Rare earths are scarce, strategic and soaring

Published 2 March 2026

Mobeen Tahir
Director, Macroeconomics and Thematic Research

Key Takeaways

- Demand for rare earths is accelerating across energy, technology, and defence
- Supply is tight, highly concentrated, and structurally constrained
- These dynamics are putting rare earths firmly on investors' radar

Do you have your smartphone nearby? Perhaps you're reading this on one. Hold it in your hand. You now have, clasped within your fingers, among many other chemicals, most, if not all, of the 17 rare earth elements1. Smartphones, often considered urban rare earth mines, are not alone in packing this strategically important group of metals. Rare earths are all around us. The world needs more of them, and supply is unlikely to be enough based on current forecasts.

This blog outlines the International Energy Agency's (IEA) demand and supply projections for rare earths and explains why investors are so excited about the prospects for this group of commodities.

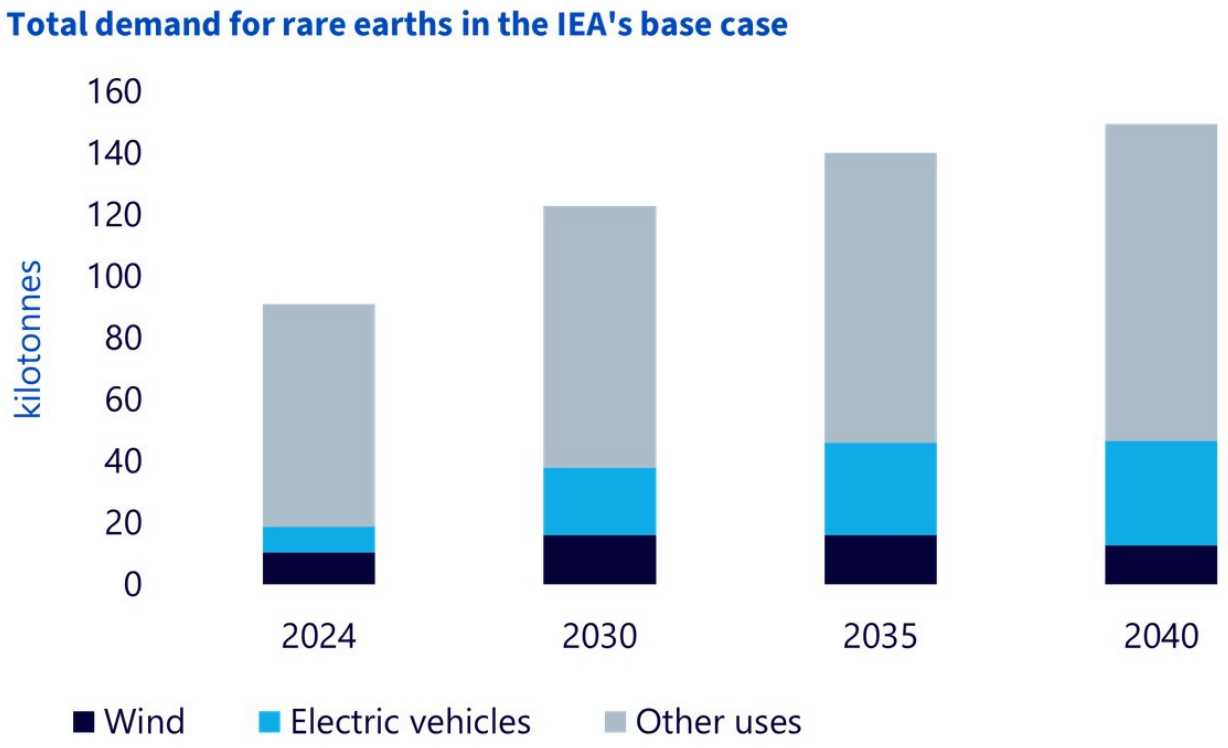
How does WisdomTree capture the opportunity

The WisdomTree Strategic Metals and Rare Earths Miners UCITS ETF is built in partnership with industry experts, Wood Mackenzie, to give investors smart exposure to companies involved across the supply chains of ten different commodities. These include aluminium, cobalt, copper, lithium, nickel, platinum, silver, tin, zinc and rare earths.

Wood Mackenzie's industry expertise allows us to do three things: identify the key value-chain segments for each commodity in the portfolio; determine stock weights based on their revenue exposure to the value chain and their growth prospects; and monitor the space continuously to ensure the exchange-traded fund (ETF) continues to represent the opportunity set.

Demand for rare earths is expected to rise

The International Energy Agency's Stated Policies Scenario, in other words, its base case, which projects the future based on currently stated policies globally, forecasts a notable increase in demand for rare earths.



Source: International Energy Agency (IEA), May 2025. **Forecasts are not an indicator of future performance, and any investments are subject to risks and uncertainties.**

We can make three key observations from the graph. First, wind is shown as a separate segment. In wind energy, rare earths such as neodymium, praseodymium, dysprosium and terbium are used to make high-strength permanent magnets. The use of these magnets increases the efficiency of wind turbines. In other words, by sprinkling them into the mix, wind turbines are able to generate more electricity from a given amount of wind2.

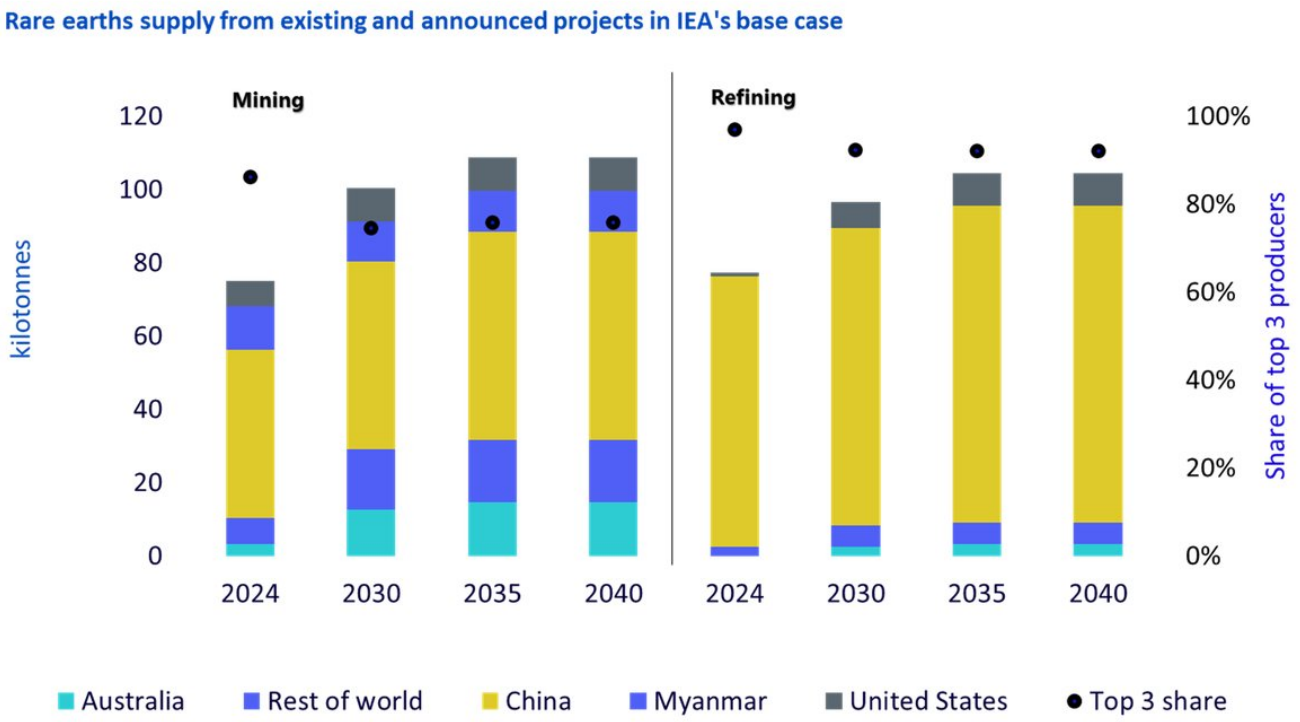
Second, electric vehicles (EVs) are also shown as a separate segment. EVs rely on rare earths like neodymium, dysprosium, praseodymium, and terbium to increase the efficiency of electric motors, giving vehicles the ability to reach higher speeds and drive longer distances on a single charge3.

Third, there is an ‘other’ category which is, quite clearly, significant. In clean energy, rare earths are used in solar power, battery storage systems, and hydrogen production. Beyond energy, they are also used in consumer electronics such as screens and headphones, defence and aerospace systems like radar and jet engines, industrial applications including data centres and robotics, and medical applications such as MRI machines, to name a few examples.

Rare earths, therefore, play a crucial role across both the energy sector and the digital economy.

Supply is expected to be tight and concentrated

The International Energy Agency's base case on supply makes the analysis of market dynamics even more revealing.



Source: International Energy Agency, May 2025. **Forecasts are not an indicator of future performance, and any investments are subject to risks and uncertainties.**

From the chart, we can make three key observations. First, supply is expected to consistently fall short of demand. This remains the case through to 2040. In the world of commodities, this is ultimately the most important dynamic to pay attention to.

Second, supply is extremely concentrated. Notice the share of the top three producing countries, both in terms of mining and refining. This is not because these are the only countries with known deposits of rare earths. Rather, it is because they are among the few where production is currently taking place. Like many other strategic metals, rising demand is likely to incentivise more mining and refining activity around the world.

Third, the dominance of China, which is already evident across many industrial metals, is especially pronounced in rare earths. China dominates mining and almost entirely accounts for refining. Despite countries such as the US and others ramping up efforts to build their own supply chains, China's share is expected to remain dominant. This means that if any link in the current supply chain were to break, tightness could quickly become acute.

Overall, supply is tight and concentrated, creating a very attractive opportunity for increased mining and refining activity in this sector.

Closing word

Rare earths are often termed the vitamins of modern society. This is because many industries rely on them in small but essential quantities. They possess unique magnetic, luminescent and electrochemical properties that are difficult to replicate, making them hard to substitute.

They enable better performance, efficiency and miniaturisation across numerous applications, and given their role in strategic areas such as defence and AI, their importance is rising rapidly.

They rarely feature in the everyday vocabulary of the average person. This is perhaps because they are relatively obscure, hard to remember and pronounce, and until recently, not the focus of mainstream interest from media or investors. But that has changed. With interest accelerating and structural demand building, rare earths are emerging as a powerful investment frontier for 2026 and beyond.

1 How Many Rare Earth Elements Are Really Inside Your Smartphone?, Medium, December 2025.
2 International Energy Agency, Stanford Materials, 2025.
3 International Energy Agency, Stanford Materials, 2025.

Important Risks Related to this Article

IMPORTANT INFORMATION

Marketing communications issued in the European Economic Area ("EEA"): This document has been issued and approved by WisdomTree Ireland Limited, which is authorised and regulated by the Central Bank of Ireland.

Marketing communications issued in jurisdictions outside of the EEA: This document has been issued and approved by WisdomTree UK Limited, which is authorised and regulated by the United Kingdom Financial Conduct Authority.

WisdomTree Ireland Limited and WisdomTree UK Limited are each referred to as "WisdomTree" (as applicable). Our Conflicts of Interest Policy and Inventory are available on request.

This marketing communication has been prepared for professional investors, but the WisdomTree products set out in this document may be available in some jurisdictions to any investors, subject to applicable laws and regulations. As the product may not be authorised or its offering may be restricted in your jurisdiction, it is the responsibility of every person or entity to satisfy themselves as to the full observance of the laws and regulations of the relevant jurisdiction. Prior to any application investors are advised to take all necessary legal, regulatory, tax and investment advice on the suitability and consequences of an investment in the products. Past performance is not a reliable indicator of future performance. Any historical performance included in this document may be based on back testing. Back testing is the process of evaluating an investment strategy by applying it to historical data to simulate what the performance of such strategy would have been. Back tested performance is purely hypothetical and is provided in this document solely for informational purposes. Back tested data does not represent actual performance and should not be interpreted as an indication of actual or future performance. The value of any investment may be affected by exchange rate movements. Any decision to invest should be based on the information contained in the appropriate prospectus and affer seeking independent investment, tax and legal advice. These products may not be available in your market or suitable for you. The content of this document does not constitute investment advice nor an offer for sale nor a solicitation of an offer to buy any product or make any investment.

An investment in exchange-traded products ("ETPs") is dependent on the performance of the underlying index, less costs, but it is not expected to match that performance precisely. ETPs involve numerous risks including among others, general market risks relating to the relevant underlying index, credit risks on the provider of index swaps utilised in the ETP, exchange rate risks, interest rate risks, inflationary risks, liquidity risks and legal and regulatory risks.

The information contained in this document is not, and under no circumstances is to be construed as, an advertisement or any other step in furtherance of a public offering of shares in the United States or any province or territory thereof, where none of the issuers or their products are authorised or registered for

distribution and where no prospectus of any of the issuers has been filed with any securities commission or regulatory authority. No document or information in this document should be taken, transmitted or distributed (directly or indirectly) into the United States. None of the issuers, nor any securities issued by them, have been or will be registered under the United States Securities Act of 1933 or the Investment Company Act of 1940 or qualified under any applicable state securities statutes.

This document may contain independent market commentary prepared by WisdomTree based on publicly available information. Although WisdomTree endeavours to ensure the accuracy of the content in this document, WisdomTree does not warrant or guarantee its accuracy or correctness. Any third party data providers used to source the information in this document make no warranties or representation of any kind relating to such data. Where WisdomTree has expressed its own opinions related to product or market activity, these views may change. Neither WisdomTree, nor any affiliate, nor any of their respective officers, directors, partners, or employees accepts any liability whatsoever for any direct or consequential loss arising from any use of this document or its contents.

This document may contain forward looking statements including statements regarding our belief or current expectations with regards to the performance of certain assets classes and/or sectors. Forward looking statements are subject to certain risks, uncertainties and assumptions. There can be no assurance that such statements will be accurate and actual results could differ materially from those anticipated in such statements. WisdomTree strongly recommends that you do not place undue reliance on these forward-looking statements.

WisdomTree Issuer ICAV

The products discussed in this document are issued by WisdomTree Issuer ICAV (“WT Issuer”). WT Issuer is an umbrella investment company with variable capital having segregated liability between its funds organised under the laws of Ireland as an Irish Collective Asset-management Vehicle and authorised by the Central Bank of Ireland (“CBI”). WT Issuer is organised as an Undertaking for Collective Investment in Transferable Securities (“UCITS”) under the laws of Ireland and shall issue a separate class of shares ("Shares”) representing each fund.

The Fund is described in a Key Information Document (KID) or Key Investor Information Document (KIID) for UK investors, and the prospectus of WT Issuer (“WT Prospectus”). A copy of the WT Prospectus and the KID / KIID is available, for EEA/UK only, in English at www.wisdomtree.eu. Where required under national rules, the KID will also be available in the local language of the relevant EEA Member State. Investors should read the WT Prospectus before investing and should refer to the section of the WT Prospectus entitled 'Risk Factors' for further details of risks associated with an investment in the Shares.

The summary of investor rights associated with an investment in the fund is available in English on WisdomTree Europe's website. WisdomTree Management Limited may decide to terminate the arrangements made for the marketing of its collective investment undertakings. In such circumstances, shareholders in the affected EEA Member State will be notified of this decision and will be provided with the opportunity to

redeem their shareholding in the fund free of any charges or deductions for at least 30 working days from the date of such notification.

For Investors in Switzerland:

This document constitutes an advertisement of the financial product(s) mentioned herein.

The prospectus (in English only) and the key investor information documents (KID) (in German, French and Italian) are available from WisdomTree's website: https://www.wisdomtree.eu/en-ch/resource-library/prospectus-and-regulatory-reports

For WisdomTree UCITS products only: the representative and paying agent of the ETPs in Switzerland is Société Générale Paris, Zurich Branch, Talacker 50, PO Box 5070, 8021 Zurich, Switzerland. The prospectus, the key investor information documents (KIID), the articles of association and the annual and semi-annual reports of the sub-funds are available free of charge from the representative and paying agent. As regards distribution in Switzerland, the place of jurisdiction and performance is at the registered seat of the representative and paying agent. Some of the sub-funds referred to in this document may not have been registered with the Swiss Financial Market Supervisory Authority ("FINMA"). In Switzerland, such sub-funds that have not been registered with FINMA may only be available to Qualified Investors.

For Investors in France:

The information in this document is intended exclusively for professional investors (as defined under the MiFID) investing for their own account and this material may not in any way be distributed to the public. The distribution of the Prospectus and the offering, sale and delivery of Shares in other jurisdictions may be restricted by law. WT Issuer is a UCITS governed by Irish legislation, and approved by the Financial Regulatory as UCITS compliant with European regulations although may not have to comply with the same rules as those applicable to a similar product approved in France. The Fund has been registered for marketing in France by the Financial Markets Authority (Autorité des Marchés Financiers) and may be distributed to investors in France. Copies of all documents (i.e. the Prospectus, the Key Investor Information Document, any supplements or addenda thereto, the latest annual reports and the memorandum of incorporation and articles of association) are available in France, free of charge at the French centralizing agent, Societe Generale at 29, Boulevard Haussmann, 75009, Paris, France. Any subscription for Shares of the Fund will be made on the basis of the terms of the prospectus and any supplements or addenda thereto.

For Investors in Malta: This document does not constitute or form part of any offer or invitation to the public to subscribe for or purchase shares in the Fund and shall not be construed as such and no person other than the person to whom this document has been addressed or delivered shall be eligible to subscribe for or purchase shares in the Fund. Shares in the

Fund will not in any event be marketed to the public in Malta without the prior authorisation of the Maltese Financial Services Authority.