

NEAR THE PEAK

Oil, some minerals and rare earths are depleting fast

H3	ACT	PLAN	TRACK	PARK	OPP	THR	NEU
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There are many substances that are being used up faster than they can be replenished naturally. There is clearly a limit as to how long such a situation can continue. The planet has finite resources and a growing economy and expanding population are increasing demand.

Meeting the needs of [more than 7.6 billion people](#) (and more than 2 billion more by 2050) has transformed land use and generated unprecedented levels of pollution, affecting biodiversity, forests, wetlands, water bodies, soils and air quality. A measure of the accelerating use of resources is calculated in [Earth Overshoot Day](#) - the date when we use our resource budget for the year - in 2020 it was August 22nd.

[Minerals](#), [fossil fuels](#), many rare earth metals, [fertile topsoil](#) and fresh water are all vulnerable to over-exploitation. While some substitution will occur and technologies will be developed to lessen these impacts, new ways to manage declining resources are urgently needed.

The 2020 edition of BP's [annual energy outlook](#) reveals – albeit indirectly – that global oil demand will not regain the levels seen last year. It adds that demand could soon fall rapidly in the face of stronger climate action – by at least 10% this decade and by as much as 50% over the next 20 years.

Rare earth minerals are naturally occurring resources, which cannot be recreated or replaced. There are five very [rare earth minerals used in technology we take for granted](#) today. They are tantalum, silver, lithium, gallium and indium. There is a growing industry in recycling these metals from old equipment - which preserves existing deposits and reduces the environmental impact of extraction.

ELECTRIC DREAMS

Renewable energy has come of age

H1	ACT	PLAN	TRACK	PARK	OPP	THR	NEU
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In 2020, 90% of the new installed power capacity worldwide was renewables. Shares in solar PV companies across the world have doubled in value in one year. 2021 is set to be a record year for installation of solar and wind in India, China, the EU, Middle East and Americas. Sustained policy support and reduction in technology costs is driving continued optimism in the industry - [with forecasts for rapid growth in solar and offshore wind through to 2025](#).

While renewables are predicted to overtake coal and gas in the production of electricity, fossil fuels remain dominant for transport and other fuels.

In the UK, [new government estimates](#) show that wind and large-scale solar plants will have significantly lower costs than gas over the next two decades - with the levelled cost of solar as low as £28 per MWh.

With production and installation costs falling rapidly, solar arrays on commercial buildings will provide electricity at about 5.5p per kWh, averaged over the 25 year life of the array. Investing in renewables can provide financial returns, reduce a business' carbon footprint and demonstrate climate commitments.

FURTHER READING

