

# Scottish Government- Net Zero Challenges, Targets and Policies

---

*Thursday 29th April 2021*

*Bus Decarbonisation Taskforce – Energy*

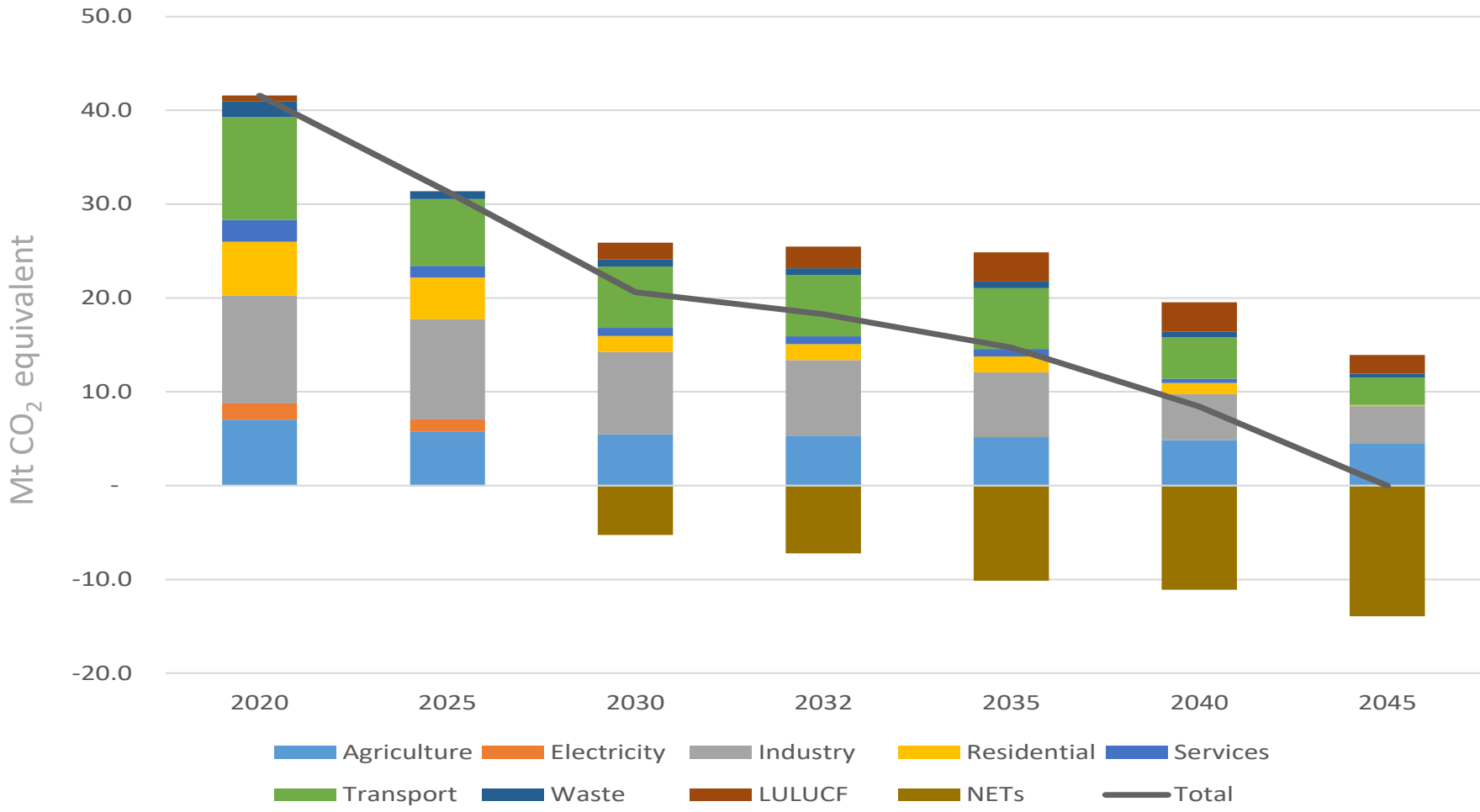
***Directorate for Energy and Climate Change***



Scottish Government  
Riaghaltas na h-Alba  
gov.scot



# Scotland's statutory emissions envelopes



- 75% reduction in emissions by 2030
- Net zero emissions by 2045
- Annual targets (instead of carbon budgets)
- Climate Change Plan update (CCPu) sets out the SG policy response and includes over 100 new policies and proposals
- Agreed and signed by whole Cabinet to promote collective accountability.



# Challenges to the Pathway for Net Zero

It's not just meeting the targets, but **how** we meet them

- **A Just Transition** - Scotland's Just Transition Commission summarises this as ensuring that both the costs and benefits are shared fairly across all parts of society
- **Whole system approach** – The different energy system pathways we can take to net zero mean that we need to develop greater certainty about the options that exist and how to deliver them. We will therefore develop a set of whole system scenarios for Scotland during 2021 which will explore the timelines and interdependencies in each of these options.
- **Energy Network Principles** - Investment decisions made by Network companies over the next 5 years (as part of ED2) will be critical for the Scottish 2030 interim targets. In order to support the industry to account for devolved policy, government has worked closely with Ofgem and Network companies to agree a number of principles that should be adopted through the price control process and reflected in regulatory decision making.



# CCPu Electricity: key challenges and policy response

- Scottish generation was capable of meeting Scottish demand for 99.8% of the year during 2019/20, with imports from England and Wales ensuring security of supply for the remaining 0.2%.
- Provisional figures indicate that, in 2020, the equivalent of 97.4% of our electricity consumption was generated from renewable sources in Scotland.
- As well as decarbonising the electrical energy generated in Scotland, we also need to address the substantial challenges of maintaining security of supply and a resilient electricity system
- Our climate change targets mean that we need to continue our progress, and move from a **low to a zero carbon electricity system**, with the potential for **Negative Emission Technologies to deliver negative emissions from our electricity sector**.

**Renewable electricity**

**Target**  
Equivalent of **100%** of Scotland's gross electricity consumption to be generated from renewable sources by 2020.

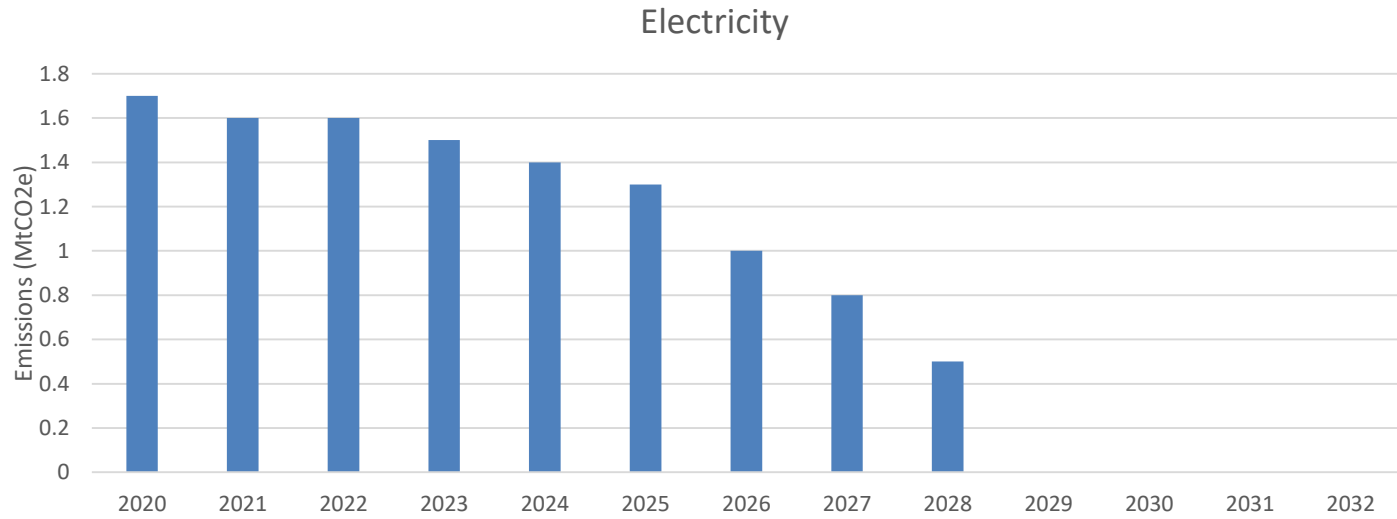
Renewable electricity generation in Scotland during 2019 was equivalent to **90.1%** of our gross electricity consumption during that period.

↑ **13.4** percentage points from 2018.

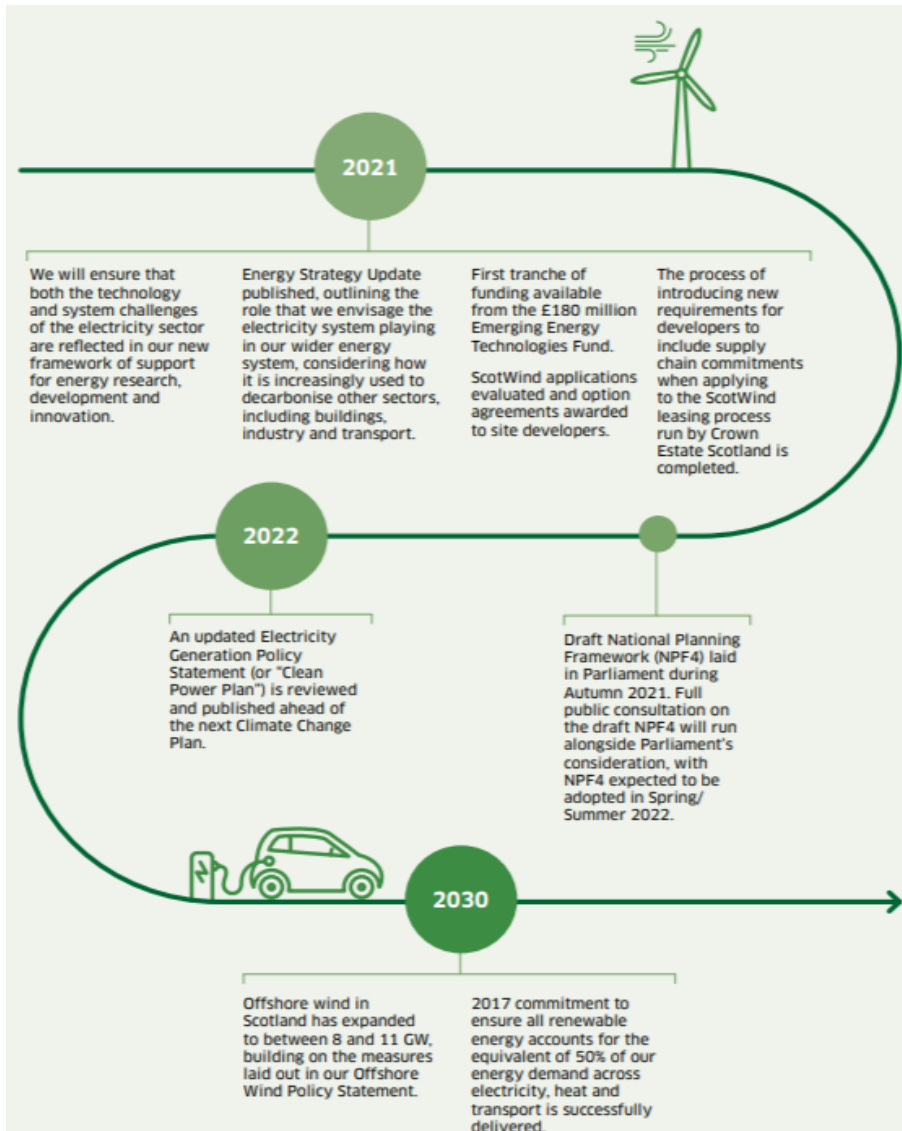
**Capacity**  
**11.9 GW** of renewable electricity projects operational as of June 2020

↑ **0.1 GW** from June 2019.

**13.9 GW** of projects currently consented in the pipeline



# Climate Change Plan Update: Electricity



We will deliver the actions of our **Offshore Wind Policy Statement**, published in October, including support for supply chain, planning, innovation and skills. These will support between **8 and 11 GW of offshore wind capacity by 2030**.

In line with CCC recommendations, we will review and publish an updated **Electricity Generation Policy Statement** (or "Clean Power Plan") by 2022"

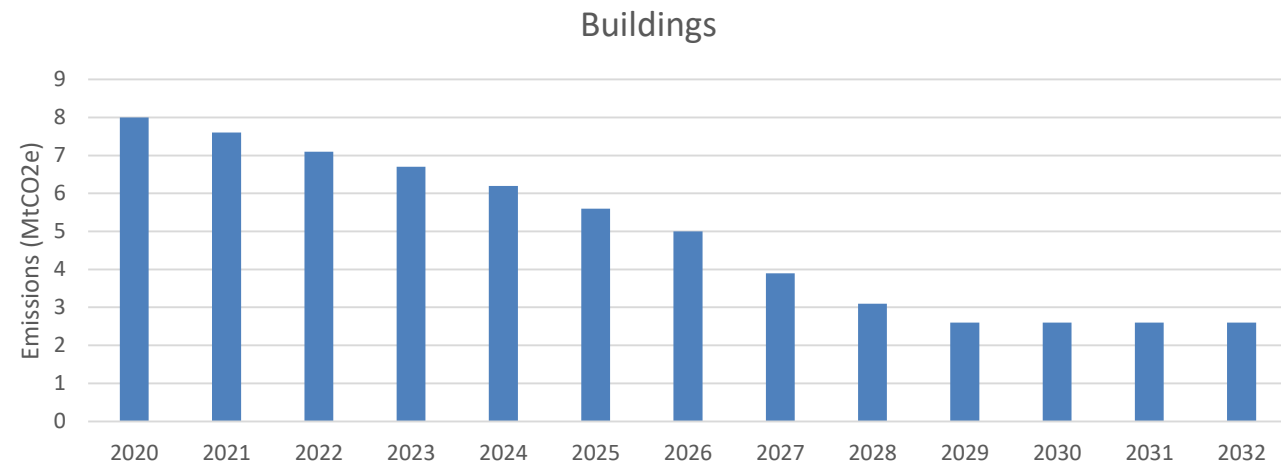
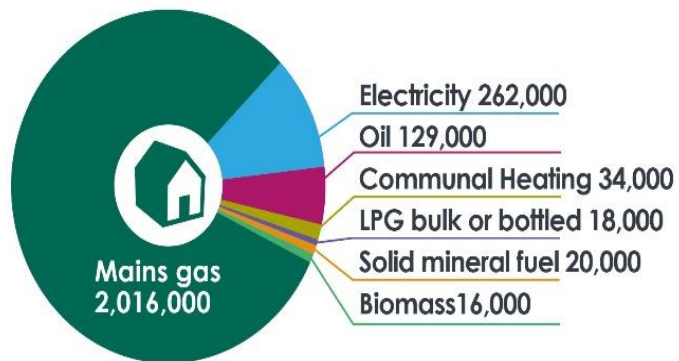
In 2021, we will launch a call for evidence on technologies that can transform our electricity system, including **energy storage, smart grid technologies**, and technologies to deliver **sustainable security of supply**.

Our **Energy Strategy Update**, to be published this year, will set out in further detail the role that electricity generation will have in the wider energy system



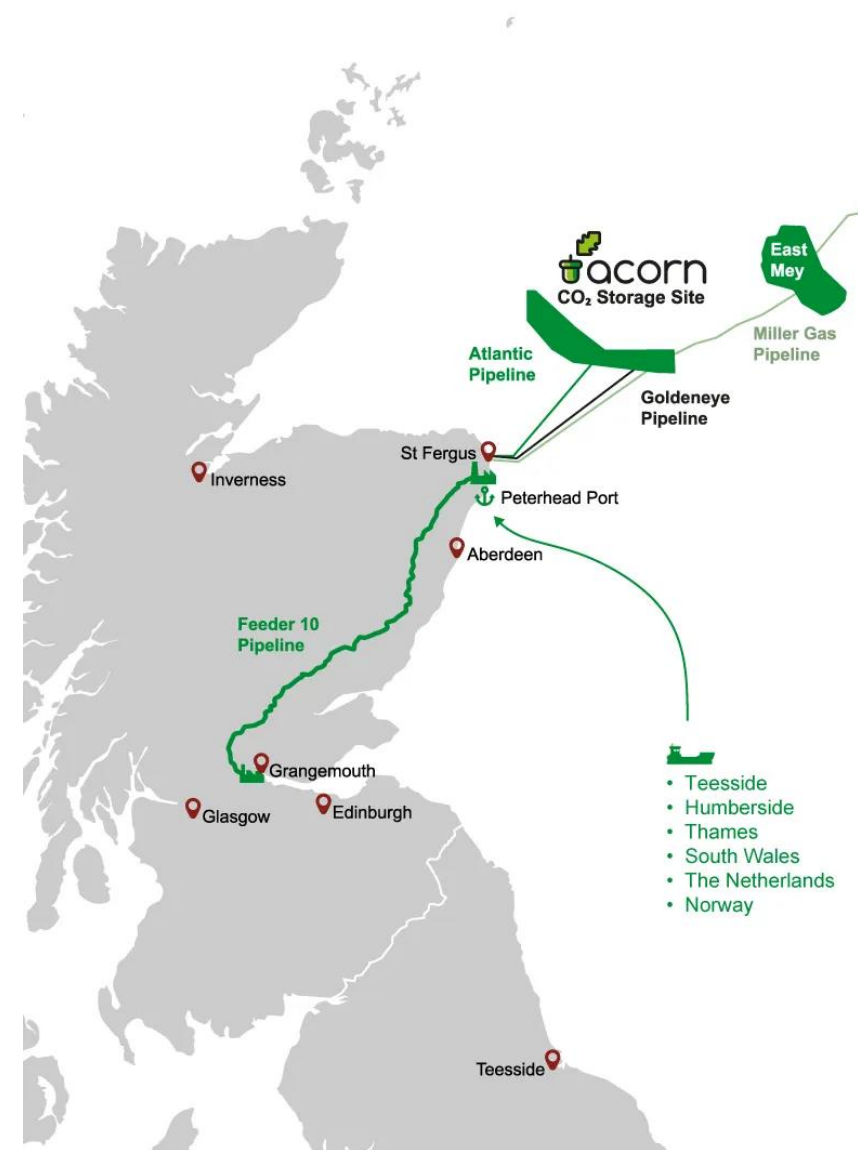
# Decarbonising Heat: Challenges and Policy Response

- Our target of a 75% emissions reduction by 2030 means we must rapidly accelerate heating system conversions from the current rate of around 0.1% of homes converting per year to a rate in the region of **5-10% (over a hundred thousand) homes per year**.
- As announced in the Programme for Government, **we will invest £1.6 billion in heat and energy efficiency over the next Parliament**, using this to leverage in UK Government and private finance to see, as a minimum, the rate of zero emissions heat installations in new and existing homes and buildings **double every year out to 2025**.
- Heat in Buildings Strategy is framed around 3 key areas: **regulatory change**, delivering **significant investment** and supporting **supply chain growth**.
- **New Build Zero Emissions from Heat Standard** will be introduced from 2024, by which point all new builds will have to have zero emissions heating systems. .



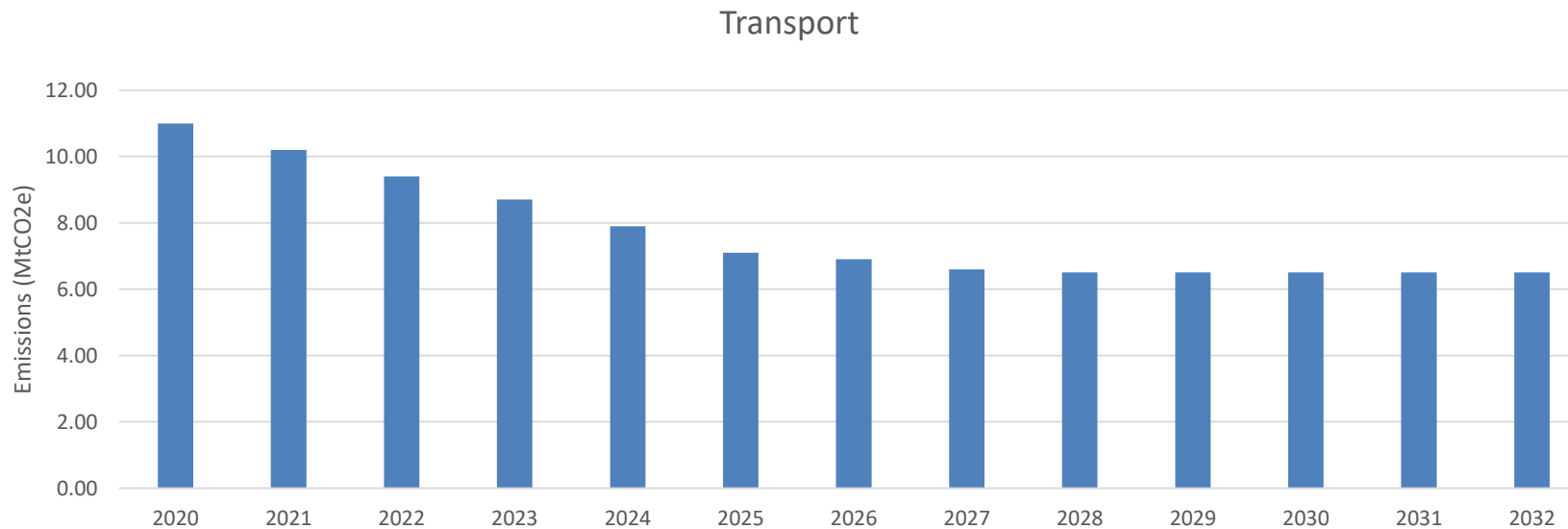
# Negative emissions technologies: challenges and policy response

- Our pathway to net zero is focused on reducing emissions from across Scotland's economy. However, we also need to **bring forward key technologies which will compensate for residual emissions.**
- **Negative Emissions Technologies (NETs):**
  - Publish a Bioenergy Plan to identify the most appropriate and sustainable use of bioenergy in Scotland.
  - Carry out a detailed feasibility study of opportunities for developing NETs in Scotland, ready for the early 2030s.
  - Support for innovation and technology development for GHG removals.
  - Establish continual process to review NETs development and progress.
- The CCPu announced a new **Emerging Energy Technologies Fund of £180 million that will support the development of hydrogen and CCS,** and kick start our ambition for 5GW of renewable (Green) and low-carbon (Blue) hydrogen production by 2030 and 25GW by 2045.



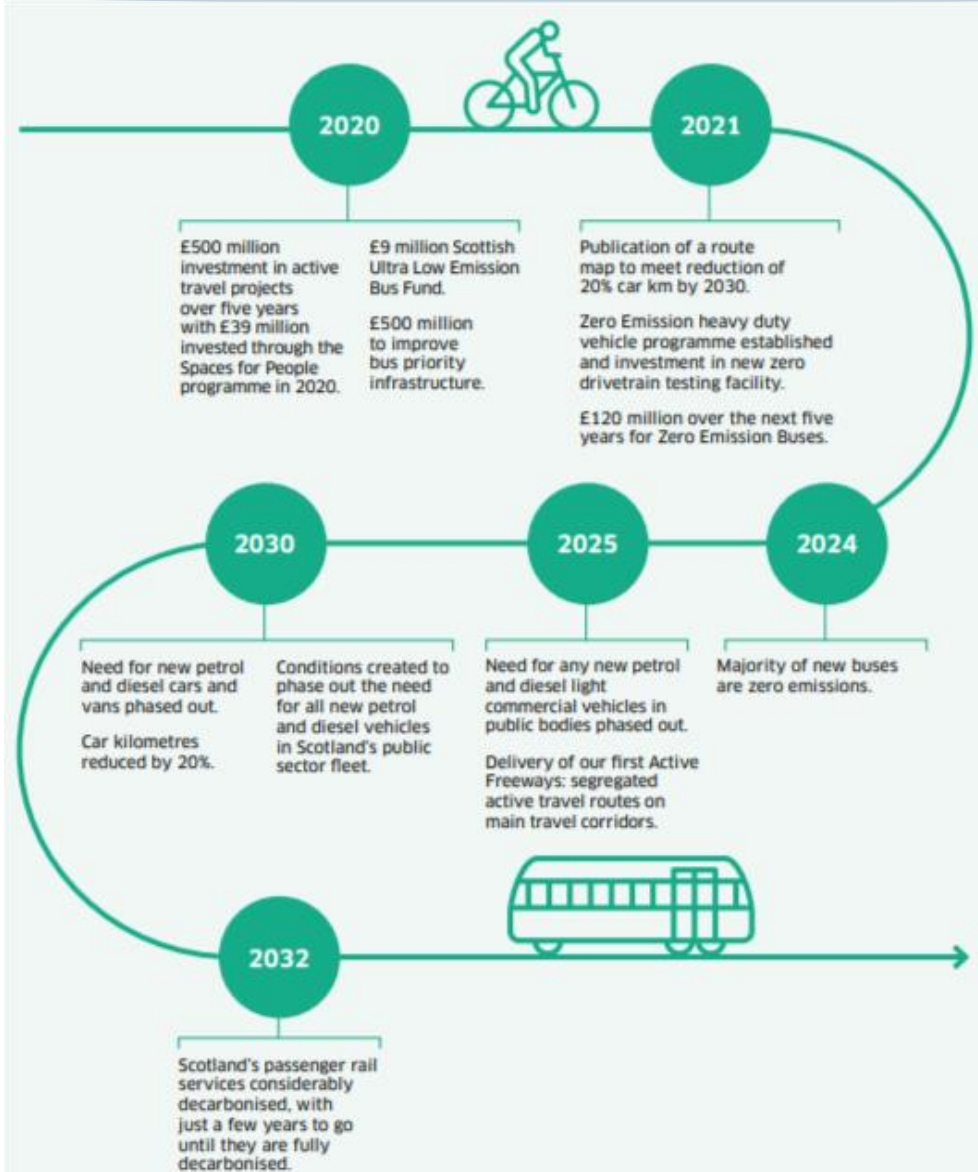
# Decarbonising Transport

- Transport continues to be Scotland's biggest emitting sector, accounting for **35.6% of emissions in 2018**.
- The measures in the CCPu align with those in our National Transport Strategy (NTS2), published on 5 February. NTS2 sets the direction for Scotland's transport over the next two decades and embeds taking **climate action as a core priority** while also prioritising **reducing inequalities**, helping to deliver **inclusive economic growth**, and improving our **health and wellbeing**.
- However, alongside technological advances, **managing transport demand and embedding behaviour change will also be vital**. Cars currently account for almost 40% of transport emissions, so the predominance of car use cannot be overlooked.





# Climate Change Plan Update: Transport



We have made a commitment to **reduce car kilometres by 20% by 2030**, a world-leading aspiration, alongside a boosted commitment to **phase out the need for new petrol and diesel cars and vans by 2030**. We will also work with public bodies to phase out the need for new petrol and diesel light commercial vehicles by 2025

In aviation, we will **decarbonise scheduled flights within Scotland by 2040** and encourage sustainable growth post COVID-19. As announced in our PfG we will aim to create **the world's first zero emission aviation region** in partnership with Highlands and Islands Airports

We are investing **£500 million in bus priority infrastructure**, and we will work with the newly formed Bus Decarbonisation Taskforce to ensure that **the majority of new buses purchased from 2024 are zero emission**.



# *Discussion*

