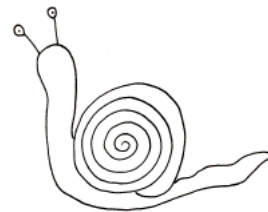
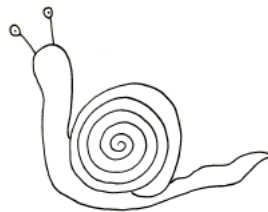
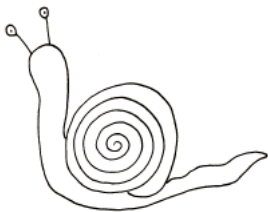


Techno-Hopium Will Kill Millions

Technology is not the Answer

a zine by
Melbourne Degrowth



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A zine by **Melbourne Degrowth** – degrowthnetwork@proton.me

The mainstream message

The message coming from mainstream parties and the mainstream media is this. We have a problem with burning fossil fuels. They promise to fix the problem by reducing fossil fuel use according to a timetable set by the IPCC. We are going to replace all our fossil fuel energy with renewables. The fossil fuels in every coal fired power plant, every petrol car, every plane and every ship. The growth economy will continue with renewables or green hydrogen.

In degrowth, we have a few issues with this strategy. One is that the program for reducing fossil fuels is not quick enough to save us from disastrous climate change. A second is that these are just promises. Promises that get wound back when their due date arrives. But more than that, we do not believe it is possible to replace 100 per cent of our use of fossil fuels with renewables. We need a strategy that starts now to drastically reduce energy use in the rich countries.

Without this we are living in a dream world. Continuing to use fossil fuels because we are waiting for the transition to become feasible. In other words, never. By delaying action now, we are lining ourselves up for chaos and catastrophe later. After the tipping points of climate change have made it hard to do anything to stop an accelerating disaster. With people dropping like flies from heat stress and crop growing lands turning into deserts. Doing nothing to solve these problems will cost millions of lives. The following are the key problems with the 100% renewables solution.

The minerals problem

To make this program work we would need every country in the world to get on board. With that, we would quickly run out of the minerals we would need. To replace every car with an EV. To supply electrical power using solar and wind. To use battery storage for cloudy days or days when there is no wind.

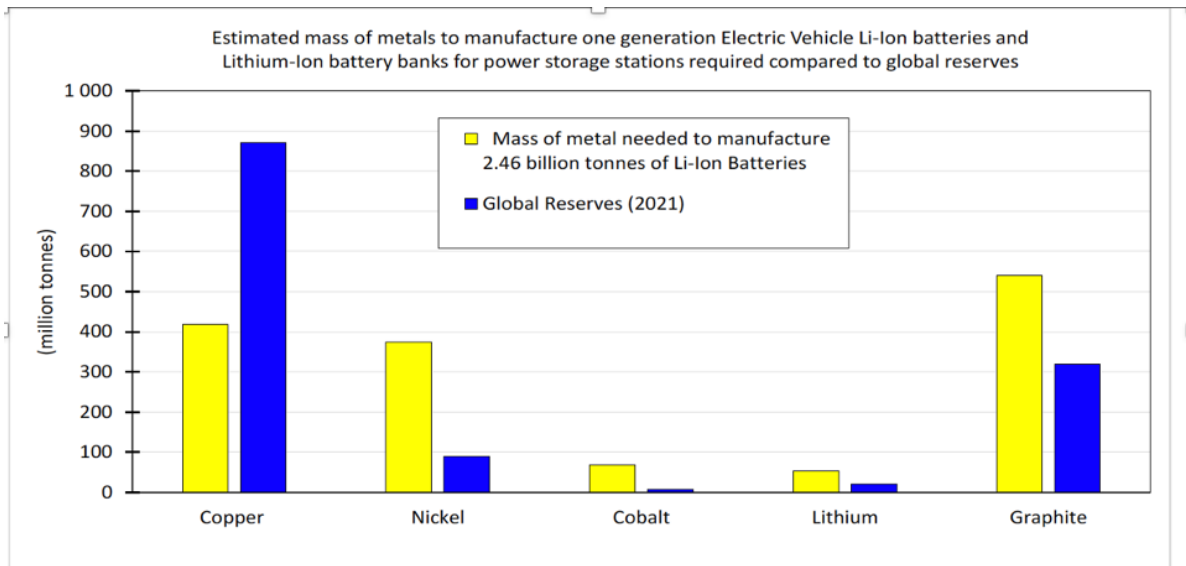


Figure 28. Estimated mass of metals to manufacture one generation Electric Vehicle Li-Ion batteries and Lithium-Ion battery banks for energy storage stations required compared to global reserves (Source: USGS Mineral Statistics for global reserves)

Let's look at copper, one of the minerals that is needed for any strategy of electrification with renewables. Global consumption of copper in 2019 was 24.5 million tonnes. Reserves are 870 million tonnes. In other words, even at current rates of extraction we only have 35.5 more years of copper supply. Of course, with a program of electrification our use of copper would ramp up, meaning a lot less than 30 years supply.

Here is a graph that shows reserves of minerals compared to amounts required for a 100% renewables transition.

The storage problem

Rosy accounts of the low costs of solar and wind power factor in batteries used for short term storage of power. What they do not

consider are periods of weeks and months when sunlight is not adequate, and the wind is also down. One storage solution is pumping water up to a dam with excess energy produced on good days. Then letting the water out to power hydro plants when we are short of energy. But in colder climates, these problems last for months. There are not enough suitable sites for dams. You would have to build large tanks to store water. At huge expense. Alternatively, you could use excess power to make green hydrogen. Burning it later to produce electricity. Another huge expense.

Difficult tasks for renewables

Some things that we rely on to run an affluent high-tech economy are hard to power with electricity and batteries. Air travel, steel making, concrete production, long distance haulage, earth moving. For some of these tasks, the batteries required are so heavy that they dwarf the weight of the things you are moving. Techno-hopium assumes that we will use biofuels or green hydrogen. But to even replace our aeroplane fuel with biofuels would require vast areas planted to fuel crops – and imply starvation for the poor. Green hydrogen is produced by using electric power. To supply this power with renewables, we would need even more solar panels and wind turbines. And even more minerals to construct these power sources. Gobbling up these scarce non-renewable resources.

Extractivism

The projects required to extract minerals for this renewables transition are already contested in many parts of the world. The reality of global capitalism means this. The poor of the Global South are exploited to produce the minerals required for a transition to renewables. Slave conditions and child labour are typical for people forced into employment in this extractivism. Biodiverse wild places are destroyed. Toxic chemicals are

released. The mining destroys farmland used for centuries. These problems will only escalate.

A false promise

The promise of 100% transition to renewables is a holding strategy for capitalism at the present time. Yes, let us go on growing the economy and producing more and more stuff. Don't worry, we will sort out all the problems in due course. Trust us, there will be a technological solution.

In degrowth, we do not trust the capitalist class. The market economy means that they must seek the highest possible return on their investments. But the reality of one hundred per cent renewables is the opposite of profitable. Capitalism means a growth economy. Starting from now, if we have an economy growing at 3% per year, we end up with an economy twice as big in 23 years. WTF. What we get now are just promises, along with cheap actions that look like the first stage of a renewables transition. But all the difficult, impossible stuff is being left till later.

What we need instead

We need right now to be putting in the infrastructures we need to drastically reduce our energy use, especially in the rich countries. We need to localise food growing and manufacturing. So, we are not using a lot of energy to transport food and industrial goods. We need to recycle and re-use all scarce minerals. We need to cut back on our use of electric power. Saving it for communication and IT, for lighting, for a few industrial uses. Most local transport would be by bicycles – supplemented by public transport run on renewables. We need to retrofit our housing and agriculture so we can drastically cut back on our uses of energy. We need to consume fewer industrial goods and to repair and recycle the ones we do have. Planned obsolescence must end – with products made to last. We must stop using plastics that remain toxic in the

This zine was produced by the Melbourne/Naarm branch of Degrowth Network Australia.

Please share it widely!

Want to join our movement?

Contact: degrowthnetwork@proton.me

To learn more about Degrowth Network Australia:
degrowth.info/en/blog/degrowth-network-australia