



Mobile enabling net zero buildings

gsma.com/climate

The buildings sector needs to reduce CO₂ emissions by

5.1 GIGATONNES

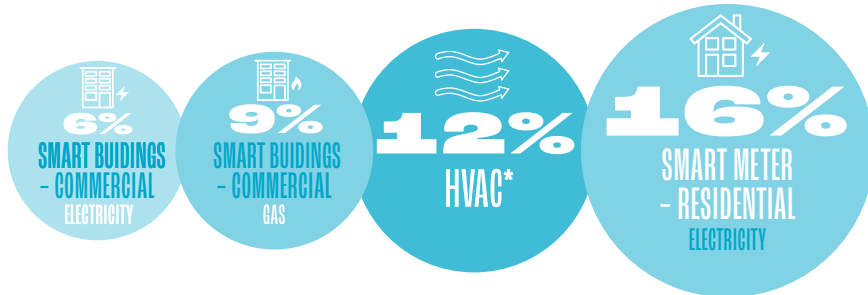
by 2030 to be on a path to net zero by **2050**

The GSMA forecast mobile connectivity can enable



...of the required reduction

this breaks down to...



across the buildings sector (by 2030)

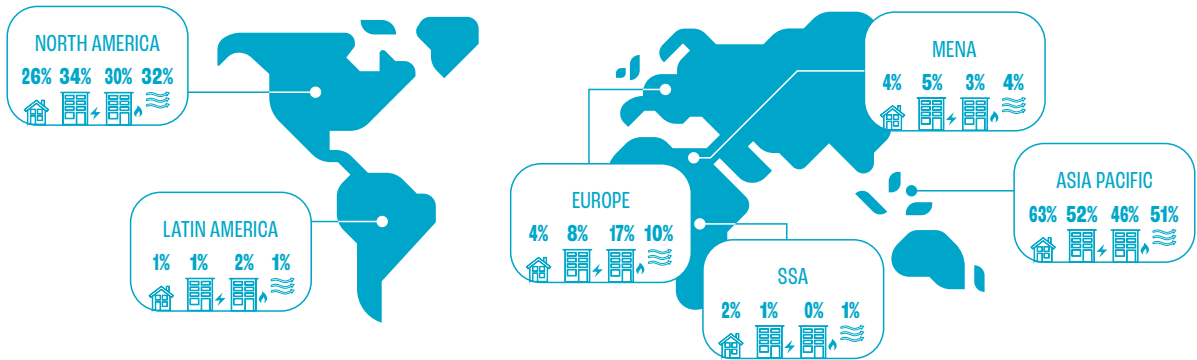
*Heating, ventilation and air conditioning systems (HVAC)

This is equal to **2.2 GIGATONNES** of CO₂ savings



Which is equal to heating **90 MILLION** homes over the same period.

Regional splits of CO₂ emission reductions, enabled by mobile connectivity, 2020-30



How does it all work:

RESIDENTIAL SMART METERS

Smart electricity meters track energy usage in real time, which customers can monitor. The energy savings relative to households without a connected meter is approx. 3-5% per year.

COMMERCIAL SMART METERS (ELECTRICITY)

AI can be used to analyse real time data stream and automatically modify electricity use based on occupancy, ambient external temperatures and weather events

HVAC

These systems monitor and regulate temperatures in larger buildings and some transport settings. They can draw on AI to run analytics and modify temperature in real time, and reuse cool external air without drawing electricity

COMMERCIAL SMART METERS (GAS)

Complements smart electricity meters and are connected to a central buildings energy management platform. AI can be used to analyse real time data stream and automatically modify electricity use.