

Fossil liquid fuels: production capacity of CTL

In 2006 the total coal-to-liquid (CTL) production capacity in South Africa was approximately 125,000 barrels of oil equivalent¹ (BOE) per day, or roughly 246 petajoules (PJ) per annum. Of the total output, 93% is used for liquid fuels.²

Level 1

Level 1 assumes that existing CTL capacity is maintained until 2050 and that investment leads to new installed capacity of 40,000 barrels per day by 2030. This increases doubles the current CTL capacity.

Level 2

Level 2 assumes that existing CTL capacity is maintained until 2050, and that a new CTL plant with capacity of an additional 80,000 BOE per day is installed by 2020.

Level 3

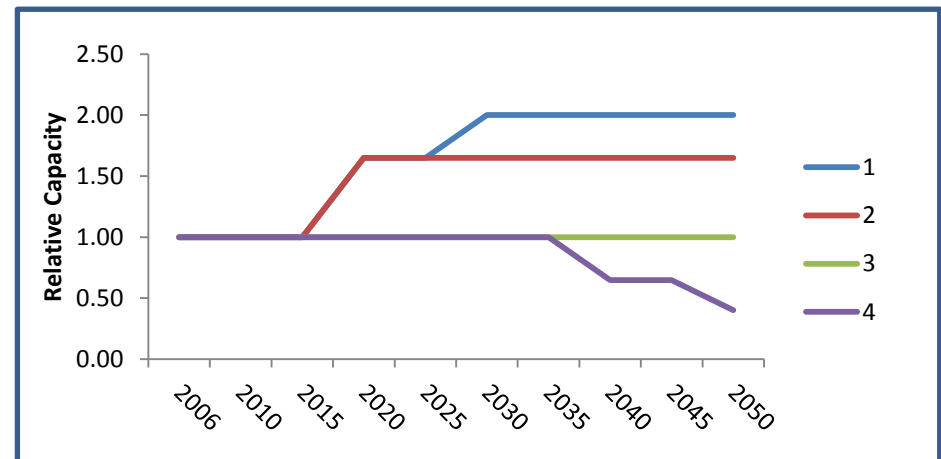
Level 3 assumes that retired CTL plants and equipment are refurbished or replaced so that the existing CTL capacity is maintained until 2050.

Level 4

Level 4 assumes that no new CTL plants are built and existing facilities are retired at the end of their predicted lifespan³. Capacity falls from 125 000 BOE per day now to 80 000 BOE per day in 2040 and to 50 000 BOE per day by 2050.



CTL facility at Secunda.
Source: www.scienceinafrica.co.za



CTL capacity (in PJ) for Levels 1 to 4

¹ Where a BOE = 5.7 GigaJoules (IEA)

² Energy Research Centre. 2013. Assumptions and Methodologies in the South African Times (SATIM) energy model. Available: <http://www.erc.uct.ac.za/Research/otherdocs/satim/sAtiM%20Methodology%20v1.0.pdf> Accessed 20 March 2014.

³ Adapted from *Prospects of Carbon Capture and Storage Technologies (CCS) in Emerging Economies* (Wuppertal Institute for Climate, Environment and Energy, 2012)