Powering ahead with the transition



Despite headwinds in the US market, the rest of the world is accelerating efforts in the energy transition, says Quinbrook's David Scaysbrook

The Trump administration has spent its first year dismantling many incentives for renewable energy investment. But the news is not all bad, says David Scaysbrook, co-founder and managing partner at Quinbrook. There are still pockets of opportunity within the US, he points out, alongside plentiful scope for compelling investment in other markets.

Scaysbrook believes that improved battery storage technology in particular will be a game changer for the transition. In certain locations, he tells us, solar and storage will soon be able to provide power 24/7 – the result will be a redrawing of the world's economic

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geography, as energy intensive industry heads to regions where low-cost solar is most abundant.

What do recent changes in the policy landscape mean for investment in US renewables?

The One Big Beautiful Bill Act significantly impacts the US renewables investment landscape in really important ways. The rhetoric is that the US now has an 'all-of-the-above' energy strategy. But the reality is that the administration has technologies it likes and technologies it doesn't.

It's no secret that onshore and offshore wind are disliked. Solar is neutral to slightly negative, depending on where you are and what you're trying to do. Others are neutral to positive. Battery storage, surprisingly, got an even stronger boost from the OBBBA than in the Inflation Reduction Act. Geothermal, hydro and biofuels are all relatively safe places to invest in the

A lot of investors have taken advantage of the safe harbouring pathway, where you can protect a project from regulatory change by basically spending a minimum amount of money to qualify for tax incentives before relevant expiry deadlines. You can lock-in the prior incentive regime under the IRA. That means, for the next two or three years, there'll still be an enormous amount of investment in US renewables. This will give the appearance that the OBBBA didn't impact the sector that badly.

But we're likely to see a tapering off of new investment volumes once we're through construction of the projects that have been safe harboured. Once we get to 2028 or 2029, we'll definitely see a drop off because the pipeline of new projects is drying up in terms of ongoing development spend.

Projects are withdrawing from the grid connection queue because investors don't have the confidence to progress them, especially if they were not adequately safe harboured. There's a real shakeout in the US project development pipeline in solar and wind in particular. And that's likely to manifest itself in the 2028 or 2029 timeframe.

Will it still be possible to find pockets of opportunity for renewables in the US market?

Federal land is not a safe place to develop renewables because the Trump administration has jurisdiction over the Bureau of Land Management and has issued restrictive guidance on new renewables project approvals on BLM land. Therefore, only patchy success can be expected in getting the necessary consents and approvals from the BLM over the next few years. We're already seeing that, with some high-profile project cancellations in the news recently.

But we're also seeing unprecedented power demand growth represented by the artificial intelligence driven hyperscale data centre phenomena. It's a game changer for growth in US power demand that's changing the status quo materially.

Promoting the US in the AI arms race demands a huge amount of new electricity capacity. But crimping power supply options in low-cost and 'fast to build' renewables like solar PV, and then imposing tariffs on imported equipment that make them more expensive, seems to be at odds with that objective.

As a consequence of the OBBBA, coupled with the AI driven power demand explosion, we're seeing power price forecasters projecting between a 20 and 50 percent increase in average wholesale power prices in the US over coming decades.

Because of the changes to US energy policy, and the scale of AI data centre need, the forecasters are now including more gas in their energy mix. With new gas turbines costing three times more than they did a few years ago, and gas prices reflecting the new demand picture, power prices are going up which is inflationary and challenges US productivity and competitiveness.

So, power prices are rising rapidly in the US and will continue to do so due to these combined factors. The irony of that is, if you're developing low-cost renewables in the US outside BLM federal land, and you can procure the key equipment without paying punitive tariffs, plus you've already secured permits and a grid connection, your project's revenue opportunity just expanded dramatically. That makes certain renewables projects even more compelling.

That's clearly not the intended consequence of the OBBBA, but if you're fortunate to have well-located projects,

What kinds of energy transition technologies do you think will see increased demand in the next five-10 years?

The absolute standout is longer duration battery storage. Earlier this year, we announced the release of an eight-hour battery with CATL, which is a genuine world first. We can see firsthand from our technical collaboration the incredible pace of evolution, not only in the efficacy of the technology, but its cost. It's improving at an unprecedented rate. We're seeing massive improvements in capacity, duration capability and reductions in cost every six-12 months.

And the more that happens with battery storage, the more it turbocharges the fundamental attraction of solar in particular. When you increase the power density, reduce the unit cost and increase the duration of battery storage, it really has a multiplier effect at a system level. And that's why we developed the eight-hour battery with CATL. It makes the solar capacity that we've coupled to the battery so much lower cost, useful in time-of-day terms for our industrial customers and more valuable to them.



particularly solar and battery projects on private land, you're actually seeing a higher revenue outlook and therefore a higher equity return opportunity. So, it's not all doom and gloom.

How will the changed US stance towards the energy transition affect global flows of investment?

Nothing impacts global capital flows more than sentiment. I can talk to an investor for hours about why the US still has lots of gold nugget opportunities, but the prevailing sentiment has been negative. Overall, that obviously makes fundraising for US focused clean energy investment more difficult. The net result is not that we expect to see a reduction in overall capital flows to the global energy transition. But there will likely be less flowing to new renewables in the US over coming years. And what doesn't flow to the US will be diverted to other country markets.

In other 'safe haven' countries offering high conviction around capital deployment - like Australia, Canada, the UK - you'll see a pickup in overall capital flows. For example, there'll be way more capital invested in the Australian energy transition in the next 12-36 months. It'll be an historic record, for sure. Will it make up for the US? That's difficult to say because the US is such a huge market. But I think the combination of the current AI data centre boom, and the extent of 'safe harbouring' by many renewables project developers, will camouflage the drop off in new US investment we anticipate in 2028 and 2029.

To what extent do you see heavy industries focusing on decarbonisation in different parts of the world?

In most OECD markets, there's no question that decarbonisation is a top priority for heavy industry. The EU Carbon Border Adjustment Mechanism is going to create market access advantage for those that are reducing the carbon intensity of their manufacturing processes.

The first step to decarbonise is substitution of energy supply. A switch to renewables is the most obvious strategy for a heavy industrial user, particularly where you can procure new renewables close to 24/7 and then isolate yourself from any coal or gas that might be on

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the grid, even if you're factory is grid connected. We can do that now with our tracking and tracing technology. That's a real breakthrough, especially with the pending changes to the Greenhouse Gas Protocol. You could have, say, an aluminium smelter in Queensland being powered entirely by carbon free renewables, even though half of the power mix in the Queensland state grid is still fossil fuelled.

One of the key drivers for industrial energy supply switching is fundamental cost. Particularly in certain places where you have abundant sunshine, solar plus storage is the cheapest power supply option. That's why Rio Tinto, recently stated publicly their plan to power their smelters on 100 percent renewables. That's a game changing statement from one of the heaviest industrial emitters.

What we need to solve is the 'missing hours' problem. Getting 24/7 renewables, 365 days a year is the 'holy grail' of decarbonisation. And the longer duration battery technology gets us much closer, especially in places like Australia or Texas where there's an abundance of solar energy. When we debut our eight-hour battery in Queensland, we'll be getting very close to a 24/7 carbon free solution and that's the revolution on the horizon.

Does this imply there'll be a long-term shift of heavy industry moving to areas with the best renewable resources?

Most definitely. We're already seeing that. Silica smelting and polysilicon production, which is the bedrock of solar PV, is shifting to the Middle East. Again, the longer duration batteries will keep turbocharging that and make places like Oman and Saudi Arabia attractive to the major Chinese manufac-

I think if you put it in the context of the fundamental principles of comparative advantage in selecting host countries for your new factory, it's eminently sensible that energy-intensive industries would gravitate to locations where they can access low-cost renewable power. It means they can reduce their carbon intensity and avoid carbon taxes.

But the places where you can get cheap renewable power at scale, plus all the other infrastructure you need for heavy industry are actually quite scarce. That's where Australia is very blessed and has a significant competitive advantage over most other OECD countries, which, of course, Quinbrook is very busy trying to exploit to the max.