

Energy efficiency

THE LEX COLUMN

Staring at the sun can blind you. Scientists are currently getting excited (again) about generating energy from atomic fusion: the process that powers the stars. The only wrinkle is safely maintaining a nuclear reaction at 100m °C - several times hotter than the sun's core - while getting out more energy than you put in.

Then again, today's electricity industry is not exactly efficient; more than half the energy that goes into power plants never reaches our sockets. Tackling such wastage offers a more realistic solution to tight energy supplies and pollution than recreating the sun on earth. In a

recent study, McKinsey & Co says improved energy productivity on the part of producers and consumers could cut annual demand growth between 2003 and 2020 from 2.2 per cent to less than 1 per cent.

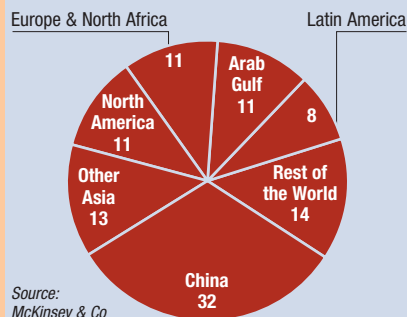
China alone will account for almost a third of the world's incremental energy demand by 2020. Existing technology could cut this: using modern coal-fired plants and better home insulation would erase 15 per cent of China's extra demand. Smarter appliances would also help. So while myriad green energy start-ups may grab today's headlines, the likes of General Electric, Siemens and Philips would play just as important a role.

This would revolutionise the energy outlook. Total demand for all types of energy in 2020, relative to current forecasts, would be lowered by 24 per cent. To put that in perspective, it is equivalent to 76m barrels of oil a day - not far short of current oil consumption levels.

Oil majors should be concerned but perhaps need not panic altogether. To an extent, falling energy intensity abets higher aggregate demand and oil's share of the energy mix would probably rise. Many fiscal regimes distort prices and foster profligacy. Above all, past crises are forgotten all too quickly; energy productivity gains in the 1990s were only two-thirds those of the 1980s, when memories of the oil shocks were still fresh.

Sources of incremental energy demand*

2003-2020 (% by region)



Source: McKinsey & Co

* Base case without extra efficiencies. Demand increases from 222 to 321 million barrels of oil equivalent per day