

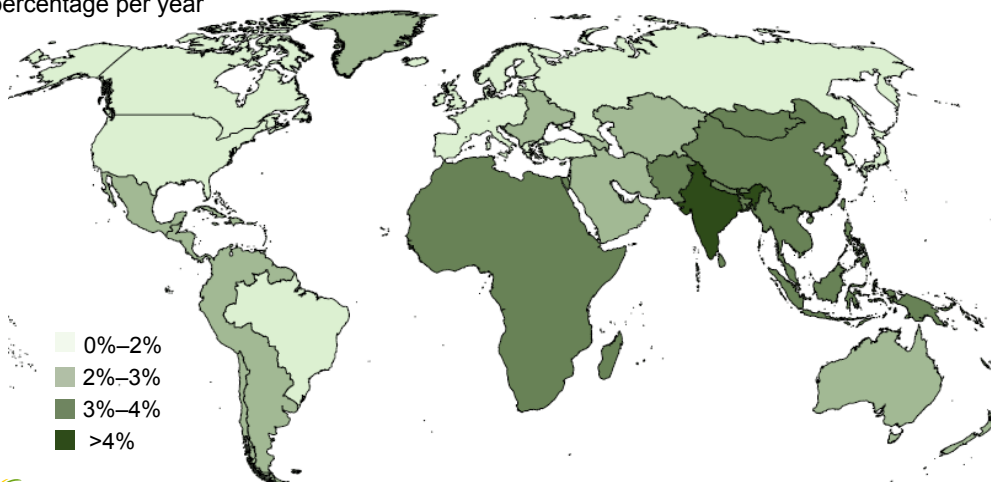


Manufacturing centers are shifting toward Africa and South Asia, especially India, resulting in energy consumption growth



Most economic growth happens in non-OECD countries, where GDP per person nearly triples from 2018 to 2050

Average annual percentage change in GDP (gross domestic product), 2018–2050
percentage per year

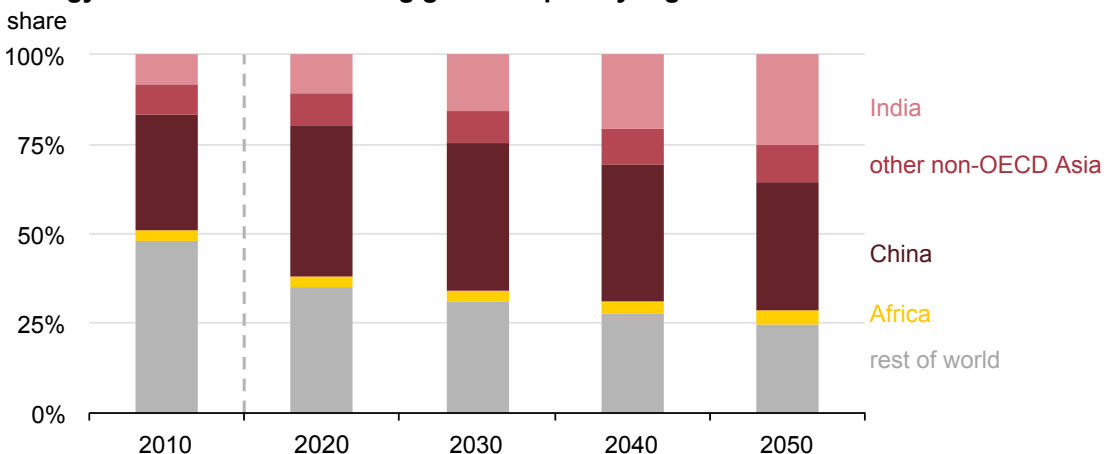


Source: U.S. Energy Information Administration, *International Energy Outlook 2019*



Most energy-intensive manufacturing shifts to non-OECD Asia and, increasingly, to India

Energy-intensive manufacturing gross output¹ by region



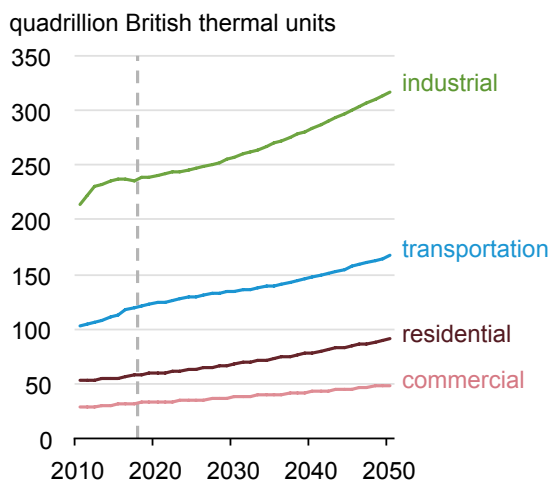
¹Measured in purchasing power parity

Source: U.S. Energy Information Administration, *International Energy Outlook 2019*



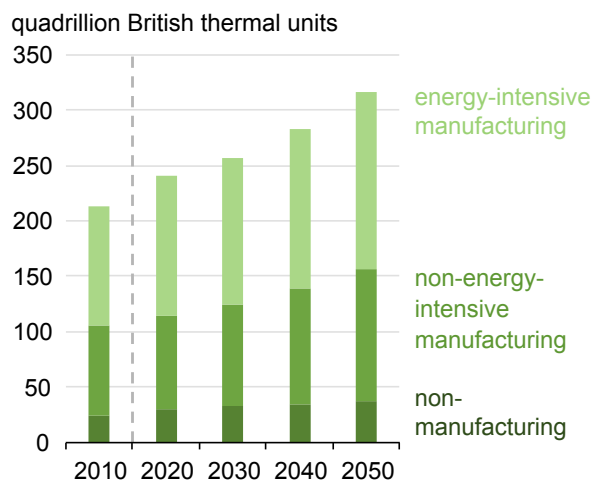
The industrial sector is the largest consumer of energy, and energy-intensive manufacturing is the largest component in the sector

End-use energy consumption by sector



Source: U.S. Energy Information Administration, *International Energy Outlook 2019*

Energy consumption by industrial subsector



Source: U.S. Energy Information Administration, *International Energy Outlook 2019*