NEIGHBOURHOODS OF THE FUTURE

BUROHAPPOLD ENGINEERING

09 July 2019

TREVOR KEELING

'Associate in Sustainability team with over 12 years' experience designing for people and planet'

- In depth experience of Sustainability requirements for London and the World
- Leading Wellbeing focus group
- Policy work understanding implications of future changes



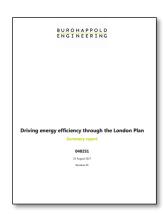
Residential buildings

Managing sustainability during design and construction



Commercial buildings

Leading design for wellbeing and sustainability in offices and public realm



Policy Work

Climate Change Strategy for London Borough of Waltham Forest

UK AND LONDON POLICY TIMELINE

2030 - First low carbon Hydrogen clusters 2015 – 5p plastic bag charge introduced 2020 – Ban on plastic straws, drink with carbon Capture and Storage stirrers and cotton buds operational 2016 - Wind power overtakes Coal power 2022 - Peak gas fired power generation 2035 - Doubling of renewable energy in the UK Grid supply in the UK electricity grid 2018 - Ban on microbeads in cosmetics 2023 - First year without Coal fired 2040 - Only Zero Emission ready and personal care products power stations Vehicles sold as new 2050 - Fliminate avoidable waste of all kinds 2018 - Minimum energy efficiency 2025 - No gas boilers to be installed in performance standards for all rented new homes 2050 - 12 millions homes retrofit; 6 million cavity properties walls, 6 million solid walls and 21,000 loft insulation 2030 – Decision point for UK wide role out of measures 2019 - Carbon factor of electric grid heat pump /electrification or Hydrogen for 2050 – Afforestation target of 750,000 million averaged lower than natural gas buildings hectares additional trees Now 2050 – All 3.2 Million homes across 2030 - 1GW solar PV installations with 15% of London's London to be retrofit energy demand met by renewable and district energy 2019 - The Ultra Low Emissions Zone (ULEZ) came into force 2050 – 2GW solar PV installations Mid-late 2020s – Insulate all remaining cavity walls 2050 - Increase in area of urban forest by 10% 2018 - 139,000 homes across London and lofts retrofit through the RE:NEW scheme 2041 – capacity of rail based services across London to (since 2009) 2026 - Zero biodegradable or recyclable waste to be increased by at least 80% landfill & 100% London's waste should be 2016 - Introduction of Zero Carbon 2037 – all TfL buses to be zero emission Homes Policy, requiring carbon offsetting managed within London for new developments 2033 – all taxis and private hire vehicles to be zero 2021 – ULEZ expanded to inner London for light emission capable vehicles 2015 - 10% of houses in London pop. 2030 - 1 million homes to be retrofit across London living in fuel poverty 2020 - 50% of Construction, Demolition and 2030 – all newly registered road vehicles driven in London to be Excavation waste to be recycled as aggregate for zero emission re-use in London



THE FUTURE IS NOT A RESULT OF TECHNOLOGY ALONE





STREETS WITHOUT CARS WILL PROVIDE MORE SPACE AND HAVE LESS AIR AND NOISE POLLUTION



Marlbrough Road 1952



Marlbrough road today

Natural driveways to conserve bees and nature

Less cars will mean you can play in the streets

Less traffic means greater energy independence. The UK relies heavily on oil, gas and coal from Russia and the Middle East.

THE FUTURE OF CAR PARKING

Hackney



San Francisco



THE FUTURE OF STREETS

Hong Kong

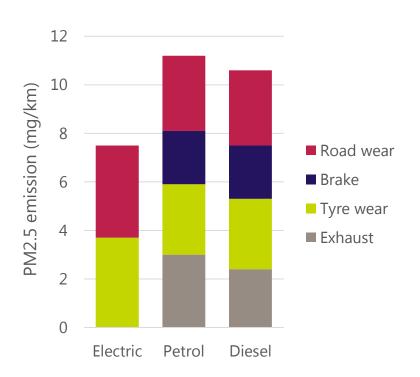
Barcelona



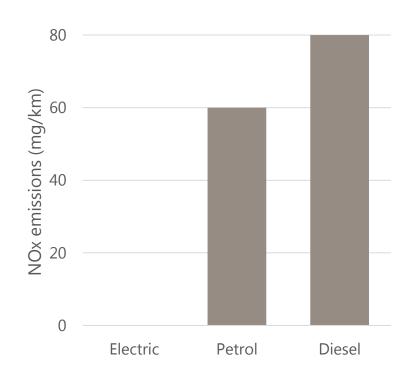


REDUCED AIR POLLUTION FROM ELECTRIC VEHICLES

Particulate matter



NOx emissions



Trimmers 2016



POTENTIAL TO NATURALLY VENTILATE

Kentish Town road

Modern fully sealed office





CHANGING DRESS CODES





London today and 150 years ago





South California today and 500 years ago

BUROHAPPOLD ENGINEERING

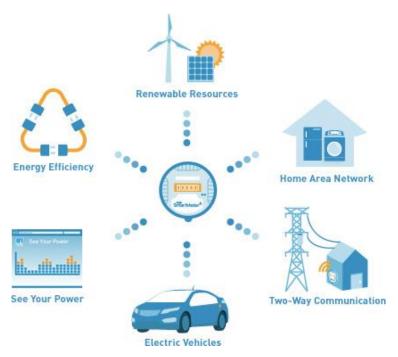


THE INCREASING ELECTRIFICATION OF TRANSPORT AND POSSIBLY HEAT

Vehicle charging infrastructure



Smart grids that share power



NEW TYPES OF SKILLS AND JOBS

Vehicle mechanic / electrician

Trained energy efficiency installers





www.trustmark.org.uk

THREE ACTIONS FOR CAMDEN

- 1. Encourage the infrastructure that enables car sharing and electric vehicles;
- Don't install cooling in any council buildings and encourage relaxed clothing in summer and extra layers in winter;
- Encourage local businesses to plan for the risks and opportunities around climate change.