2030 Net Zero Carbon Sheffield
Business as usual projection

Scope of analysis
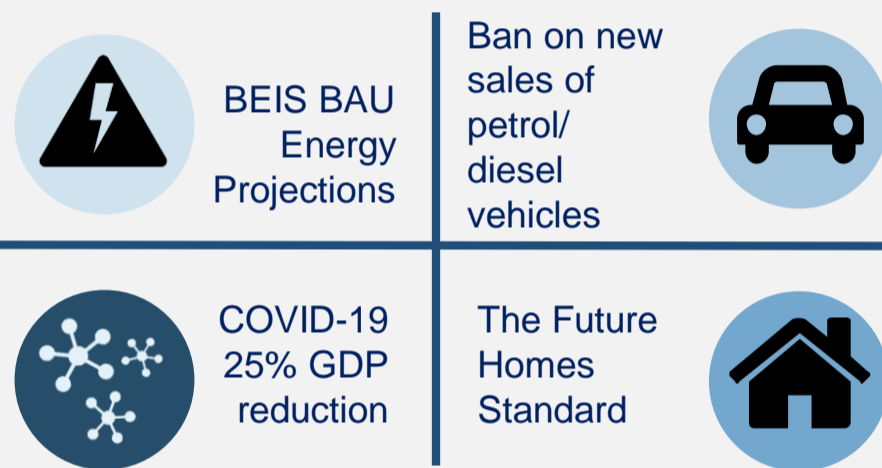
► Projection of WP1 baseline data forward to 2037 under a business as usual (BAU) scenario.
► Assess results against:
  1. Target set by Sheffield City Council for the city to become zero carbon by 2030.
  2. Carbon budgets for Sheffield proposed by the Tyndall Centre – Sheffield's 'appropriate share' of global efforts to reduce GHG emissions under the Paris Agreement.

'BAU' in this project is defined as a scenario where current and expected national and local policies, are implemented and projected into the future.

This follows guidance from the UN Framework Convention on Climate Change (UNFCCC) on BAU emissions scenarios.

Central BAU scenario

► Chosen as the scenario that best represents reality.
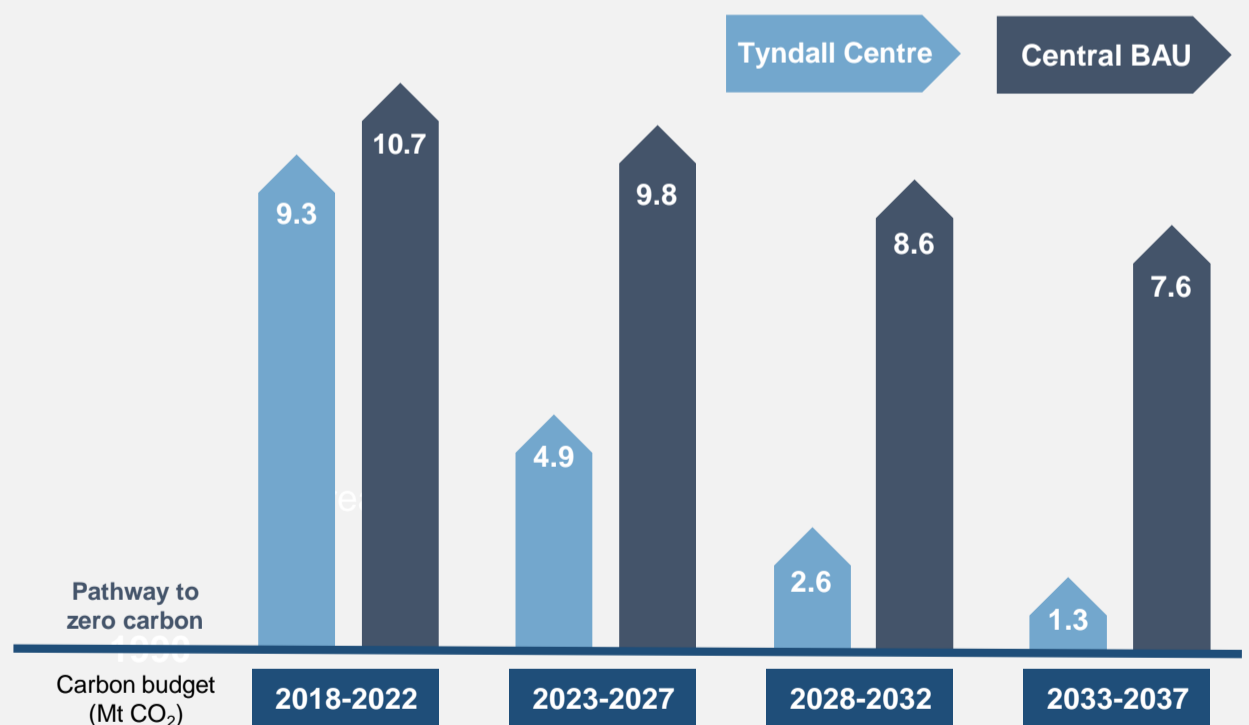► Derived by combining the following scenarios:

BEIS BAU Energy Projections	Ban on new sales of petrol/ diesel vehicles
COVID-19 25% GDP reduction	The Future Homes Standard

► 23.4% reduction in CO_2 emissions by 2030 (from 2017 levels)
► 34.7% reduction in CO_2 emissions by 2037.
► Tyndall Centre carbon budget for 2018-2027 used up by 2025.
► Net zero unattainable by 2050 under Central BAU scenario.
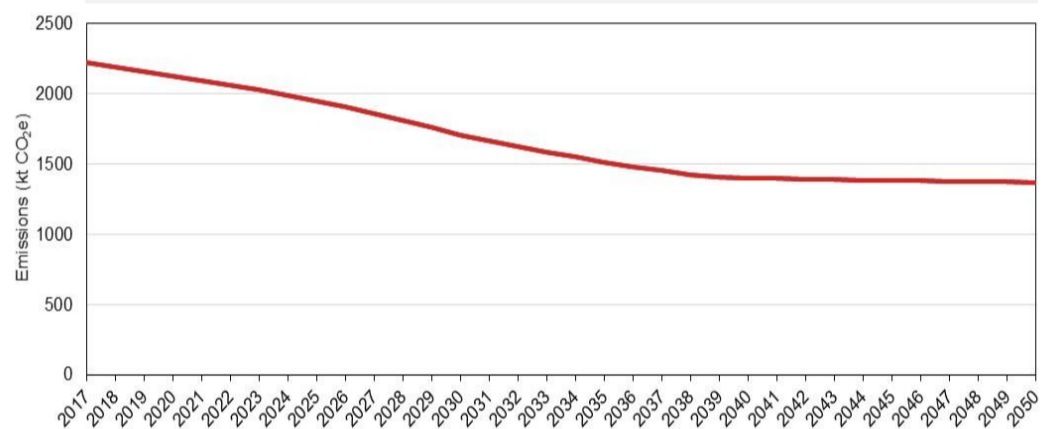
The 'emissions gap'

► The gap between actual emissions and the Tyndall Centre carbon budgets grows over time.

► At the end of the 2033-37 period, Sheffield will cumulatively be more than 18 Mt CO_2e over the carbon budget for 2018-37.

► To reach zero carbon emissions, CO_2 emissions need to reduce to 0.11 Mt CO_2e in 2030.

► Using the Central BAU scenario, CO_2 emissions in 2030 will be 1.6 Mt CO_2e higher than the zero carbon target.

Tyndall Centre   Central BAU

Carbon budget (Mt CO_2)	2018-2022	2023-2027	2028-2032	2033-2037
Tyndall Centre	9.3	4.9	2.6	1.3
Central BAU	10.7	9.8	8.6	7.6

Pathway to zero carbon

SUMMARY

► Whilst expected forthcoming policy announcements from the UK Government will have an impact and help in reducing CO_2 emissions in Sheffield, it will still not be enough to ensure that Sheffield reaches net zero within a suitable time frame.

Information based on 2017 data (the latest year for which it is available).

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Sheffield City Council

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