

Behind the Markets Podcast: a conversation about deep decarbonisation

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On 14 April 2023, we had the pleasure of speaking with Nat Bullard, an independent energy analyst focused on deep decarbonisation. The genesis of the discussion was around a specific set of slides that Nat tends to update on an annual basis, with the most current version, released in late January 2023, containing 141 slides.

Nat's motivation, after building experience in the space working for New Energy Finance (the 'NEF' in BloombergNEF for those familiar), was to set somewhat of a manifesto, basically focusing on a critical part of the decarbonisation story that was not being told and that he could use his 15 years of experience to shed light on. Nat hinted that he already has 50 new slides—though not yet published, so we'd note that those following the decarbonisation topic may want to bookmark his site and check back regularly for updates! Nat's website is available [here](#).

Progress is already being made

The conversation was grounded in the fact that the world is on a journey, and a critical destination is getting to 'net zero' carbon emissions by 2050. While news sources and reporting may vary, it's important to try to take that step back and recognise the true progress that has been made so far.

In Figure 1, Nat presents that primary energy demand growth in the United States (US) is currently met by renewable sources; fossil fuel growth has actually been negative in the figure.

Figure 1: Energy demand growth can be green

Source: <https://www.nathanielbullard.com/presentations>.

Historical performance is not an indication of future performance and any investments may go down in value.

In the discussion, we also talked about how each topic in the energy transition—if people are talking about transportation, construction, food, etc.—could be viewed as its own trillion dollar ecosystem. At WisdomTree, we are frequently discussing different strategies through which to gain investment exposure to the energy transition, so we were excited to see Nat's chart, shown in Figure 2, indicating that energy transition investment is up 40x since 2004.

Figure 2: The first trillion is the hardest

Source: <https://www.nathanielbullard.com/presentations>.

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The world remains awash with ‘interesting’ policy decisions

It is unlikely that political concerns can fully be decoupled from the progress the world is trying to make on decarbonisation. We discussed, for example, the policy in Germany that is moving to shut down nuclear reactors which, admittedly, may have been made prior to having the knowledge that Russia as a source of natural gas was no longer going to be an option.

We also discussed Figure 3, where we see that the US currently uses about 40% of its corn crop for ethanol, noting that 40% of [the US] corn crop meets 10% of [the US] motor gasoline demand. This policy began at a time when the US was not the world's largest oil producer, like it is today. It stays in effect because of political interests, rather than it being a good or efficient idea to use the corn in this way—it's possible that a better use of this corn could be food. Remember, the first US presidential primary is held in Iowa, a major corn producing state!

Figure 3: Our food and fuel choices matter

Source: <https://www.nathanielbullard.com/presentations>.

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What are our true priorities and what will we permit?

Towards the end of the discussion, Nat posed an interesting question, stated above. We have to be clear on both our priorities and what we'll permit on this journey that we are all taking to net zero carbon emissions by 2050. An important topic in that discussion is batteries. What Nat shows in Figure 4 is that the biggest battery makers, currently, are all based in Asia, and a lot of them are in China. This can be changed, but it won't be simple, easy, or inexpensive, and these types of activities may not always be 'clean' or healthy for the environment in all facets.

Figure 4: Batteries are [currently] dominated by Asian producers

Source: <https://www.nathanielbullard.com/presentations>.

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Ultimately, it was clear at the end of the discussion that we'll have to regularly catch up with Nat on his research as we continue to see the world (hopefully) making progress on decarbonisation. To listen to the full discussion from April 14, 2023, click [here](#).

Related products

- + [WisdomTree Recycling Decarbonisation UCITS ETF - USD Acc \(WRCY\)](#)
- + [WisdomTree Battery Solutions UCITS ETF - USD Acc \(VOLT/CHRG\)](#)

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