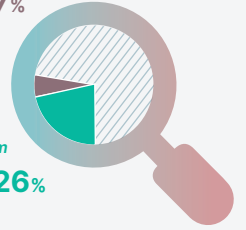


DECARBONISING THE ENERGY USED IN RESIDENTIAL AND COMMERCIAL BUILDINGS

GLOBAL CO₂ EMISSIONS TODAY

2.6 GtCO₂ embodied carbon from new buildings 7%

9.7 GtCO₂ emissions from 36,800 TWh of buildings energy use 26%



Achieving zero-carbon buildings: Electric, efficient and flexible

ANNUAL FINAL ENERGY CONSUMPTION USED IN BUILDINGS

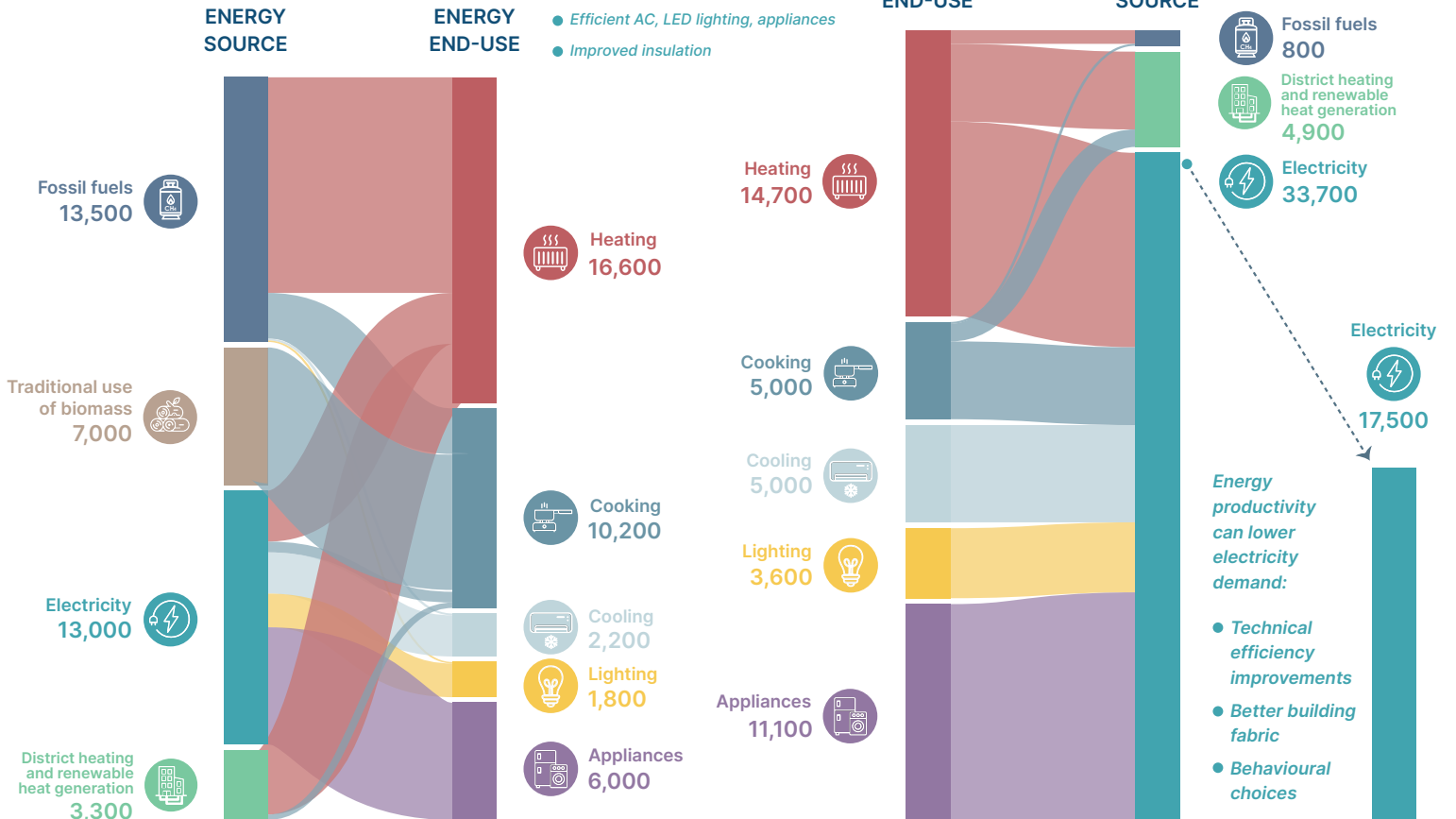
TWh

TODAY: 36,800 TWh

Net-zero building transition

2050: 40,000 TWh

- Heat pumps and electric cooking
- Electrification increases efficiency by 200-300%
- Efficient AC, LED lighting, appliances
- Improved insulation



- Energy productivity can lower electricity demand:
- Technical efficiency improvements
 - Better building fabric
 - Behavioural choices

Electric, efficient and flexible buildings: What will it look like?

Key technologies and features include:

