

Sustainability Now Podcast

Your Guidebook to a Bumpy Energy Transition

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Hello and welcome to the weekly edition of Sustainability Now, the show where we explore how the environment, our society, and corporate governance affects and are affected by our economy. I am Gabriela de la Serna and I am your host for today's episode. We've been hearing about the energy transition for years and we've been looking forward to a green future powered by renewables, but here we are and it doesn't quite look that way. EV sales are soaring, but so is coal demand. So, if this transition is supposed to be inevitable, why does it look so uneven? As I record this episode, thousands of policymakers from around the globe are gathering in Brazil for COP30, reminding us that uneven doesn't mean unraveling. On today's episode, we'll unpack what's driving that uneven progress and what it means for investors trying to navigate it. So, let's jump right in.

Speculating about the future isn't new. Humans have been doing it for thousands of years. Sometimes we nail it, sometimes we miss completely, but most of the time we land somewhere in between. But we definitely thought 2025 would look a little different. In the second part of the movie *Back to the Future*, the characters traveled to the year 2015, where hoverboards, flying cars, and self-lacing sneakers are everywhere. And beyond Hollywood, there were real-world predictions too. Around that time, world leaders were calling clean energy the next great economic race. And in many ways, they were right. Countries like China have built huge industries around renewables, electric vehicles, and batteries. And investors have seen that pay off in recent months as clean tech stocks bounce back.

Back then, it was easy to imagine the energy transition would follow a linear and simple chain of events. Technology would advance, costs would fall, policy would give a gentle nudge, clean tech would spread, and global emissions would drop. But here we are in 2025 and the picture's more complicated than that and it's also full of contradictions. Yes, clean energy is at record highs, but oil and gas profits are also up. So, the transition isn't quite the smooth, predictable journey we imagined. It's uneven, but that unevenness isn't all bad news. It's also creating opportunities for the countries, for the companies, and for the investors who can move first and adapt fastest. My colleague, Anthony Chan, out of our Singapore office, has been looking at these uneven transition from a few different angles. And first, I wanted him to tell me why it has been so uneven or if there's a helpful way to make sense of what's been going on.

Anthony Chan

When people think about the energy transition, you often see it through the lens of whether countries are hitting their emissions targets or whether companies are keeping to their net-zero promises. When they see that the emissions continue to rise or when some companies walk back on their climate targets, they

think that the transition is actually not working. But I think these observations actually tell us something that's even more important. What are the factors that drive or slow down progress in the energy transition, rather than looking at just companies or countries based on their pledges or headlines? I mean, after all, when we look at the energy transition, this is a full-scale change in how we produce and use energy. And this type of change at a very fundamental and systems level will naturally take time.

Gabriela de la Serna

So, maybe we're judging progress on the energy transition by the wrong measures. We tend to focus on company emissions or whether countries are on track to hit their net-zero goals. And that makes sense for impact-focused investors who want to see real cuts in emissions. But for investors thinking about financial risk, that view doesn't tell the full story. The energy transition is a massive system-wide shift, and that kind of change doesn't happen overnight. Anthony pointed out that the real story lies in the mix. The way technology, costs and policy all move at different speeds, and that's what makes the transition so complex. It's not just about whether companies want to cut emissions, it's about whether they can and whether they already have the tools to do it.

To dig deeper into this, Anthony and our colleagues, Shitiz Chaudhary and Chris Cote, recently published a paper called "Setting Expectations Amid a Bumpy Transition". The paper uses MSCI's new Energy Transition Framework to help investors understand what's driving transition risks and opportunities across different sectors and regions. And what's really helpful is that investors can take this framework and figure out if a company is in a good position to capitalize on the transition, and if it isn't, what hurdles might be getting in the way.

Anthony Chan

So, when we talk about companies being ready for the transition, there are three keywords to look out for, technology, affordability, and policy. First, is the technology available for them to transition? Second, are these technologies affordable? Third, is there policy that's supporting the adoption of these technologies? On technology, the point here is to understand that the ability for different sectors and different industries to apply technologies to decarbonize differ. We need to identify what's already available, and deployable today, and separate them from what's still in development. For example, electric vehicles and renewable energy. For these technologies, they're already widely available. But for many others, such as in heavy industries, to raise new technologies to replace heat processes or new construction materials, research and development is still needed.

The second key part is affordability. Even if technology is available, we need to understand whether companies can actually invest in them and make them work commercially. One part of this is about achieving greater efficiencies and scale, so that the unit cost of the new technologies are much lower. But another part of this is also about financing gaps, whether companies have the financial capacity to invest in these technologies or be able to raise capital in a cost-effective manner for the market. And finally, policy really matters, especially the stability and the clarity of policies. It is difficult for companies

to make long-term investment decisions in decarbonization, if they cannot be certain that the policies will endure.

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So, it might seem like a messy picture, but it definitely makes a lot more sense when you look at things from a certain angle. Not every sector has the same options. Not every company can afford them and not every country offers the same policy support. Put that together and you get a transition that is happening, but at very different speeds. And for investors, it all might boil down to predictability. Carbon capture and storage for oil and gas companies or sustainable aviation fuel for airlines may sound like promising transition-friendly options, but you might be more comfortable putting dollars into these technologies if you think that these are likely to be closer to cost-parity in the next couple of years. And also, if governments are likely to create favorable policy environments for them. So, really, context and timing are the name of the game here, but there are already lessons to be learned. The very recent history of the energy transition can help shine light on how the next few years might unfold.

Anthony Chan

So, I think we've really learned a lot over the last five years. And I think we can highlight two examples, electric vehicles and hydrogen. For electric vehicles, if you think about where we were five years ago, it still felt a little bit uncertain. People were worried about the reliability and costs of electric vehicles, but that has really changed a lot over the last couple of years. Electric vehicles have gone mainstream. In fact, in China, half of all the new cars sold in early 2025 were electric vehicles. And here, policy has played a huge part in making electric vehicles much commercially, much more affordable. For example, vehicular emission standards were applied to make internal combustion engine vehicles more costly. And there are also tax exemptions and tax credits that made EVs more accessible.

One thing we also observed is that when these incentives disappear, as we've seen in some parts of the world, electric vehicle sales do drop. And that shows how consistent policy is really critical. Another example we could look at is hydrogen. Here we move from height and a lot of hope to the hard realities of implementation. Green hydrogen today is still expensive. In many instances, they're not likely to achieve cost parity within the shorter medium term against gray hydrogen. The key bottlenecks here are about technology, for example, achieving greater efficiencies in electrolysis and ensuring that we have the right supply chains that can allow the hydrogen economy to grow. Policy is also a big factor in making the technologies more affordable and more deployable.

Gabriela de la Serna

If the past few years have taught us anything, it's that the technology alone is not enough. Policy has to keep pace for real progress to happen. So, what does this all mean for investors? It really depends on goals and time horizons. Those more focused on risk and return outcomes over a shorter time horizon,

certainly should look into these drivers of policy stability to understand how that could impact investment returns. But long-term investors, the ones with patient capital, can take a different role, backing the companies that need time and support to transform to drive the transition forward. We started the episode talking about sci-fi movies. And unfortunately, for our Back to the Future fans out there, we may still be bad at predicting when we'll have flying cars and self-tying shoes. But good news is that we're getting a lot better at figuring out how and where this energy transition is going to happen.

And that is it for the week. A massive thanks to Anthony for his take on the news with a sustainability twist. And thanks to you as well for listening and sticking around. The research that we discussed on today's show is freely available on MSCI's research and insights page. If you like this episode, don't forget to subscribe and maybe even share it with a friend or colleague. That's all for me. Thanks again and catch you next week.

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