Fossil liquid fuels: production capacity of crude oil refineries

In 2006 South Africa's the crude oil refinery capacity was approximately 513,000 barrels per day (bpd), equivalent to approximately 1,000 petajoules per annum.[1]

Level 1

Level 1 assumes that dependency on crude oil products grows and that refining capacity is installed to reach 360,000 bpd by 2025 and that an additional plant with capacity of 180,000 bpd becomes operational by 2035. Crude oil capacity is thus doubled from now to 2035.

Level 2

Level 2 assumes that additional crude oil refining capacity of 360,000 bpd is commissioned and becomes operational by 2025. This expands capacity by around 70%. These refining plants are maintained and after 2025 there is no further expansion in capacity.

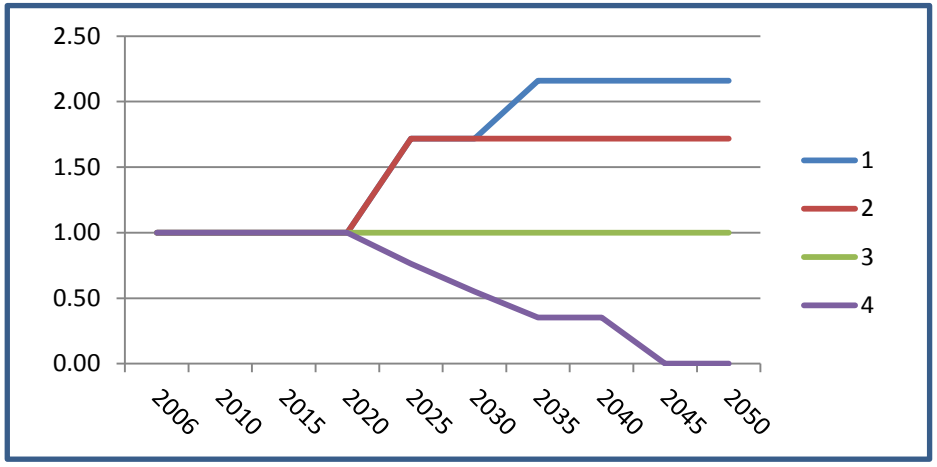
Level 3

Level 3 assumes that existing crude oil refining capacity is maintained and is not expanded from now until 2050.

***Level* 4**

Level 4 assumes existing crude oil refineries are retired at the end of their expected lifespan and that by 2050 there are no crude oil refineries in the country.

Oil rigs extracting petroleum
Source: www.theguardian.com



Changes in crude oil refining capacity relative to now in Levels 1 to 4.

[1] 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.