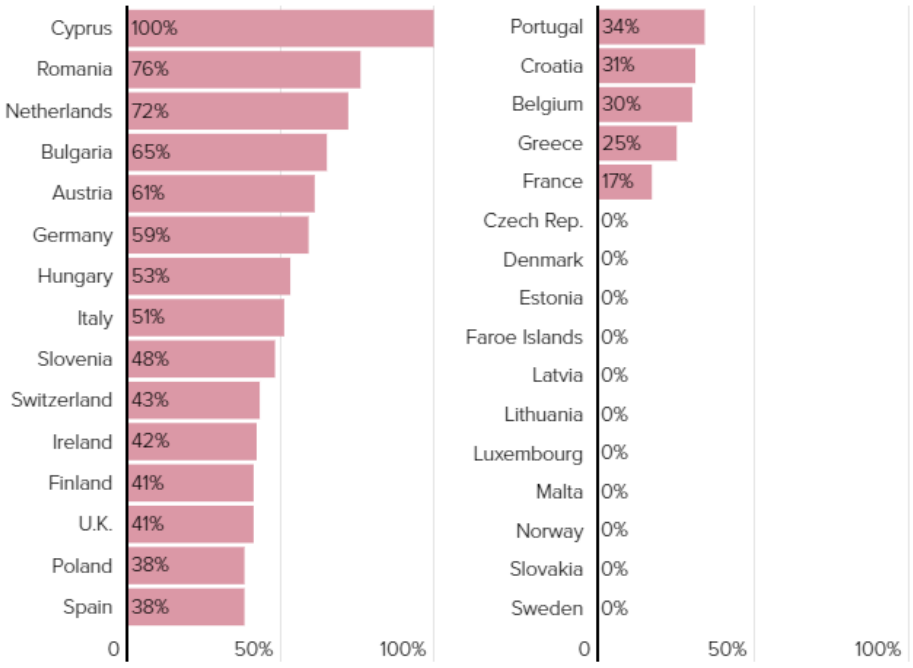
# Dragoman Digest

**Germany increases reliance on Chinese 5G tech despite security concerns**

*Rising dependence comes despite European wariness over Chinese exposure in critical infrastructure*

Eight European economies source more than half of their 5G Radio Access Network (RAN) equipment from **Chinese** vendors. RAN equipment is required to connect devices to a network. In 2022, 59 percent of Germany's 5G RAN came from Chinese vendors (principally Huawei), a higher share than Chinese providers have (57 percent) in Germany's 4G network.

**Share of Chinese equipment in Europe's 5G rollouts**




Source: Strand Consult

While other Western countries and **US** allies in Asia have limited the rollout of Chinese 5G technology, Germany was reluctant to follow suit. Germany feared retaliation from China and worried that excluding Chinese companies would delay the rollout and significantly increase costs. However, in April 2021, Germany appeared to synchronise its approach with that of key allies, passing the 'IT Security Law 2.0', which allows the government to exclude suppliers of critical 5G network components according to EU national security criteria.

Germany's reliance on Chinese 5G equipment may present a security risk. Unlike 4G networks, there is no real distinction between the 5G core and edge/RAN component. The corollary is that security risks are not limited to the core, as was the case with 4G.

**Portugal, Spain and France to construct region's first major green hydrogen corridor**

*The project is the first pillar of the EU's plan for a regional hydrogen transport network*

Earlier this month, **Spain**, **Portugal,** and **France** reached an agreement to build the **EU**'s first hydrogen corridor, known as H2Med. H2Med will transport green hydrogen produced in Spain and Portugal to France via a 700km underwater pipeline. H2Med is expected to transport 10 percent of the EU's hydrogen consumption by the end of the decade – 2 million tonnes of green hydrogen annually. The €2.5 billion project will be operational in 2030. As a European Commission Project of Common Interest (PCI), the project is eligible for a share of the €25.8 billion Connecting Europe Facility (CEF) and financial support of up to 50 percent of its total costs. Spain, and France's gas transmission system operators (TSOs) have submitted their proposal for PCI funding support.

The project is the first major milestone of the European Hydrogen Backbone (EHB). The EHB is an initiative comprised of 31 European energy infrastructure operators across 28 countries, with an estimated total investment between €80 to €143 billion. The plan envisions five potential hydrogen supply corridors to connect jurisdictions with high hydrogen potentiality with key demand centres across Europe by 2030. The final design and timeline for the EHB remain uncertain. Based on a network of 60 percent repurposed natural gas pipelines and 40 percent new pipelines, the EHB is a huge bet on green hydrogen's future usage.

**Australia declares first offshore wind zone**

*The country's policy and regulatory regime for offshore wind is in its infancy*

Offshore wind in **Australia** has reached a major milestone. This week, the Federal Government formally declared a 15,000km² area in the Bass Strait off the coast of Victoria as the country's first offshore wind zone. Feasibility license applications for the area will open 'soon'. Around five projects are expected to receive a seven-year license. The 2.2GW Star of the South project – backed by **Danish** Copenhagen Infrastructure Partners and Australian superannuation fund Cbus – is by far the most advanced, having already been awarded 'Major Project Status' by the Government. It is targeting the first generation by 2028. A slew of other multinational developers have expressed interest, including **EU** heavyweights Ørsted and Iberdrola, but, as yet, none have firmed up plans. The Government is considering a further six regions for offshore wind – a second in Victoria, two in New South Wales, and one each in northern Tasmania and Western Australia.

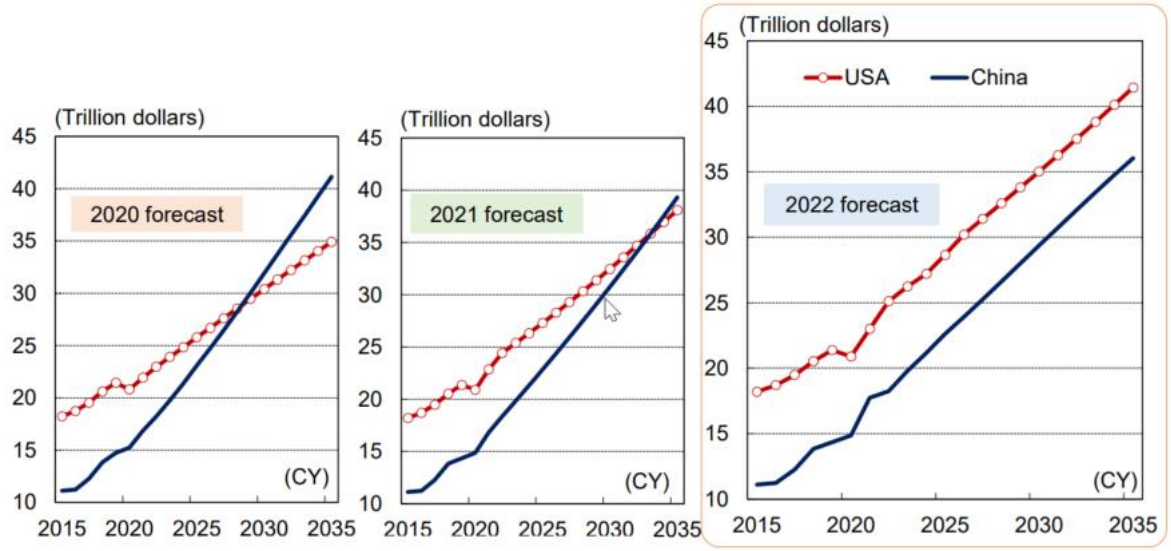
Despite the strong interest, offshore wind appears unlikely to play a meaningful role in Australia's energy mix before the 2030s given long lead times. In the EU for example, permitting takes up to 10 years for each project, and up to 13 in the **UK**. Australia's nascent policy and regulatory framework (most notably uncertainty regarding feasibility licensing and procurement processes) may hamper the timely development of projects. This could ultimately deter investment at a time when competition for capital is fierce, threatening the viability of plans to use offshore wind to offset the impact of the withdrawal of coal-fired power generation in the early 2030s.

**China's GDP may not overtake the US**

*The revised forecast reflects Beijing's economic deceleration*

A **Japanese** think-tank believes **China** is unlikely to surpass the **US** as the world's largest economy in the near future or possibly ever. In its 2022-2035 Asian Economic Forecast, the Japan Centre for Economic Research (JCER) forecasted that China's GDP growth will sit in the 2 percent range in the 2030s. This is in sharp contrast to its previous forecasts. In 2020, JCER forecast China's economy would overtake the US by 2028-29. The 2021 forecast subsequently delayed the US-China reversal by four years to 2033.

**Chinese GDP trails the US**




Source: JCER

In this year's forecast, JCER cited China's zero-COVID policies, population decline, and ongoing US export control rules. China is likely to grow 3.2 percent this year, well below its 5.5 percent target. A recently released World Bank forecast had China growing at just over 4 percent next year. Beijing's growth model has been excessively reliant on infrastructure and property investment. Beijing invests more than it can productively absorb. Non-productive investments have slowed GDP growth and record high debts of US$51.87 trillion or 295 percent of GDP. China aims for a challenging pivot to a development model based on domestic consumption and services.

**Taliban clash with Pakistan at disputed Durand Line border**

*Latest confrontation comes despite Pakistan's decades long efforts to cultivate the Taliban*

**Afghan** Taliban forces have shelled the disputed 'Durand Line' border with **Pakistan** twice this month, leaving at least 15 people dead. This comes amid an attempt by Pakistan to fence the internationally recognised border between the two countries. The Taliban have periodically responded violently to Pakistan's efforts since 2021. The Taliban dispute the legitimacy of the **British**-demarcated Durand Line and argues that it artificially splits ethnic Pashtun communities. Importantly, the border also provides the Taliban with abundant revenue through tax and customs duties. The disputed order adds to a host of issues that have marred the bilateral relationship in recent times. The Taliban have continued to provide a safe haven to the Tehrik-i-Taliban Pakistan – the so-called 'Pakistani Taliban' – and have recently even conducted diplomatic outreach to **India**.

These latest events underscore how Pakistan's efforts to support and cultivate the Taliban have been a pronounced failure. Former Pakistani Prime Minister Imran Khan infamously likened the Taliban's takeover to breaking the "shackles of slavery" and sought to legitimise the group at last year's United Nations General Assembly. The Taliban – whose ideology mixes deeply conservative interpretations of Islam with Pashtun nationalism – have proven to be far more independently minded than Pakistan had assumed. Already facing political upheaval and multiple insurgencies, Pakistan can hardly afford the opening of another front.

**Massive EV battery manufacturing capacity expansion planned in emerging markets**

*Positive market projections come amid strong competition from dominant players*

By 2030, 104GWh of battery manufacturing capacity will be added in emerging Asian economies (excluding **China**) to meet anticipated EV demand. **Malaysia** is projected to grow its capacity from 6GWh in 2021 to 37.4GWh by the end of 2030. **Thailand**, **Indonesia**, **India** and **Turkey (**Türkiye) are also expected to add significant capacity. They will each increase capacity from less than 2GWh to approximately 5, 10, 12 and 30 GWh respectively by 2030. If realised, the steep projected capacity increase in these countries will largely be because of these countries' ambitious EV targets and local manufacturing ambitions. Thailand, for instance, is aiming for all new vehicles to be electric by 2035. BYD, Toyota and Honda are all planning to manufacture EVs in Thailand. Due to the fragility of the manufacturing process, EV batteries are typically made in relatively close proximity to vehicle manufacturing locations.

EV battery manufacturers in emerging markets will face headwinds in displacing major competitors such as China, the **EU** and **US**. The industry is both capital and energy intensive. While other economies have announced aggressive subsidy regimes, such as the US' US$35 per KWh tax credit for battery cell manufacturers (under the Inflation Reduction Act), Malaysia and Indonesia are yet to hand out any major grants to manufacturers. Emerging markets will be hoping that their cheaper manufacturing costs and larger labour pools will help outweigh these disadvantages.

23.12.22

**Indonesia's resource nationalism takes another step**

**Indonesia**'s success in promoting a large number of new nickel projects on the back of restrictions on mineral exports, has led President **Joko Widodo** to take extend the policy to bauxite. Jakarta's move on base metals may have been aimed initially to promote copper smelters, but it coincided with a global pursuit of battery materials and the result was a string of new – mostly Chinese - nickel smelters and some elaborate plans for ambitious battery projects.

Despite a successful WTO complaint over nickel, Jokowi has moved ahead with a ban on bauxite exports from June. A large proportion of Indonesia's bauxite is sold to **China**. While it has gas for alumina refining and an excess of capacity in its coal-fired power grid, Indonesia has become alert to the rising market demand for "green" processing of metals – especially those used in electric vehicles and similar consumer products. Despite longstanding policy targets, Indonesia's national electricity utility, PLN, has made almost no progress in rolling out substantial renewable capacity.