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Why the Current Climate Strategy was Doomed to Fail

Part 3: First timelines and economics. Now everything else.

No discussion of net-zero is complete without factoring in China's role.

The positive: **By a wide margin China has done more to move clean technology forward.**

The negative: **China has garnered too much control, and its global agenda isn't' aligned with the world's climate goals.**

China is ground zero

China's excessive control over key raw materials includes:

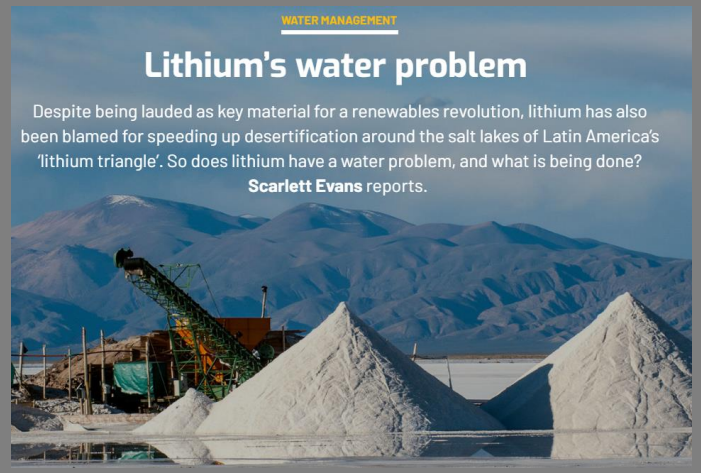
- 60% of the world's rare earth mining production
- 90% of the processing and refining of rare earths
- 77% of the world's graphite and 98% of its processing
- 70% of the world's cobalt and lithium
- Almost 50% of the world's copper

International influence initiatives ignore net-zero:

- From 2000 to 2022 China provided more energy project financing ($225 billion to 65 countries) than any Western-back development bank including the World Bank.
- 75% of that financing went to coal, oil, and gas development.

If China were a trustworthy partner its control wouldn't be as alarming, but it isn't trustworthy.

Tradeoffs ignored



The article's authors correctly note that the transition requires a shift from "big oil" to "big shovels," something the climate movement has mostly ignored.

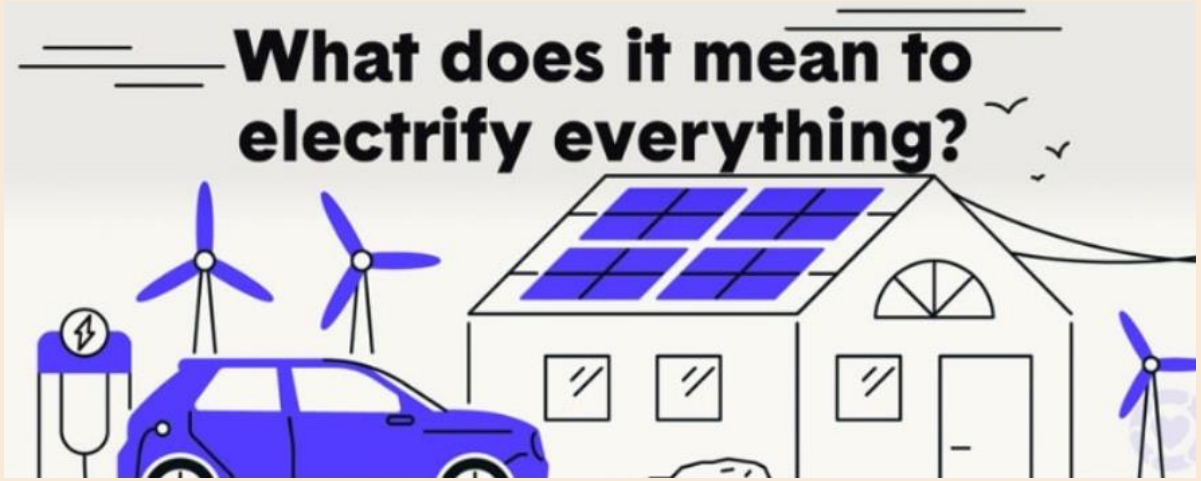
Notwithstanding the environmental tradeoffs associated with mining, more problematic are the lead times and locations of the required materials.

Miners haul sacks of cobalt ore in the Democratic Republic of the Congo.
JUNIOR KANNAH / AFP VIA GETTY IMAGES

- The International Energy Agency estimates from 2017 to 2023 demand for lithium increased 266%, for cobalt 83%, and for nickel 46%.
- Between 2023 and 2035 S&P expects lithium demand to increase another 286%, cobalt 96%, and nickel 91%.
- S&P projects demand for copper (needed for wind, solar, and data centers) needs to double by the mid 2030s to meet the 2050 net-zero emissions target.
- Based on an analysis of 127 mines opened since 2002, S&P concluded that it takes more than 20 years to develop a new mine. In the U.S. the average is 29 years.

Perhaps it's a blessing that the climate movement has missed most of its targets because its understanding of critical path planning seems to be lacking.

Electrify everything: then what?



The misguided goal to eliminate fossil fuels requires the world to electrify everything.

Hard enough for the developed world, but what about the 750 million people who still don't have access to electricity?

And exactly how much electricity would be needed?

- Even before cryptocurrency, AI, and data centers burst on to the scene, electrifying everything would require a massive increase in power generation.
- In the U.S. electricity demand has been relatively flat for over two decades. Thus, the utility industry hasn't had to deal with the challenges associated with market growth.
- Current trends indicate that power demand in the U.S. will double by 2050. With an aging infrastructure, and an industry ill-equipped to deal with rapid growth, exactly how do climate activists expect this to happen?

This is a classic case of "be careful for what you ask for." I doubt the climate community has given much thought to exactly what electrifying everything actually requires.

Current strategy is so off the mark

Excerpt from *The Troubled Energy Transition* sums:

"Today's energy transition is meant to be fundamentally distinct from every previous energy transition: it is meant to be transformative rather than additive. But so far it is "addition" not replacement.

- The authors describe this energy transition as follows:
  - The first step to is be clear about the tradeoffs and challenges. They quote John Maynard Keynes who warned not to "rebuke the lines for not keeping straight." For this transition the lines will not be straight, so better to recognize than to rebuke.

That's an elegant and diplomatic way to say that the strategy and approach is broken.

It's time to "wipe the slate clean" and reevaluate every aspect of achieving net-zero.

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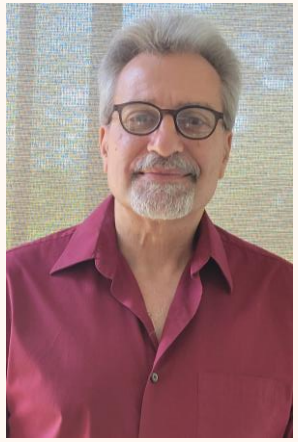

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Unbiased and Unfiltered

- An honest assessment of the climate change effort.
- I cover what's working – but more important - the issues/roadblocks that the industry would prefer to ignore.
- A must-read for anyone with a desire to understand what's really going on with renewable energy and climate change.

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