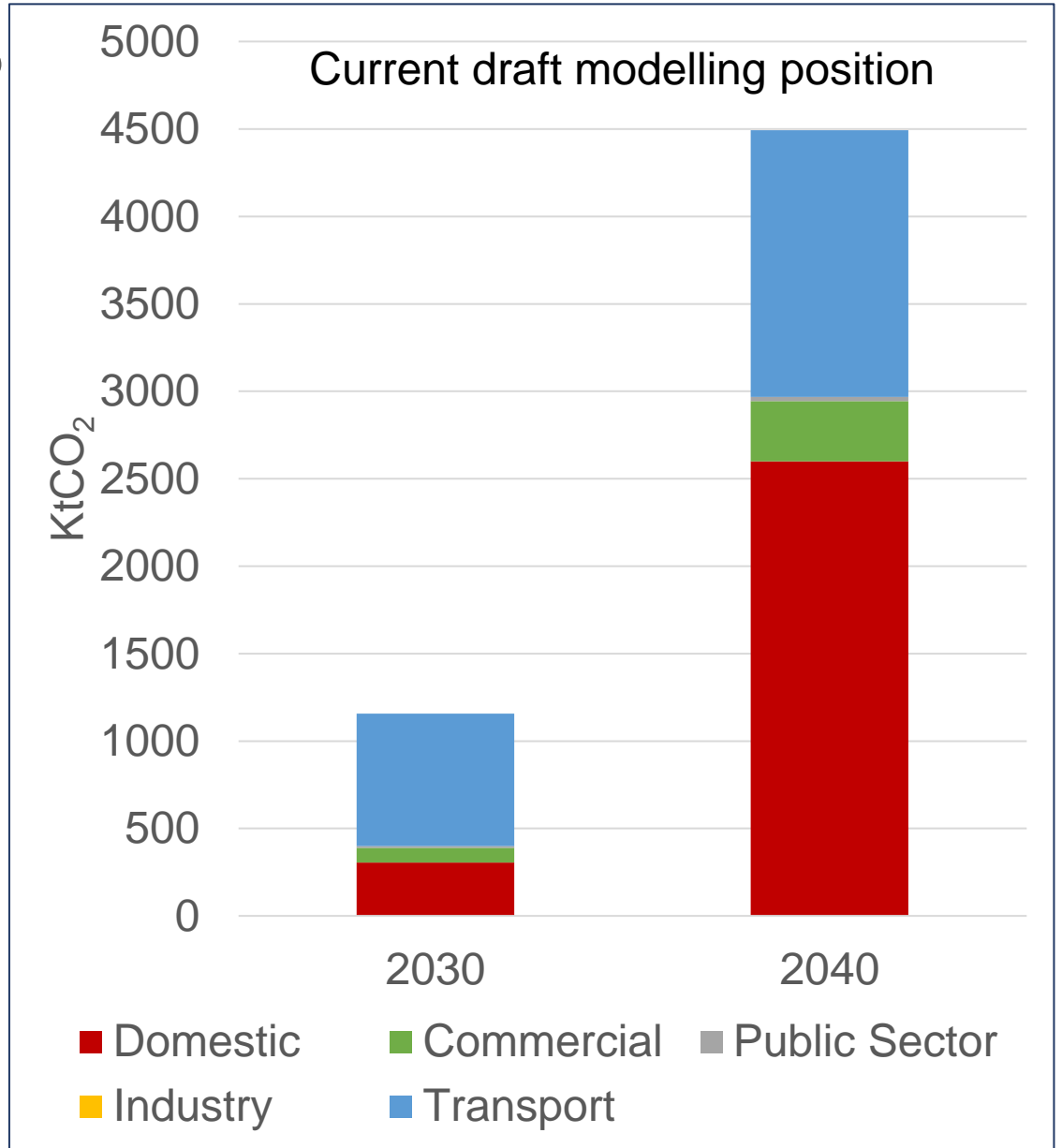
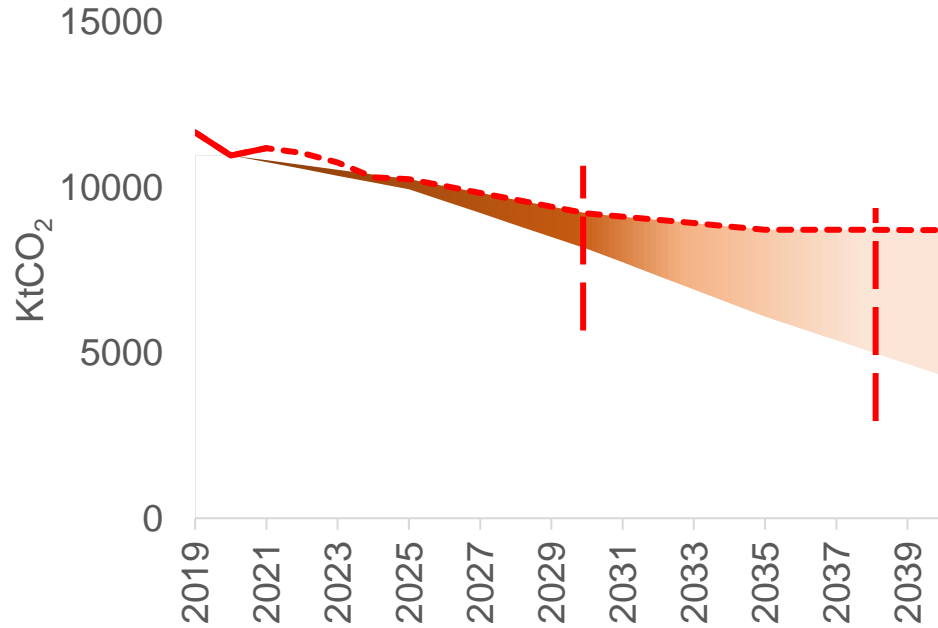
DRAFT



DRAFT

Emissions reductions

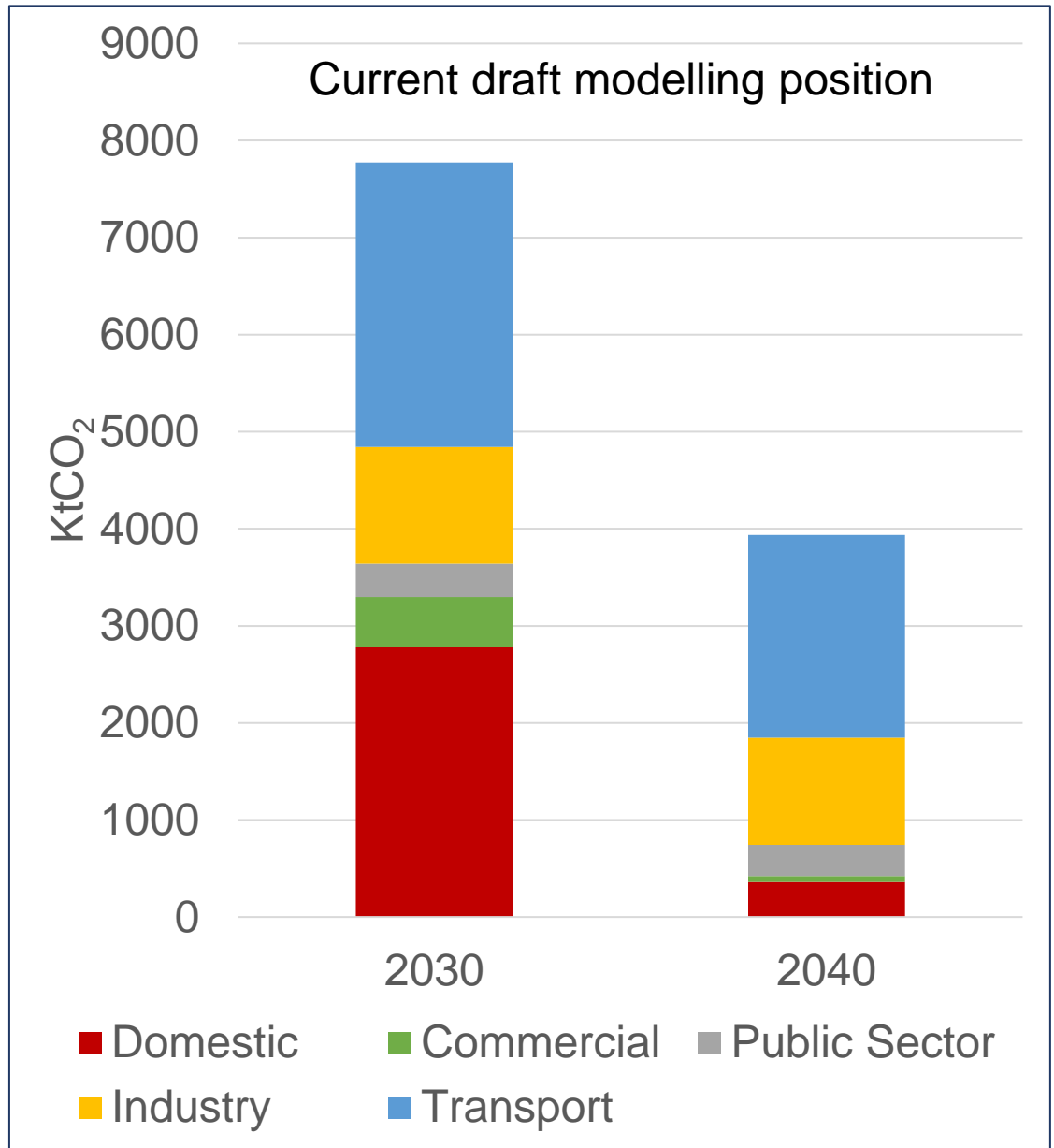
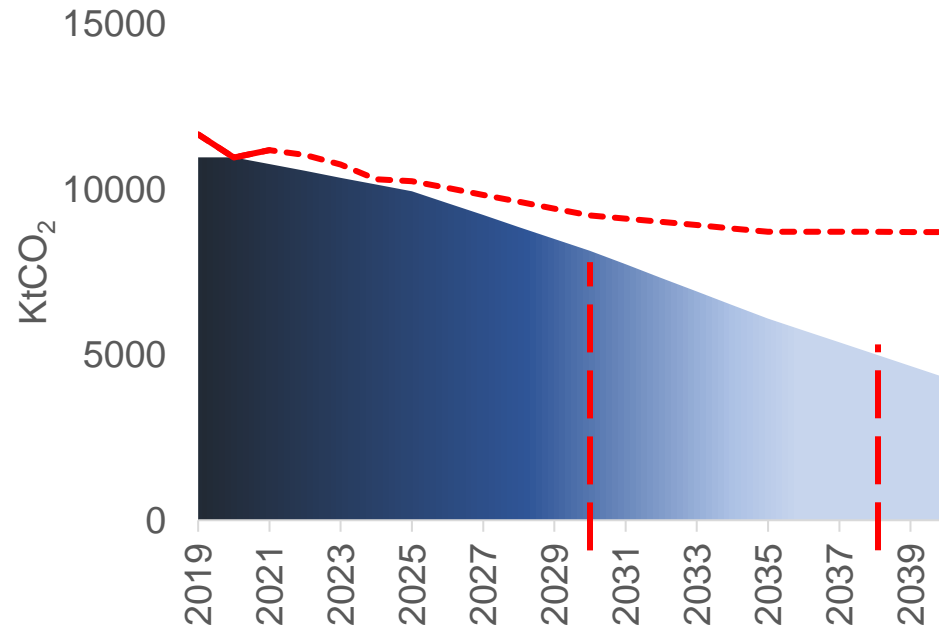
....the known ways



DRAFT

Residual emissions

....the unknown ways



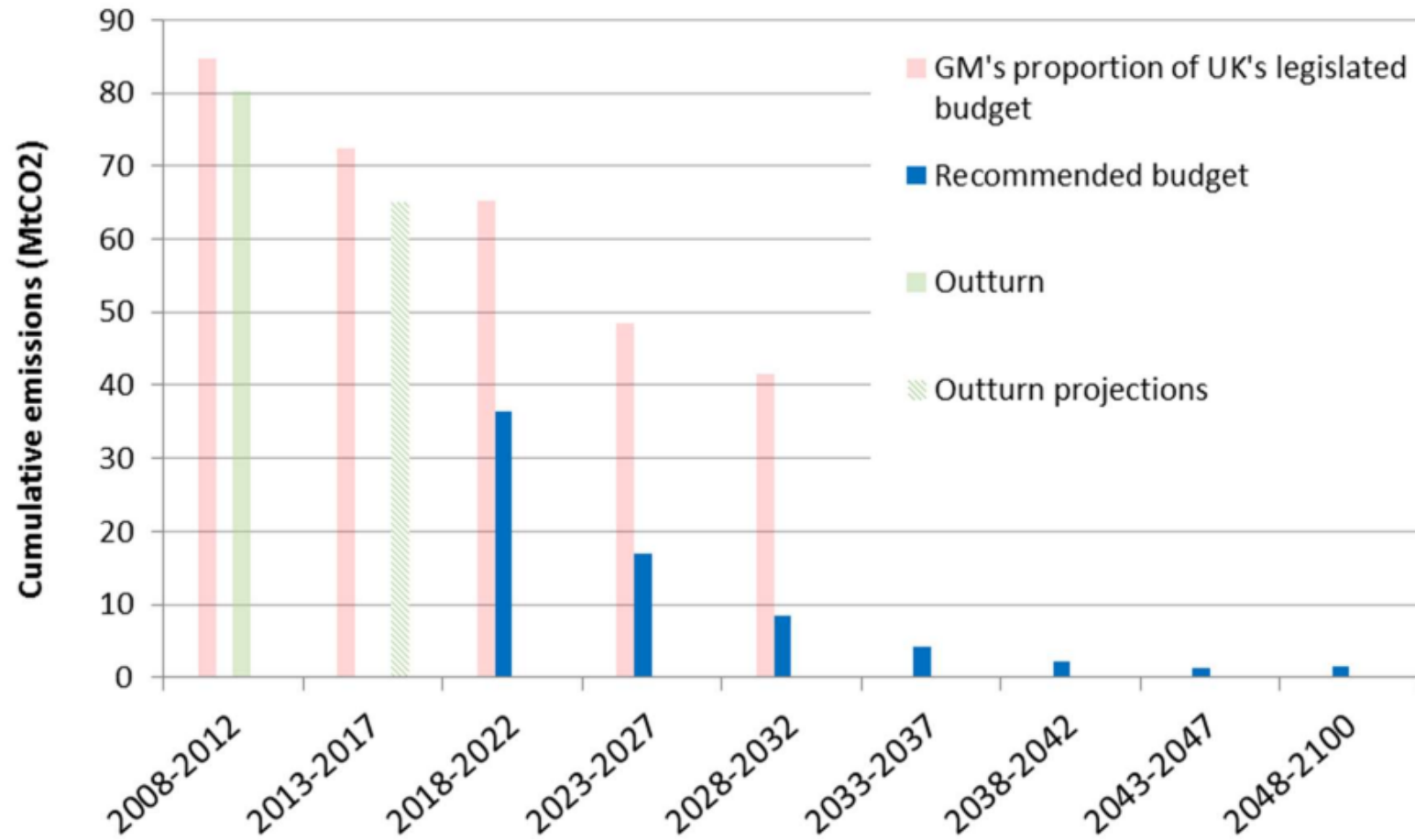


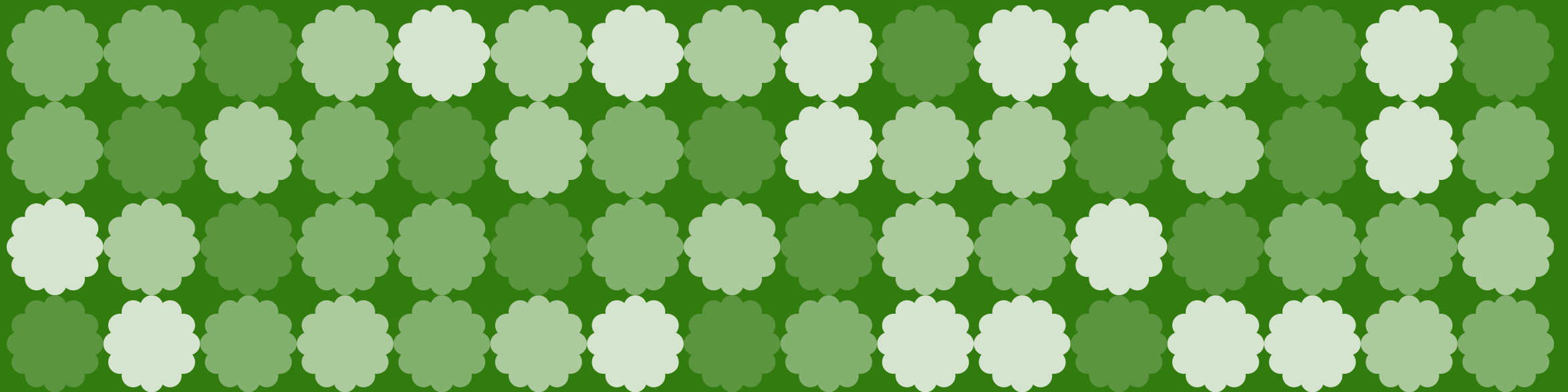
Figure 6: Periodic carbon budgets from 2008 and recommended budgets for Greater Manchester

Key points and next steps

- This is just a model – limitation and caveats about method and assumptions used to construct pathway
 - Only what was known to Arup at point of modelling
 - Risk of double counting
 - Confirmation of CO₂/CO₂e
 - Confirmation of transport activities
- Consider high/low scenarios
- Residual emissions reductions – What? How? Who?
 - What is known, what is unknown
 - Carbon metrics workshop with key stakeholders
- Public sector influence

5 Year Environment Plan Development

Robyn Smith, Mission Based Approach Project Manager, GMCA



Progress so far

Drafting

- Reviewing the vision, aims and objectives for the plan.
- Drafting the key actions for GM over the next 5 Years.
- Began drafting the plan.

Engagement/feedback

- First round engagement with key stakeholders for initial feedback on the vision and actions
- Ongoing engagement with specific sectors/audiences e.g. business roundtables, GM Equalities Panel, YCA
- LA Surveys

Emissions Pathway

- Working with Arup to develop an emissions pathway to 2038
-

Structure of the plan

Vision	What the longer-term vision for a greener GM looks like
Aims	The key long-term results required to achieve that vision for a greener GM
Objectives	The shorter term, specific results required to achieve our aims
Actions	The practical actions to be taken over the next 5 years that will contribute to delivering on our objectives.

**Wider impacts
(contextual)**

Our businesses have higher productivity and our public sector has lower operating costs, and more money stays local
Our carbon goods and service sector has grown, creating sustainable good quality jobs as we not only buy net zero we supply it
Our homes are warmer, healthier and have better air quality and cost no more to heat too
Our actions are recognised as leading the way, attracting inward investment



Our businesses and residents recognise and advocate the wider benefits net zero and sustainability brings, and act accordingly

Our land use is resilient, supports nature, biodiversity and provides us with the amenities we need, when we need them

Our water environment is resilient, stable, supports nature and provides us with the amenities we need, when we need them

Our energy is renewable, resilient and increasingly locally generated keeping our money local too

Our impact decision making, and evaluation makes the important measurable not the measurable important

Final outcomes

Our approach to consumption and ownership reflects and supports our environmental objectives

Our products are designed, made, distributed and used to minimise environmental impacts and maximise benefits to

Our existing homes are healthy, resilient, well adapted and efficient and can be affordably heated by all of us

Our new buildings are efficient, adapted, and resilient meeting user needs and are aligned with our net zero goal

Our wider built environment is resilient, well adapted and efficiently heated and cooled with renewable energy



Our approach to net zero is adaptive, innovative, inclusive and open to doing things differently

Our access to finance products enables the acceleration of our actions to benefit everyone

Our economy has the resilience, capacity, skills and means to deliver and benefit from our environmental ambitions

Our travel choice decisions think active, then public transport options, before private EVs

Our public transport system meets the needs of all, enables active travel and is aligned to our environmental ambitions

Intermediate Milestone

Increased leverage of private sector investment to accelerate Low Carbon delivery
Increased awareness of the low carbon opportunities and services available to support
Increased availability of skilled companies and workers in GM
Implementation of new financial instruments / funding vehicles to support Low Carbon Activity

Our aims to deliver on the vision

1. Our **energy infrastructure** is smart, flexible and fit for a low carbon, sustainable future
 2. Our **buildings** are smart, flexible and energy efficient
 3. Our **transport** system is reliable, integrated, inclusive, affordable and enables active and sustainable **travel**
 4. Our **natural environment** is enhanced, providing benefits for nature and people
 5. Our city region transitions to a **circular economy** and our **waste** is reduced, reused, recycled or recovered
 6. Our residents and businesses are supported to adopt more **sustainable** living and business practices
 7. Our city-region is better **adapted** to the increasing impacts of climate change and is more **resilient**
 8. Our **air quality** enhances the health wellbeing and quality of life of the city region
-

Objectives/Actions

- Reflecting on the vision and aims objectives were developed for each aim.
 - For each objective cross sectoral actions have been developed.
 - The actions have been split into direct (what is in the lead's control) and enabling actions (engaging/influencing).
-

Aim 2: Our buildings are smart, flexible and energy efficient

- Increase the number of homes retrofitted
- Increase the number of public and commercial buildings retrofitted
- Increase the number of low carbon heating systems installed

EXAMPLE



Increase the number of homes retrofitted (direct actions)

	Action	Lead
1	All social housing with EPC of C or below should have a retrofit assessment (in line with PAS2035) by 2025.	GMCA/Districts/Social Landlords
2	All residents with EPC rating D or below should consider investing in retrofitting their property.	ENWL/GMCA/Districts /Businesses
3	All residents should consider the uptake energy saving measures	Residents
4	Support the creation of a range of retrofit finance offers to support residents to retrofit their homes	GMCA/LAs
5	Pilot bespoke higher Minimum Energy Efficiency Standards for existing private rented.	LAs

EXAMPLE

Increase the number of homes retrofitted (enabling actions)

	Enabling Action	Lead
1a	Work with social landlords to access govt. finance for social homes.	LAs
1b	Establish grant scheme funding from a devolved single-settlement funding for retrofit.	Govt./GMCA
1c	Help RSLs agree uniform specification for key technologies, underpinning the potential for collaborative or forward procurement exercises	LAs/GMCA
1d	Complete research into how EPC data can be improved.	Academia
1e	Develop bespoke processes to support large-scale social housing retrofit projects to connect to the network	ENWL
2a	Expand the Feel the Benefit Portal and online advice to include procured and quality assured delivery partners	GMCA/LAs
2b	Support residents to invest in their properties by expanding a 'Willing to Pay' retrofit service.	LAs
2c	Provide better information to residents e.g. examples/open house events, promote trusted providers,	GMCA/LAs, landlords
2d	Promote info & support available to your staff to help them reduce their home energy bills, including exploring payroll loans to support domestic retrofit.	Businesses/LAs/GMCA
2e	Deliver warm home prescriptions to households most in need	NGO
2f	Ongoing consumer research into household preferences and choices	Academia/GMCA
2g	Up-skill retrofit assessors and installers to provide enough supply to meet demand	Colleges
2h	National planning policy to adopt whole life carbon assessment	National govt.
4a	Pilot projects to develop or trial green finance support mechanisms	National govt./GMCA
4b	Work with Government, GB Energy and high street and institutional lenders to identify and realise private finance	National govt./GMCA
5a	Establish ability for setting higher Minimum Energy Efficiency Standards, including through the Trailblazer devolution agreement.	National govt./GMCA

EXAMPLE

Next Steps

Drafting

- Finalising the actions after engagement/consultation
- First draft complete by end of July
- Final draft ready for approval by November

Engagement/feedback

- Secondround engagement with key stakeholders for initial feedback on the vision and actions
- Ongoing engagement with specific sectors/audiences e.g. business roundtables, GM Equalities Panel, YCA
- LA Surveys

Monitoring and Evaluation

- Develop targets
- Develop monitoring and evaluation approach

Publication and Launch

- Develop comms plan
 - Launch at the Green Summit in December
-