Energy transition gets unexpected boost

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The past 12 months has seen a profound shift in the outlook for the global economy. Security of energy supply concerns sparked by the war in Ukraine, higher rates of inflation than those seen for a generation and the persistence of the COVID-19 pandemic in key markets weighs upon expectations of economic growth. In part in response to these crises, 2022 saw notably aggressive new policy packages adopted in the US and EU (European Union) in support of energy and climate security goals.

The US Inflation Reduction Act (IRA) and REPowerEU (REU) plans respectively provide new grounds to anticipate a more rapid transformation in the ways energy is produced and consumed. Certainly both plans offer wider and deeper regulatory support for the energy transition. They also offer a bullish signal for the value of those equities and commodities positioned for growth in the renewable energy space counter those economic headwinds which defined the second half of 2022 and early 2023.

US shifts focus on greater domestic supply chain capacity

On 16 August 2022, US President, Joe Biden, signed the IRA into law. One objective of the IRA is to raise US demand for renewable energy. To do so, a range of fiscal incentives, including existing tax credits, have been extended and new forms of support have been introduced. As shown in Figure 1.1, these credits hold considerable cumulative value; Wood Mackenzie estimates in excess of US$40 billion over the next decade.

The IRA also introduces specific tax credits and bonus adders to encourage uptake of US-made equipment for renewable developments. The aim of this is to help offset the investment cost of expanding manufacturing capacity. Wood Mackenzie's assessment is that the IRA will help spur further investment in US renewables manufacturing.

However, this will take time. Demand is already so great and the premium for US production so high - many capital-intensive pieces of equipment, such as wind turbine blades and PV (photovoltaic) panels, have up to a 34% price premium over imported counterparts - that imports are part of the landscape for some time to come. As a result, original equipment manufacturers (OEMs) and entities across the sustainable power value chain will strategically position themselves to take advantage of the US market.

One issue to watch is the final guidance from the US Treasury Department, the IRS, and the Department of Commerce on key provisions of the IRA with respect to what counts as "US manufacturing" and how domestic thresholds are calculated. Interpretation on these parts will be critical in determining the economic feasibility of setting up a domestic manufacturing supply chain, and, therefore, developer appetite for US equipment. That said, the outlook for US listed players in the renewable energy and

sustainable power (electricity production) space, and the domestic supply chains that support them, have received an unexpected dose of regulatory support irrespective of how those provisions are settled.

Source: WoodMackenzie.

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

Europe adds to already aggressive capacity targets

The European Commission (EC) published its detailed REU plan on 18 May 2022. Its goal is to rapidly reduce reliance on energy imports from Russia, without abandoning Europe's decarbonisation objectives. Underpinning the plan is the target to increase the EU's renewables target to 45% by 2030.

Wood Mackenzie estimates that a goal of 45% of the supply mix by 2030 requires total renewable generation capacity to reach 1,236 GW by 2030 – 15% higher than Fit-for-55 and more than double today's capacity. Energy storage is an essential component of any power market with a high share of variable renewable generation. REU highlights that energy storage will play a crucial role in providing flexibility and future supply security.

The European Commission may assume (or hope) the storage market will take off on its own with the rising shares of variable renewables in the power system. But recent trends have demonstrated that this cannot be taken for granted. Even in 2022 – a time of rapidly rising power prices – price cannibalisation still happened. That's a red flag for some investment theses and European renewable electricity players have become increasingly vocal that more needs to be done to ensure that the characteristics already being displayed in markets do not become major barriers to the continued expansion of renewable power supply.

Source: WoodMackenzie.

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A new renewable energy race

Wood Mackenzie research indicates the IRA will incentivise development of further US renewable equipment manufacturing capacity to support the expansion of renewable power capacity. Likewise, REU is a notable statement of EU alignment and heightened climate and energy security ambition for a larger share of renewable power capacity in the future. Both policies promise to accelerate the energy transition despite the macroeconomic context within which the policies were formulated.

The policies also indicate a contest is afoot to establish domestic supply chains capable of supporting an aggressive pursuit of net zero carbon emissions. Renewable supply chains, challenged by COVID-19 and the war in Ukraine, are being brought onshore and the race is on to see who can gain advantage in terms of lower cost and greater access to key technologies and commodities. The early indications are that the IRA, with the promise of stable long-term tax incentivisation, has given the US an early lead. Attention

is now focusing on the EU, its member states, and just how it may respond to deliver a similar domestic capacity boost like the IRA has for the US to support its net zero targets.

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