

MAYOR OF LONDON

Delivering a zero carbon London

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Zero Carbon Policy Team



Recap

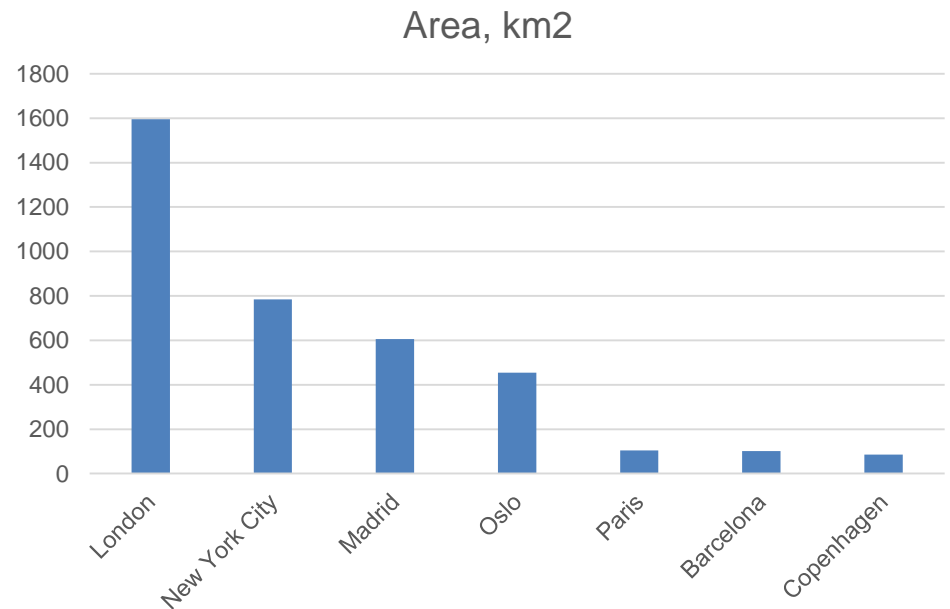
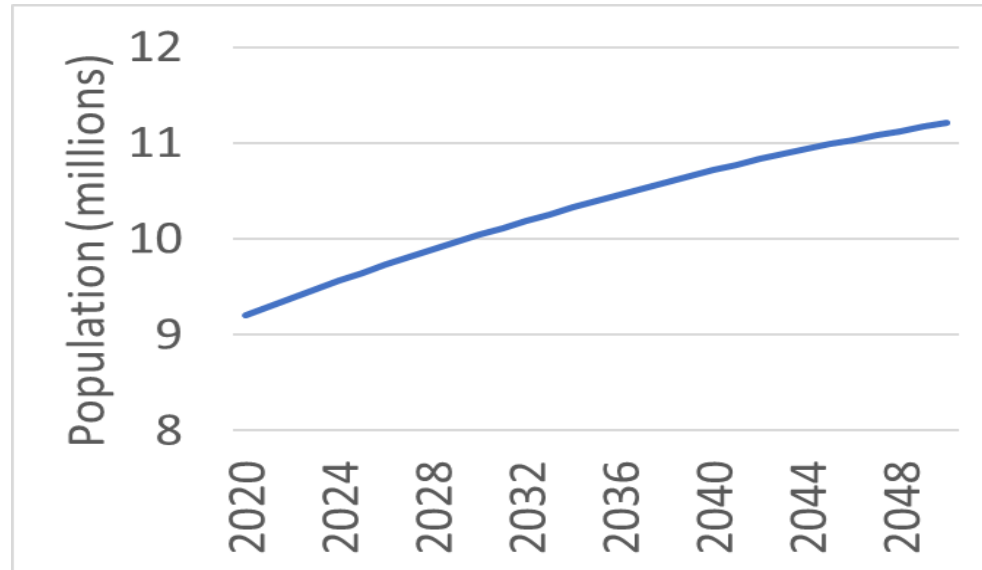
- 1) Sadiq Khan elected in 2016 with a zero carbon target by 2050
- 2) The London Environment Strategy sought to set out a robust and defensible pathway to achieve this, in line with the Paris Agreement
- 3) We chose to adopt a short term carbon budgets approach to achieve this long term target



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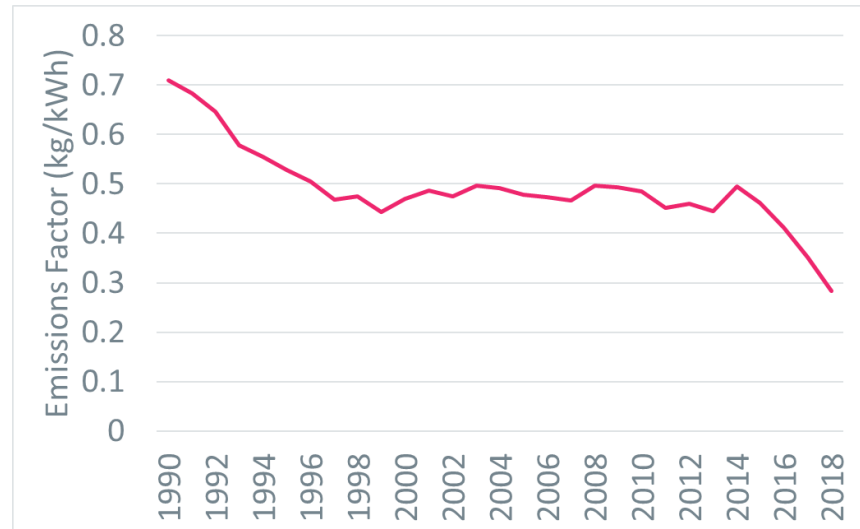
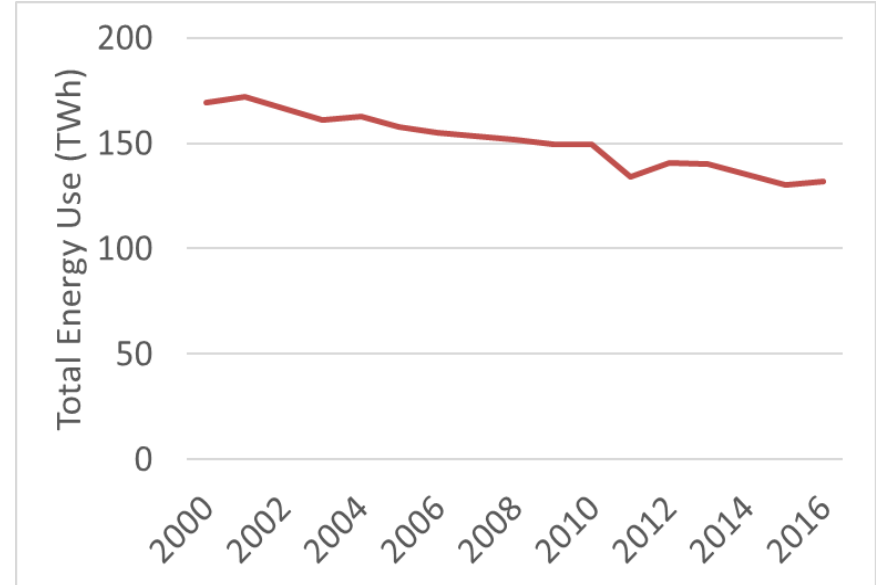
The challenge

- 1) London is a huge city, in area and population.
- 2) Population is expected to grow to over 11 million by 2050
- 3) 33 boroughs manage local services including waste, roads and planning



Where we are now

- 1) London's total energy has reduced by over 20 per cent since 2000
- 2) Emissions have decreased by 32 per cent since 1990
- 3) Carbon intensity of UK electricity has reduced by over 60 per cent since 1990
- 4) BUT... Heat (natural gas) and transport (diesel/petrol) remain key challenges



How we developed a zero carbon pathway for London

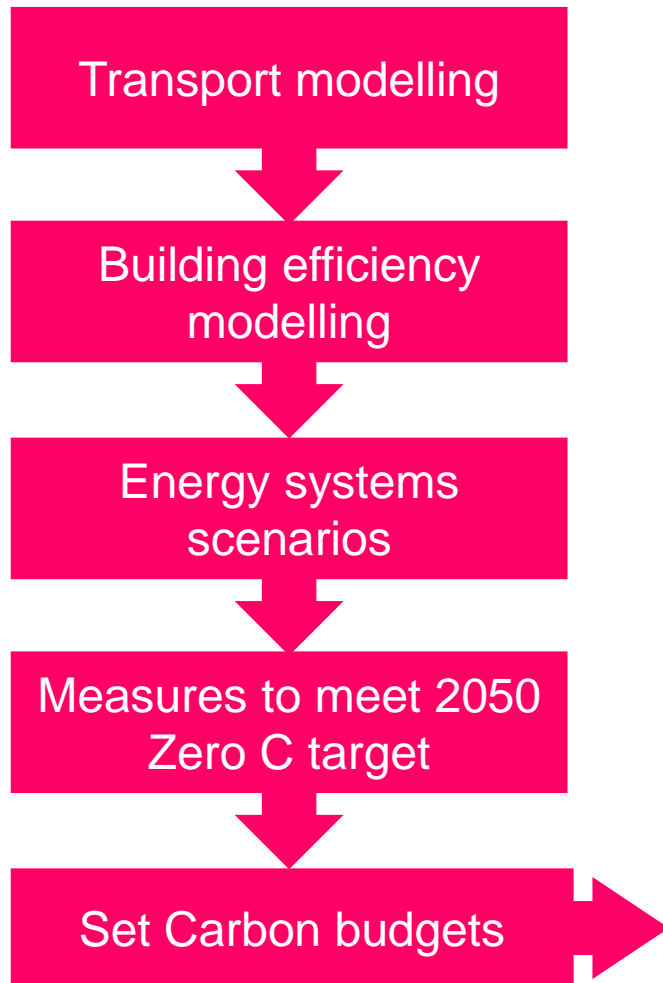
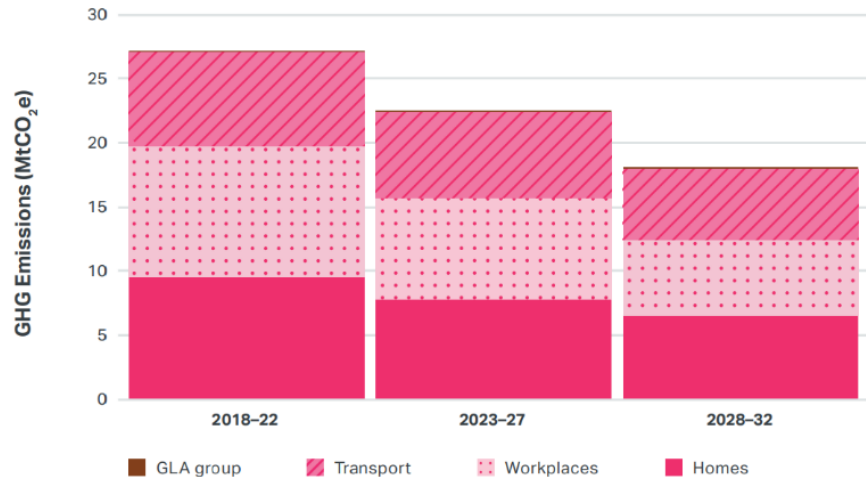


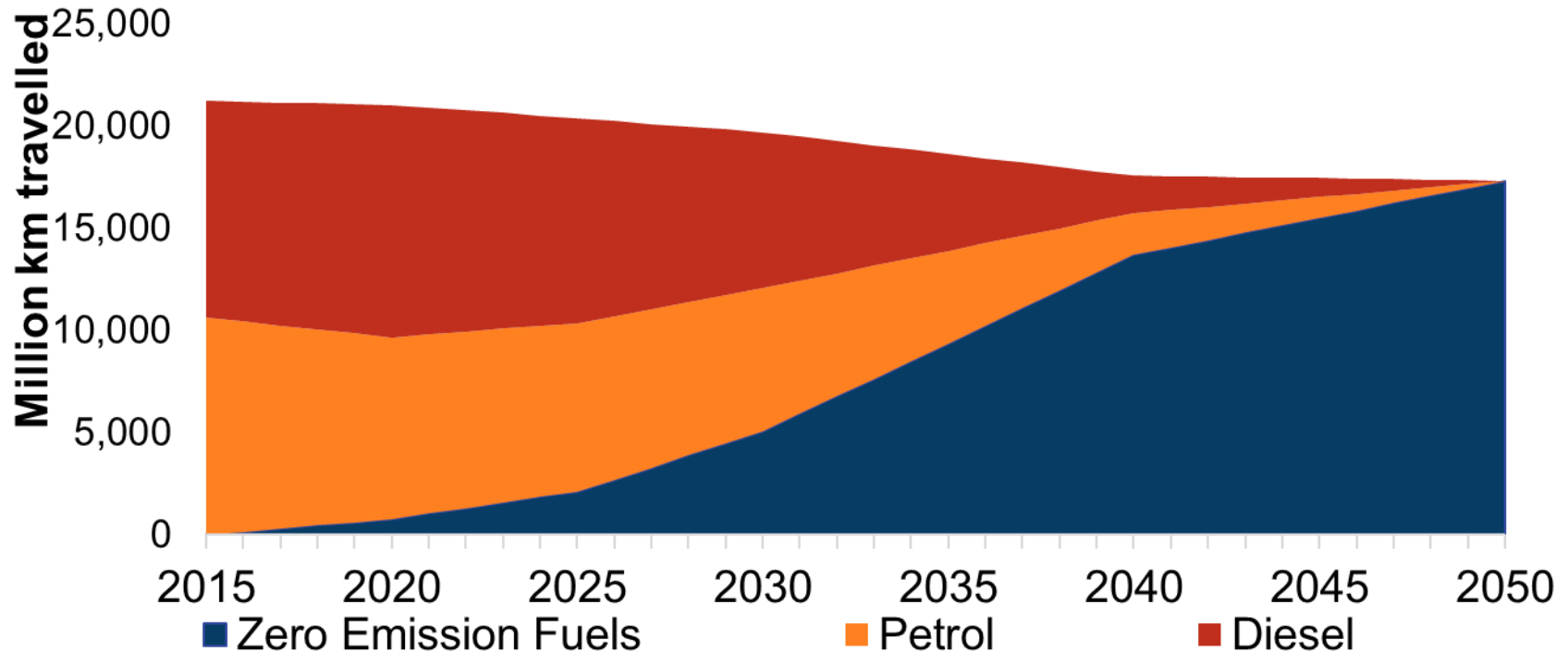
Figure 2: London's carbon budgets



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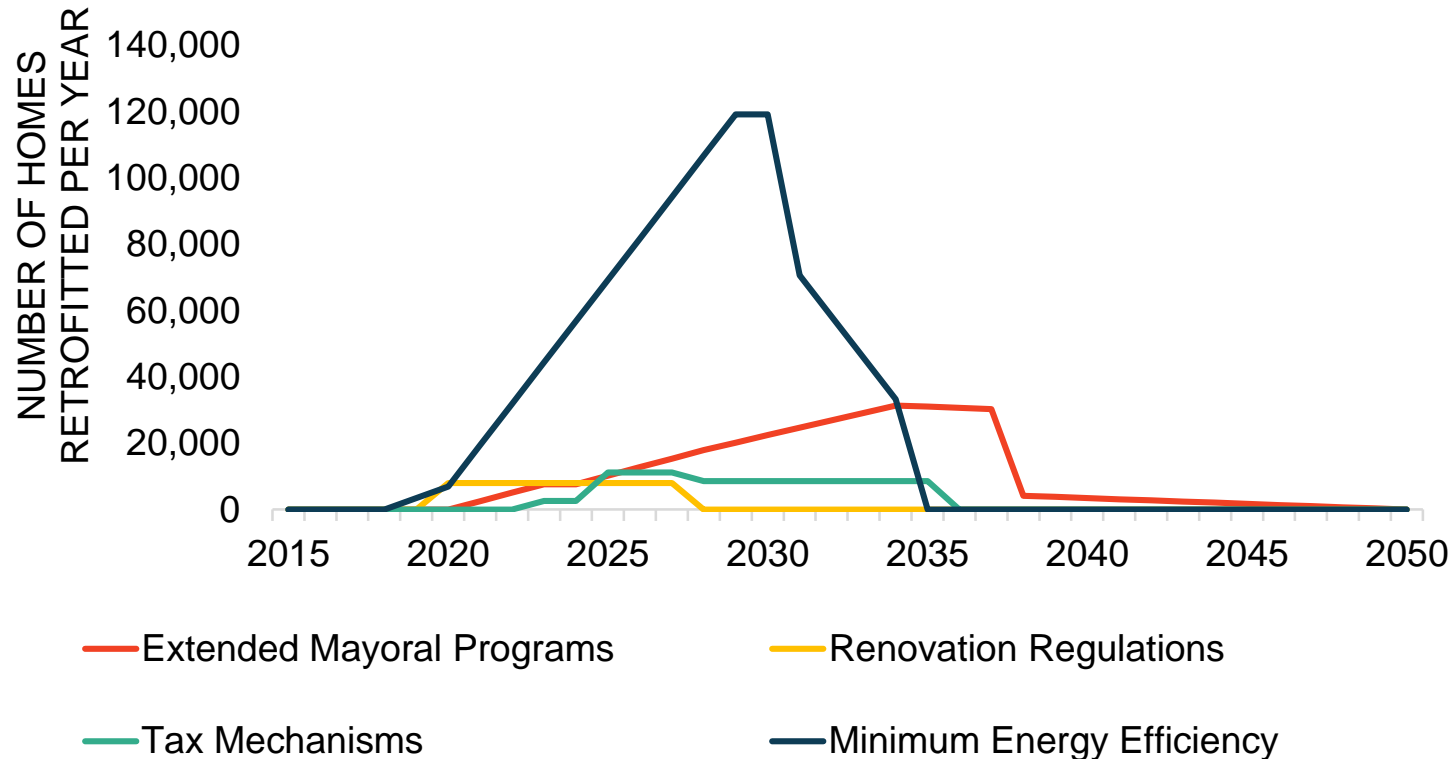
Mayor's Transport Strategy outlines the journey to zero emission transport

- 1) Reduce vehicle journeys to 2050 through making public and active transport accessible and affordable alternatives
- 2) These journeys should be made by zero emissions fuels – split between battery electric and hydrogen vehicles

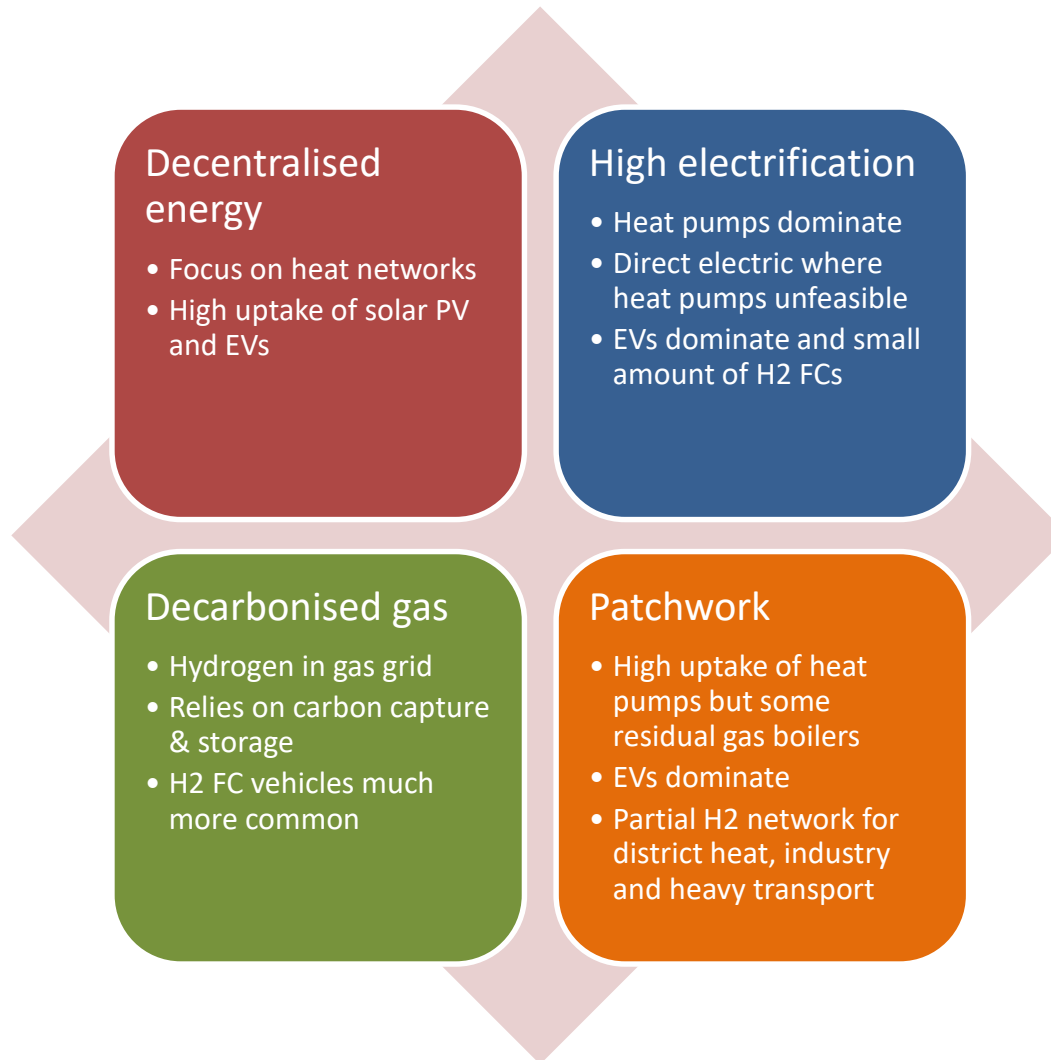


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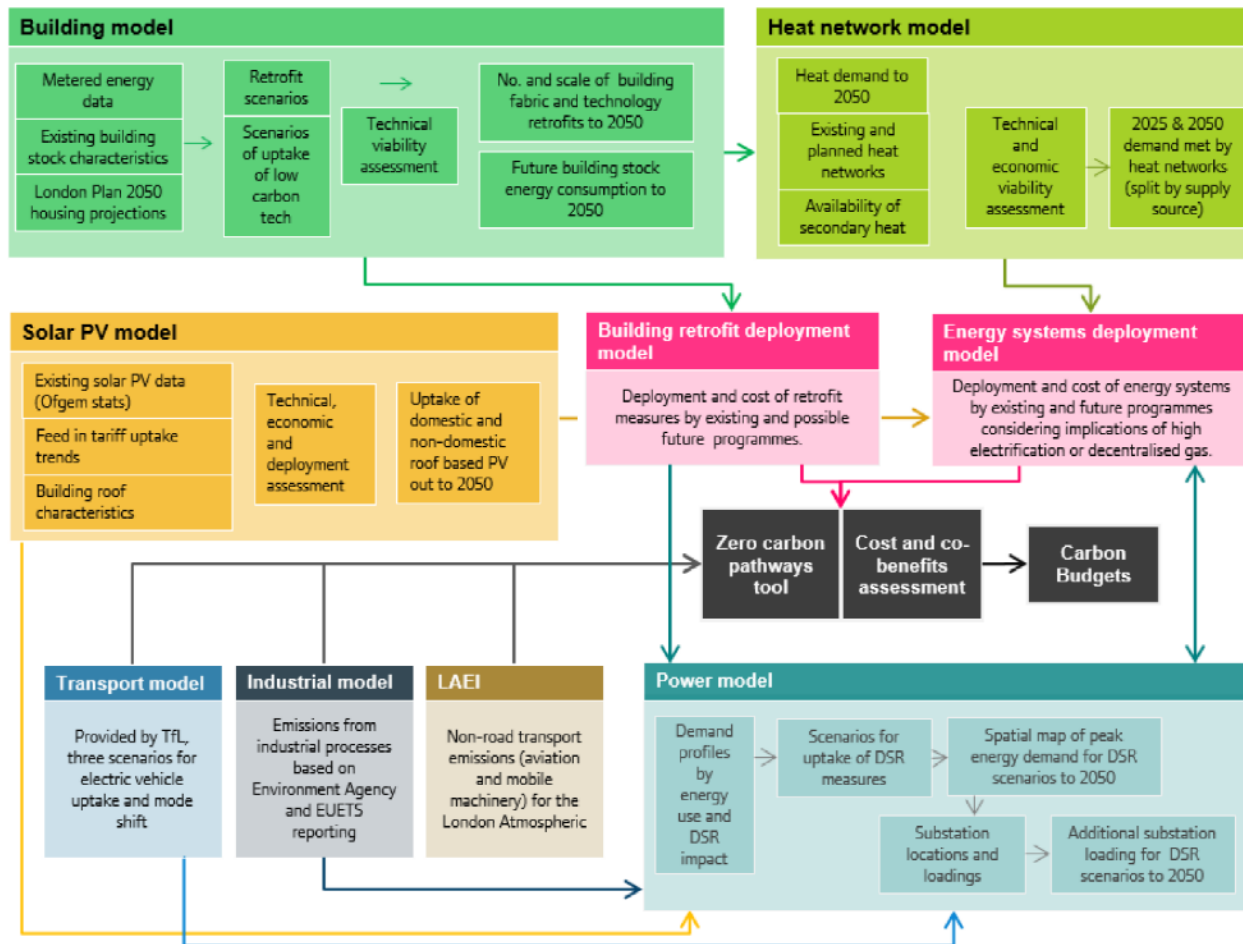
Modelling for the Environment Strategy explored what energy efficiency policies would be needed



Four energy supply and technology scenarios for achieving net zero carbon

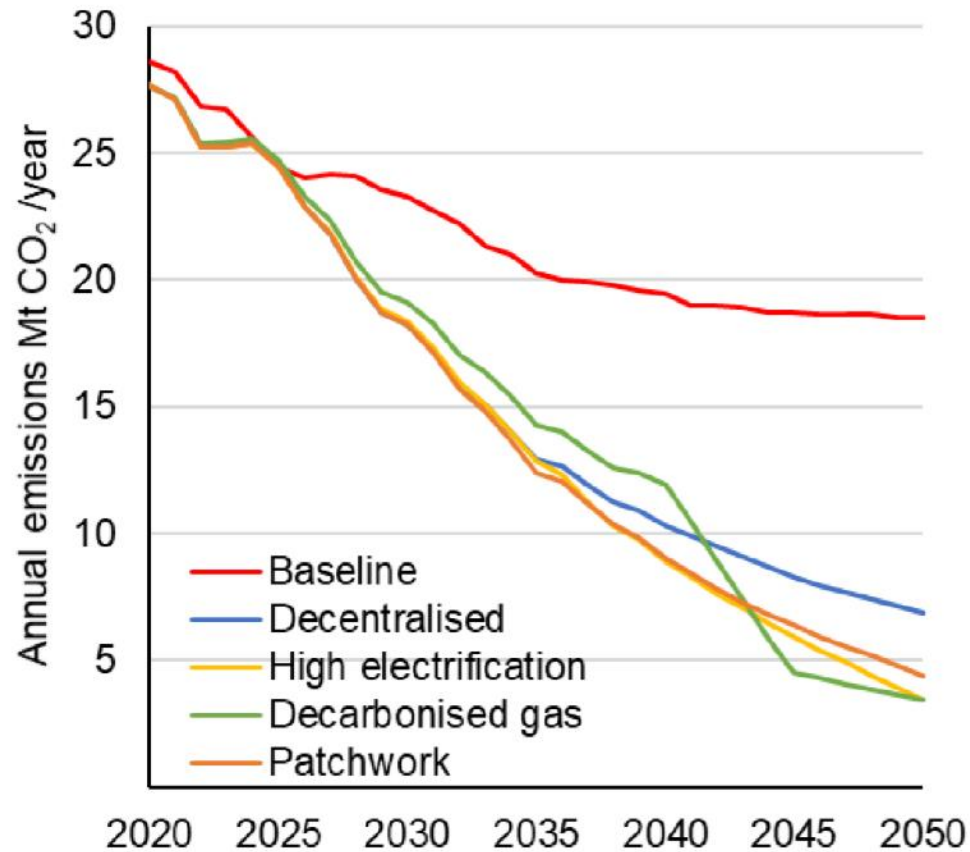


A number of other models feed in – e.g. heat networks, solar, power



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All four scenarios get to ~90% emissions reduction by 2050



Regardless of the scenario, there are common “no regrets” actions:

- Energy efficiency measures to bring at least 70% buildings to EPC C by 2030
- Roll-out of heat networks: 70,000 homes by 2025
- Increase in heat pump deployment: 300,000 buildings by 2025
- All new buildings supplied by individual heat pumps or district heating by 2020
- Co-ordinate roll-out of EV charge points supporting 10% of passenger vehicles by 2025
- Quality assurance programmes, information campaigns and investment in supply chains and infrastructure
- Trials of hydrogen for heating and CCS development outside London

Tools for delivering on commitments

Policy

- 1) Collect and spend carbon offset funds
- 2) Minimum Energy Efficiency Standards – enforce, join calls to strengthen
- 3) Fossil fuel divestment / clean investment
- 4) London Plan – zero carbon new developments

Programmes & funds

- 1) Solar Together London – 624 homes, ~35% cost reduction, 15 boroughs, Ph 3
- 2) Warmer Homes Fund – energy efficiency measures in 1,100 fuel poor homes
- 3) RE:FIT – public sector energy efficiency savings over 2700 ktonnes CO₂/yr
- 4) RE:NEW – 26,800 homes retrofitted/in contract
- 5) DEEP – 28 projects, plan/build low and zero C district heating and solar PV
- 6) £400k London Community Energy Fund – 31 projects so far. Ph 3 in progress.
- 7) 6 Smart and flexible demonstration projects – e.g. FlexLondon, Home Response, E-flex: how to store/use/integrate flexible energy systems to decarbonise quicker, cheaper and with less disruption
- 8) Mayor's Energy Efficiency Fund – low carbon finance available to public sector

Tools for delivering on commitments

Tools & Reports

- 1) Zero Carbon Pathway Tool – borough level pathways for net zero by 2050
<https://data.london.gov.uk/dataset/london-s-zero-carbon-pathways-tool>
- 2) New London Heat map
<https://www.london.gov.uk/what-we-do/environment/energy/london-heat-map>
- 3) London Building Stock Model - forthcoming
- 4) London Solar Opportunity Map - forthcoming
- 5) Heat pump retrofit report – going out to tender this week
- 6) Quick wins – simple building checklist
https://www.london.gov.uk/sites/default/files/quick_wins_to_reduce_building_energy_consumption.pdf

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Q&A?

