

Growth in industry

The industry sector includes the manufacture of metals, minerals, and other chemicals. In 2007 industry was responsible for about 25% of total UK energy demand. In addition to emissions from the energy used, the sector also emitted 28 MtCO₂e directly from its processes. 36% of industrial energy demand was supplied by gas, 28% by electricity, and the rest by oil, coal, and combined heat and power.

In the 2050 Calculator the industrial sector's future energy use is determined by two factors: industry growth (described here) and industry energy intensity (described on another page). The changes here represent different choices rather than an increasing scale of effort. They cannot be compared with the Levels 1-4 in other sectors and have therefore been labelled as Trajectories A-C instead.

Trajectory A

Trajectory A assumes that UK industry will expand, because of the need to manufacture new low-carbon technologies, and low-carbon replacements for existing goods and machinery. Assuming a growth rate of 1.5% growth rate (similar to the UK's historical rate in the 1980s and 1990s) industrial output will double between 2007 and 2050.

Trajectory B

Trajectory B assumes that the growth trend of 1970 to 2008 continues, leading to industrial output increasing by 30% to 2050.

Trajectory C

Trajectory C assumes the UK's economy shifts from industry into other sectors, leading to industrial output declining by 30-40% between 2007 and 2050.

Interaction with other choices

The size of the industrial sector affects the need for freight, but this is not handled automatically by the Calculator – you have to choose the setting for each independently.



Figure 1. A UK cement processing plant. Currently about 30% of all industrial process emissions come from cement making. This makes cement this the largest emitting industrial sector, followed by steel making. Photo © agg-net.com

