



# The West digs for the next energy battle

The 11-nation partnership to secure critical mineral supplies has the potential to influence future investments and trade flows in energy

Russia's war on Ukraine and the West's economic war on Russia have featured the "weaponisation of energy" quite openly. Energy security therefore figured prominently at the Summit meetings of the US-EU in Brussels on June 15, the EU Council on June 23, the G-7 in Germany on June 26, and NATO in Madrid on June 28.

As Europeans scour the globe for every fossil fuel available to make up for shortages of Russian gas, the EU struggles to adhere to its green agenda spelt out in February at the US-EU Energy Council: "Excessive focus on immediate needs risks distracting us from the bigger picture. Because reliable, affordable and secure energy can only come from a decarbonised energy mix based largely on renewables". Still, the US and EU, who pronounced at their Summit that they had "laid the foundations for the rules-based international order", also stated that "some of the rules need an update" with high priority given to "protect the planet" and "foster green growth".

The "update" to "rules" was not clarified, but at the G-7 Summit in Germany, leaders took note of an Organisation for Economic Co-operation and Development report on security of supply of raw materials which cautioned that the green energy transition will require a quantum leap in the use of critical minerals, many of which are more geoeconomically concentrated than oil. Electric Vehicles and battery storage for the power sector could increase lithium demand by 40 times and cobalt 30 times by 2040 unless advances in battery chemistry reduce mineral requirements. The platinum group of metals

will need to be scaled up to 150 times the present production! For many key minerals, including lithium, bismuth, cobalt, nickel and rare earths, most production is concentrated in just three countries.

Against this backdrop, the creation of the Mineral Security Partnership, "an ambitious venture to bolster critical mineral supply chains" according to the US, is a development of international significance. Eleven countries (US, Canada, Japan, Germany, France, UK, Finland, Norway, Sweden, Korea, Australia along with the European Commission) have joined as partners, in what one analyst describes, as a "metallic NATO". Some are geologically well endowed and major players in mining, others have strengths in refining, processing and trading of minerals, and some lead the R&D on metallurgy for alternatives. The partnership was announced in a politically low-key way on June 14, albeit during a major mining conference in Toronto.

China has the first-mover advantage because it has invested heavily in all the links in the supply chain for solar and wind energy, and plans to do the same for all green energies. The Green Finance Committee of the China Society for Finance and Banking set up by China's central bank—the People's Bank of China—claimed in a December 2021 report that China is expected to invest \$75 trillion by 2050 in carbon neutrality financing. Zero carbon electricity, hydrogen fuel cells and carbon capture are all included in this extraordinarily ambitious blueprint, which calls for investment equivalent to over 10 per cent of China's gross domestic product every year. Achievable or not, it gives us an

idea of China's goals, which include capturing the commanding heights of the world's future energy.

China's long march started in the early 2000s when it first built solar photovoltaic (PV) industries using Western technology. It then subsidised PV as a strategic sector, and created production scales which no other manufacturers could match. In 2001, Chinese solar PV manufacturers barely had 1 per cent of the global market share. By 2022, the International Energy Agency was warning that 80 per cent of all the world's manufacturing stages, from polysilicon, to ingots, wafers, cells and modules are in China! A key factor in China's swift rise to dominance was its vertical integration of the industry, starting with the messy business of mining and processing of polysilicon, much of it in Xinjiang, a region now in the crosshairs of US sanctions.

Rare earths, which are vital for permanent magnets and other applications in renewable energies (as well as defence, medical and electronics industries), present a more extreme case of Chinese dominance. China now controls 50 per cent of global rare earth mining, but as much as 80-90 per cent of the highly polluting and energy-intensive processing of the rare earth elements into industrial products! China has used, and still threatens to use, rare earths as a weapon against antagonists. The US Department of Energy estimates that an export ban lasting one year could cause magnet production outside China to fall by 40 per cent.

NATO unveiled a new Strategic Concept at Madrid, which includes "mitigating strategic vulnerabilities" to counter China's attempts "to control key technological and industrial sectors, critical infrastructure, strategic materials and supply chains." Japan, Korea, and Australia were among the invitees to the meeting with NATO leaders, giving a new Asian focus to alliance planning.

China is obviously worried by both the security and economic dimensions of the newfound Western unity. The Chinese Communist Party-owned *Global Times* commented that on rare earths, China's dominance would be unaffected because it "has advantages in production capacity, technology, equipment for upstream mining, midstream smelting, and downstream electrolysis technology"; nevertheless, it felt that the US/NATO "anxiety to decouple with China in many fields of normal economic and sci-tech cooperation is a dangerous signal...to prepare for an all-out conflict with its strategic competitor".

The global mining industry remains cautious about whether output increases on the scale envisaged for energy transition are sustainable. Whether commercial rivalries in the lucrative energy business will permit effective plurilateral cooperation, also remains an open question. Nevertheless, the Mineral Security Partnership has the potential to influence future investments, technological development, and trade flows in energy raw materials. India plans mining reforms and collaboration with Australia which could help avert dependence on China. Keeping an eye on how deep the new partnership venture digs down might be useful.

The writer is a former foreign secretary



RANJAN MATHAI