A BETTER LIFE WITH A HEALTHY PLANET
PATHWAYS TO NET-ZERO EMISSIONS

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Fossil fuels remain in the energy system even after extensive electrification.

- Remote operations, e.g. mining
- Heavy transport
- Metallurgical industries
- Kiln processes
- Chemical industries
- Certain power generation applications
- Some home heating
Plausible emissions balance in a net-zero emissions world

**CO₂ equivalent of the fossil resources used**

- **-5.7** embedded in materials
- **+19.4** continuing use of oil, gas and coal
- **-6.9** CCS
- **-1.8** in biomaterials

**Remaining emissions**
- **+6.8**

**Negative emissions**
- **-6.8**

**CO₂ captured in 200 EJ biomass**
- **-21**
- **+3.5** re-emitted from biofuel
- **+10.7** re-emitted from bioconversion processes
Four interconnected systems to meet all energy needs and achieve net-zero emissions

Renewable energy for power generation

Bioenergy for power generation, synthetic fuels and chemicals

Carbon capture and storage

Fossil fuels for certain applications