

What is considered a CRM may need to be revisited

Minerals are the new oil



RESOURCE MANAGEMENT WEEK 2022

ENABLING SUSTAINABILITY PRINCIPLES IN RESOURCE



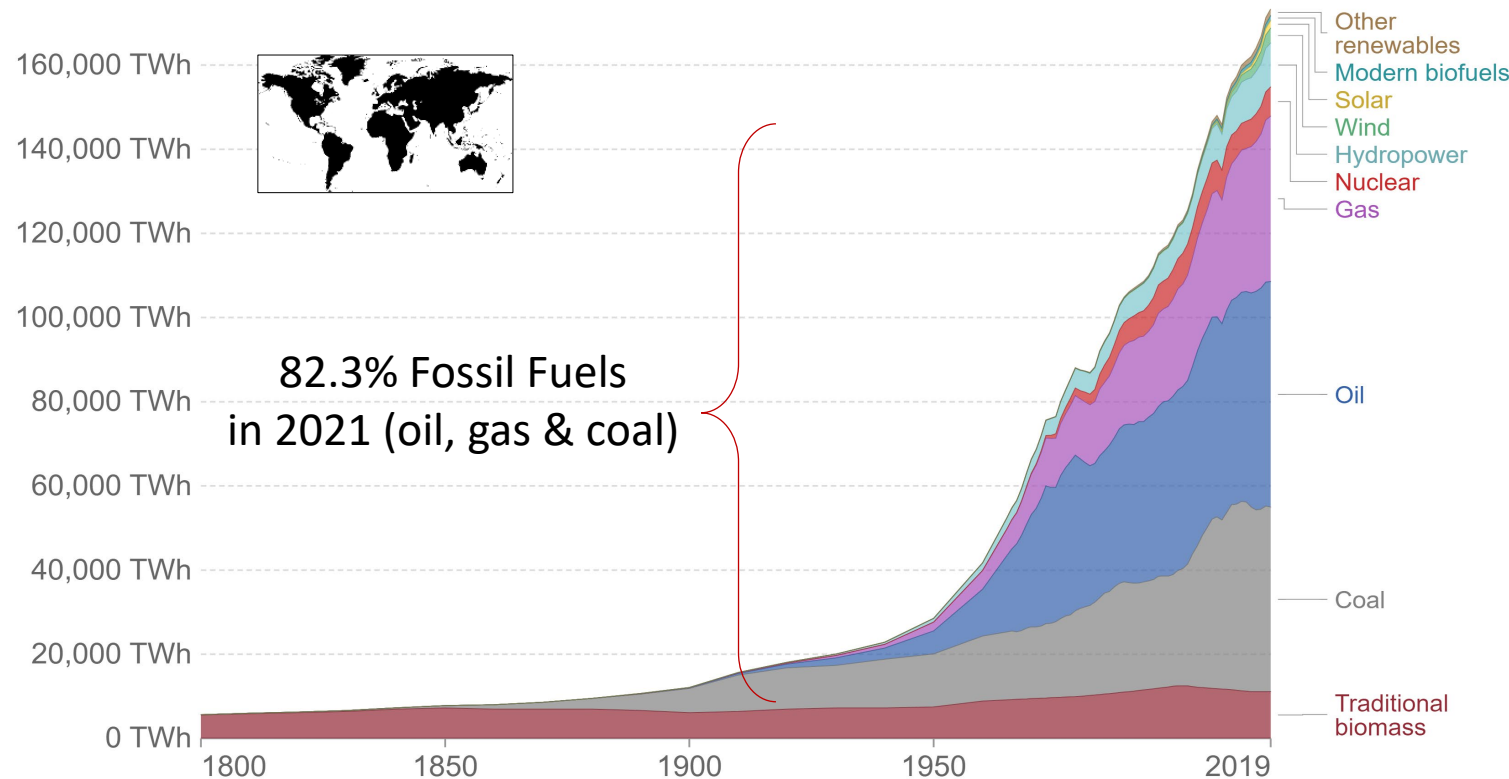
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The system is still dependent on fossil fuel energy

Global primary energy consumption by source

Primary energy is calculated based on the 'substitution method' which takes account of the inefficiencies in fossil fuel production by converting non-fossil energy into the energy inputs required if they had the same conversion losses as fossil fuels.

Our World in Data



Non-fossil fuel systems have a lower EROEI than oil, gas & coal

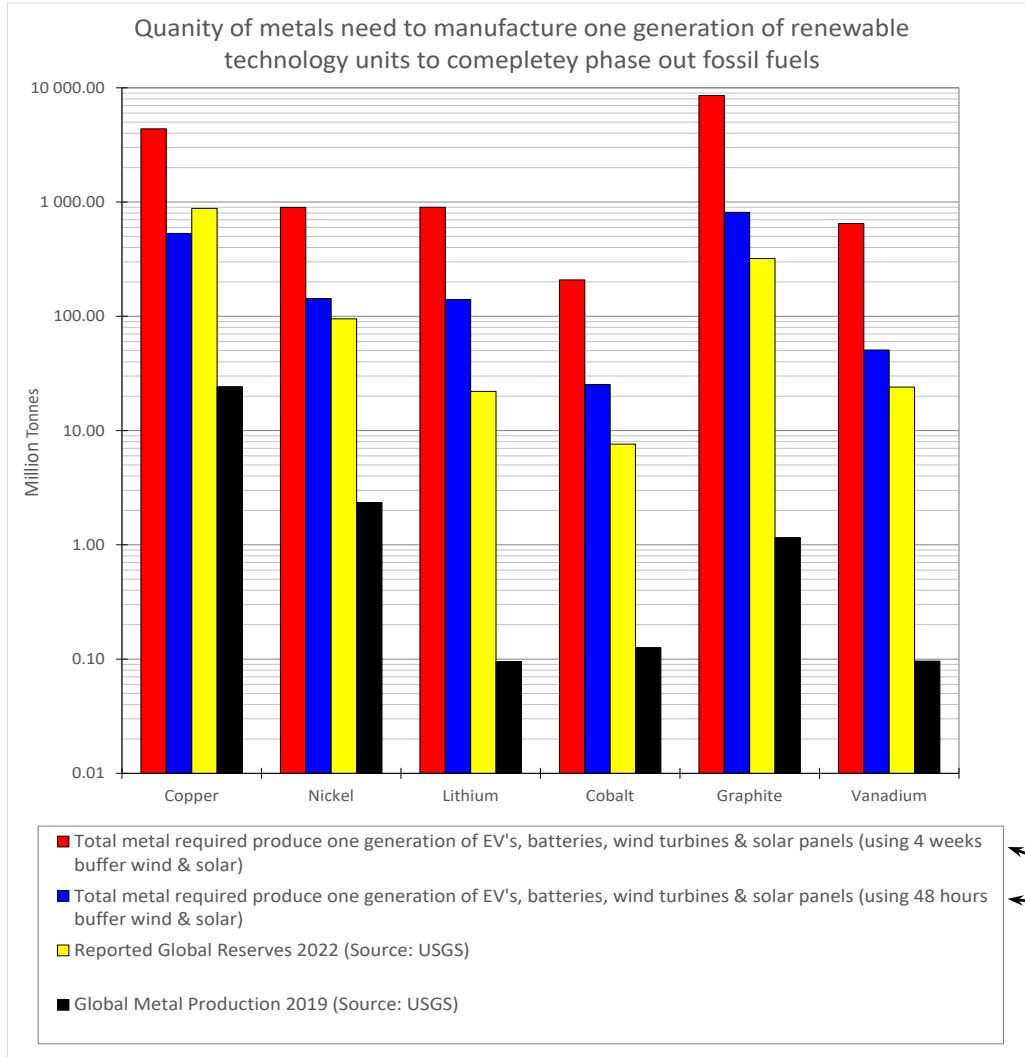
Non-fossil fuel mining will be more expensive and less effective

What is considered a viable mineral reserve could then be unviable, thus shrink in size

Source: Vaclav Smil (2017) & BP Statistical Review of World Energy

OurWorldInData.org/energy • CC BY

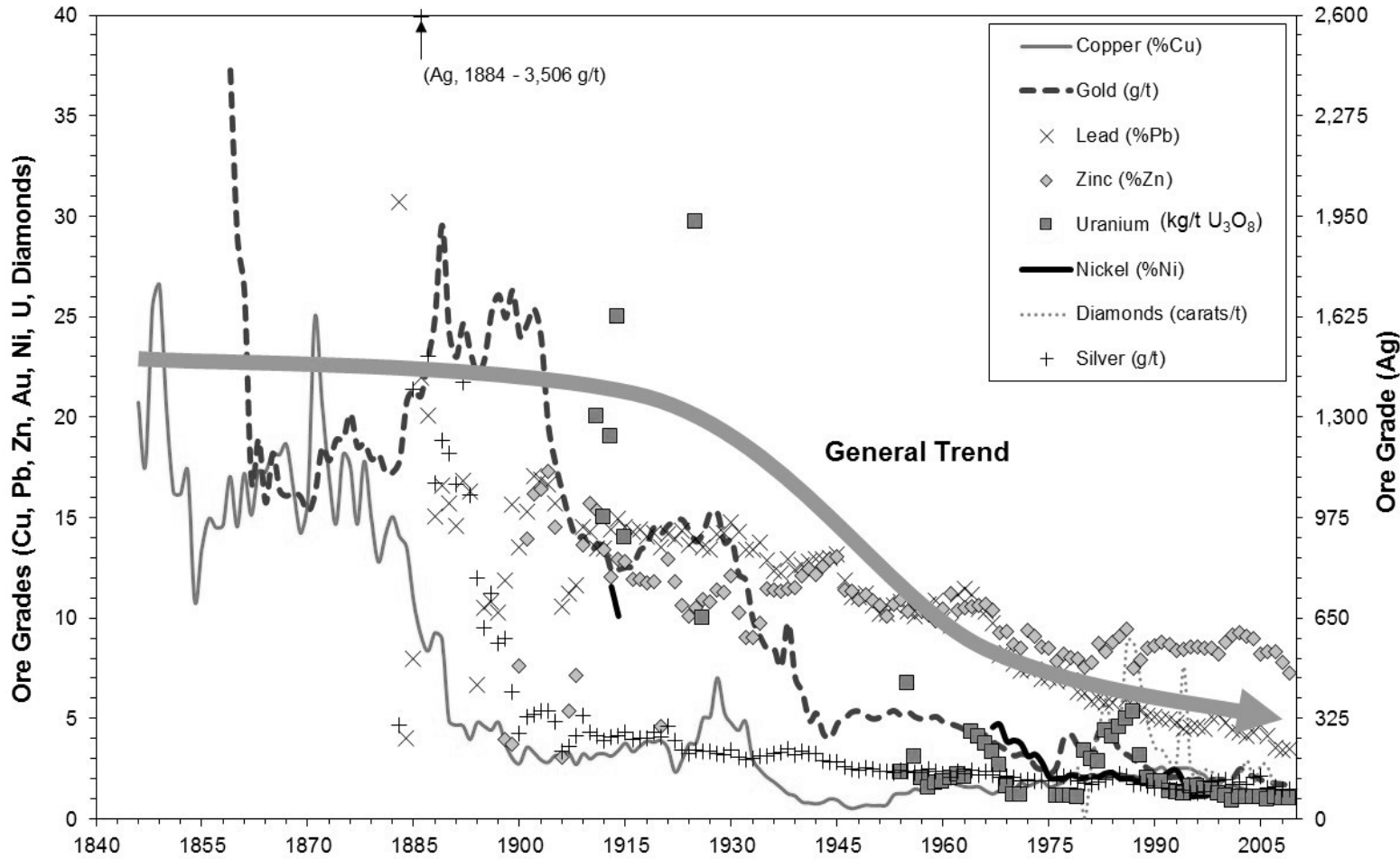
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- 0.7% of passenger cars were EV in 2020
- In 2018, renewables accounted for 4.05% of the global energy generation.
- What is not constructed yet, cannot be recycled
- The 1st generation at least must come from mining

Remember, this is for just the first generation of units. They will wear out in 10 to 25 years, after which they will need to be replaced

Metal grade in mining has been decreasing



Source: Mudd, G. (2007, Revised April 2009) The Sustainability of Mining in Australia - Key Production Trends and Their Environmental Implications for the Future, Department of Civil Engineering, Monash University and the Mineral Policy Institute

Thank you!

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