

Energy Efficiency in Buildings Sector

Andrea Heins

Chair of the World Energy Council Argentinian Committee

Humanising the Energy Transition



2D GLOBAL DRIVERS:
Diversification of supply
Development of new technologies
(incl. electrification)

3D GLOBAL DRIVERS:
Decarbonisation
Decentralisation
Digitalisation

4D GLOBAL DRIVERS:
Decarbonisation
Decentralisation
Digitalisation
Disruption-by-demand



Net Zero by 2050

The roadmap for buildings



75%



will increase globally the floor area between 2020 and 2050

equivalent to add the surface of Paris every week

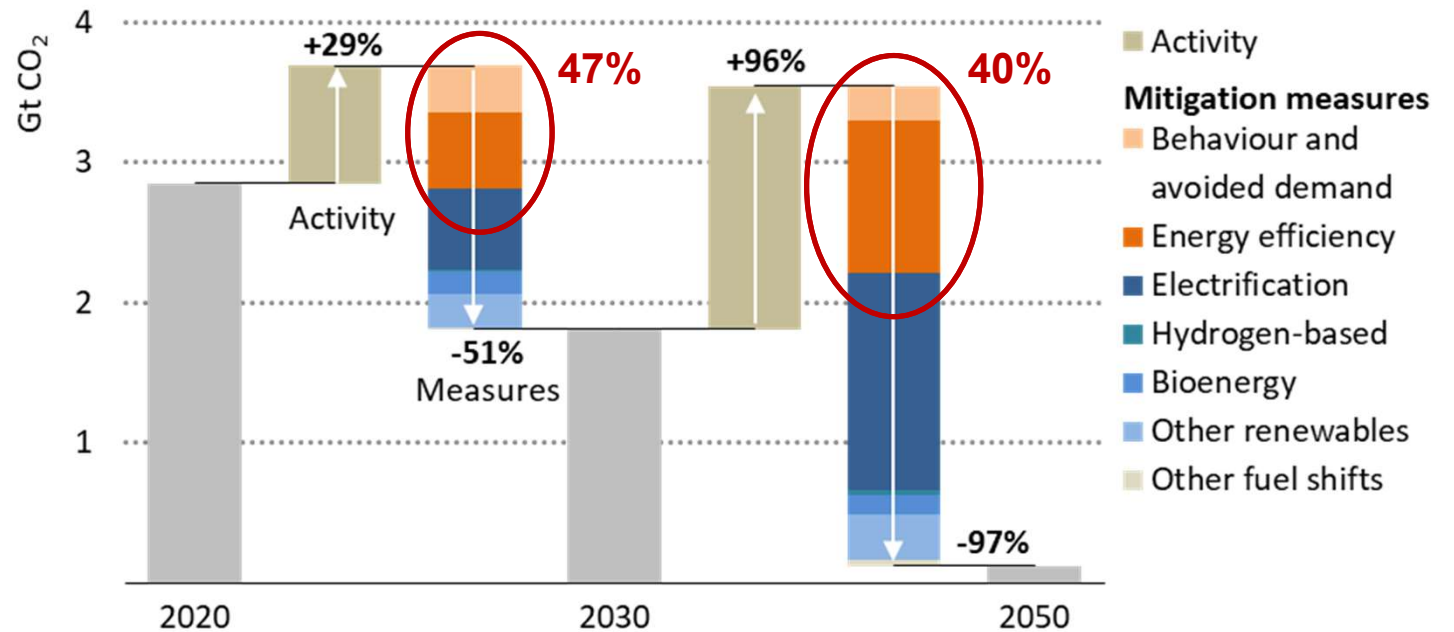
Air conditioners added in emerging market and developing economies:



650 million by 2030

2 billion by 2050

Global direct CO₂ emissions reductions by mitigation measures in buildings in the NZE

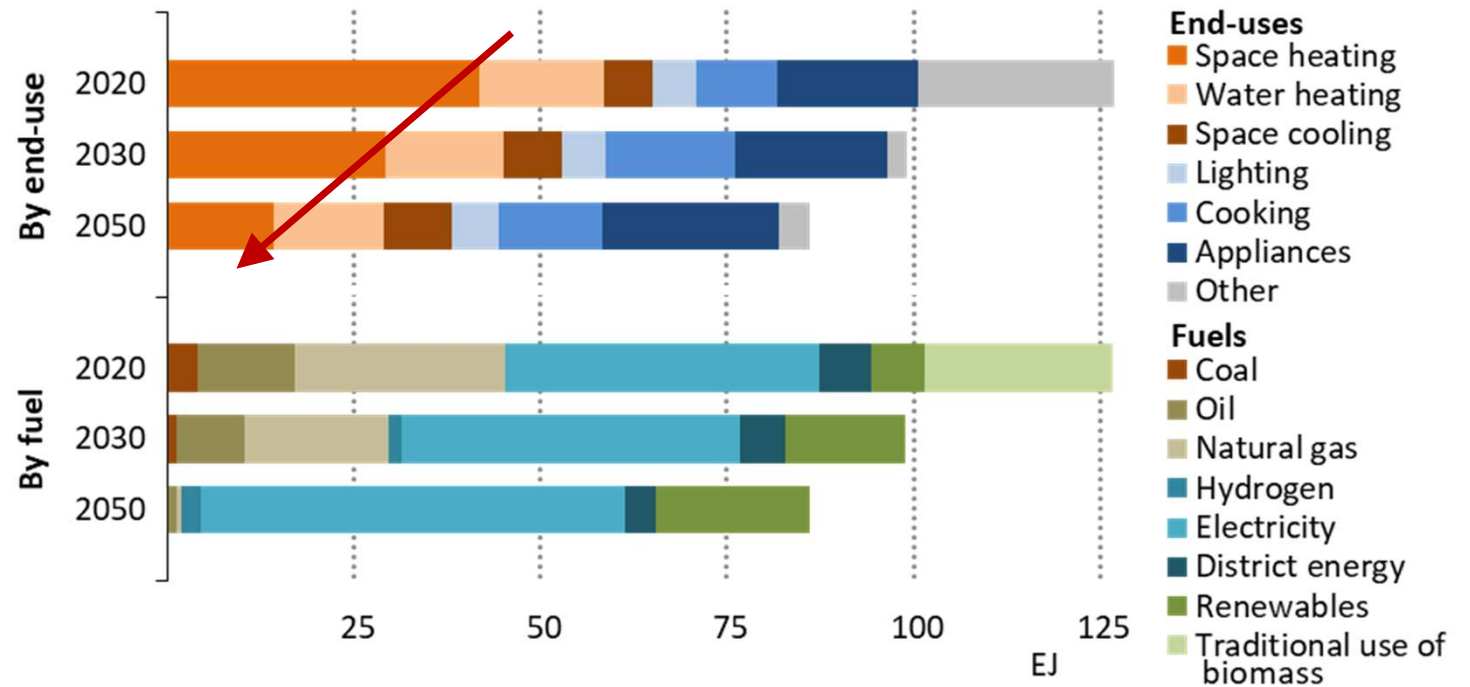


IEA. All rights reserved.

Electrification and energy efficiency account for nearly 70% of buildings-related emissions reductions through to 2050, followed by solar thermal, bioenergy and behaviour

Notes: Activity = change in energy service demand related to rising population, increased floor area and income per capita. Behaviour = change in energy service demand from user decisions, e.g. changing heating temperatures. Avoided demand = change in energy service demand from technology developments, e.g. digitalisation.

Global final Energy consumption by fuel and end-use application in buildings in the NZE



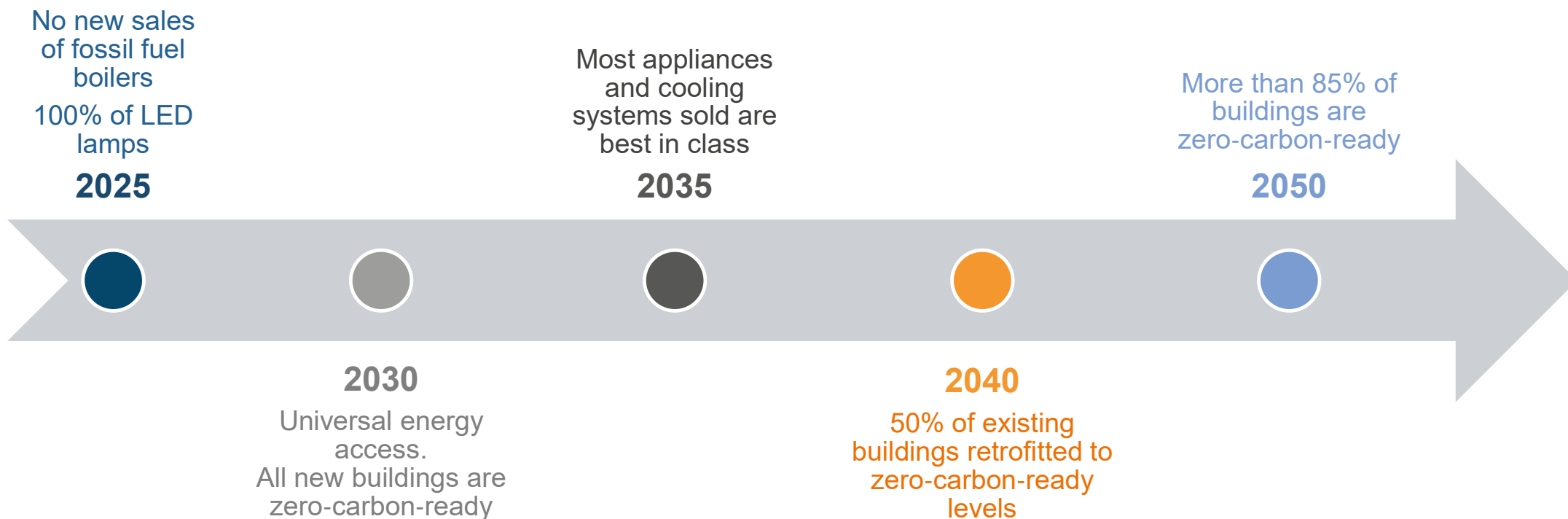
IEA. All rights reserved.

Fossil fuel use in the buildings sector declines by 96% and space heating energy needs by two-thirds to 2050, thanks mainly to energy efficiency gains

Note: Other includes desalination and traditional use of solid biomass which is not allocated to a specific end-use.

Net Zero by 2050

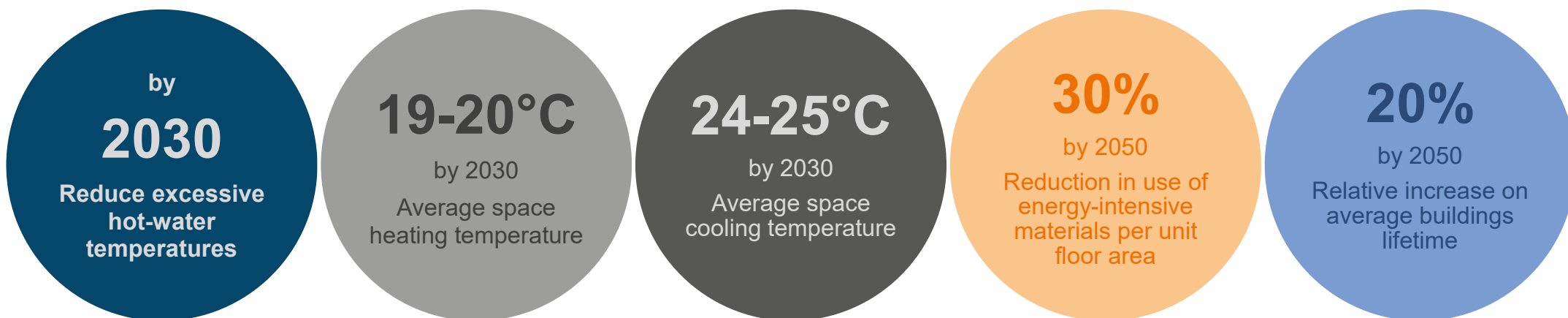
The roadmap for buildings – Key milestones



Net Zero by 2050

The role of behavioural changes

4% is the cumulative emissions reduction by 2050 provided by behavioural changes



Drivers and enablers



Laws and regulations (Building codes, MEPS, etc)

Financial and economic incentives for Energy efficiency and zero emissions investments

Labelling and public awareness campaigns to foster behaviour changes

Accelerate collaboration between governments, private sector and civil society

ENERGY FOR PEOPLE & PLANET



Thank you!