

# Thematic investing series

Positioning portfolios for long-term  
transformational change

June 2026

# Nuclear energy

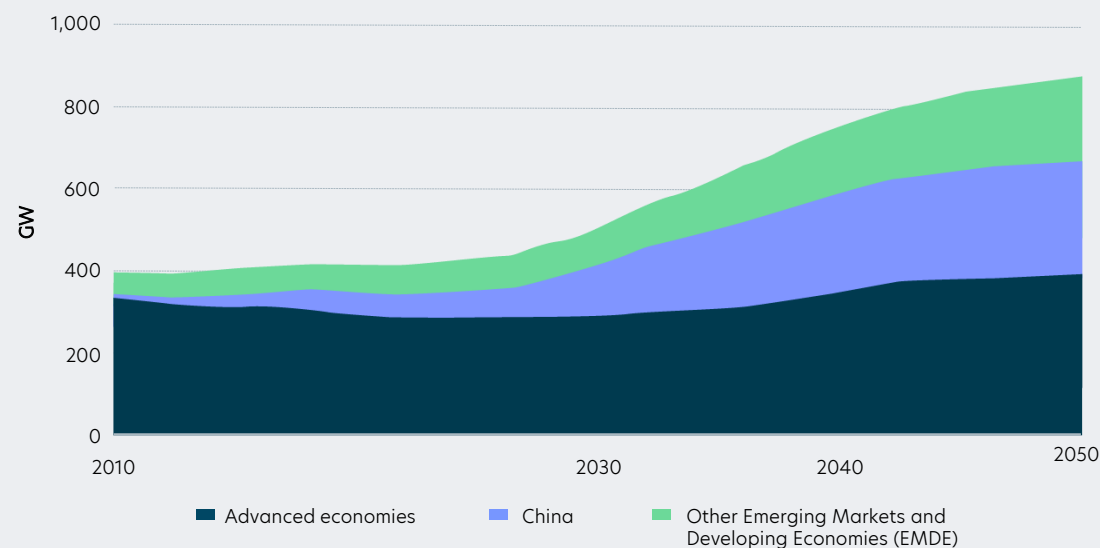
A strategic answer to energy security



# Power security has become strategic again

- Nuclear is one of the few scalable sources of firm, low-emissions baseload power, which makes it more relevant in a world focused on resilience as well as decarbonisation.
- The IEA expects nuclear generation to reach a record-high in 2025, with more than 70 GW of new nuclear capacity already under construction globally.
- More than 40 countries now support expanding nuclear's role in their energy systems, which is a major policy shift from the post-Fukushima period.
- Support is broadening further. The coalition backing the goal to triple global nuclear capacity by 2050 has continued to expand beyond the original COP28 signatories.
- In Europe, nuclear has regained strategic relevance as policymakers seek more independence from imported gas and more control over long-term power affordability.

“ Nuclear is back in the conversation because the world needs not only clean energy, but dependable energy. ”



Source: International Energy Agency (IEA)

# AI and data centres add a new demand angle

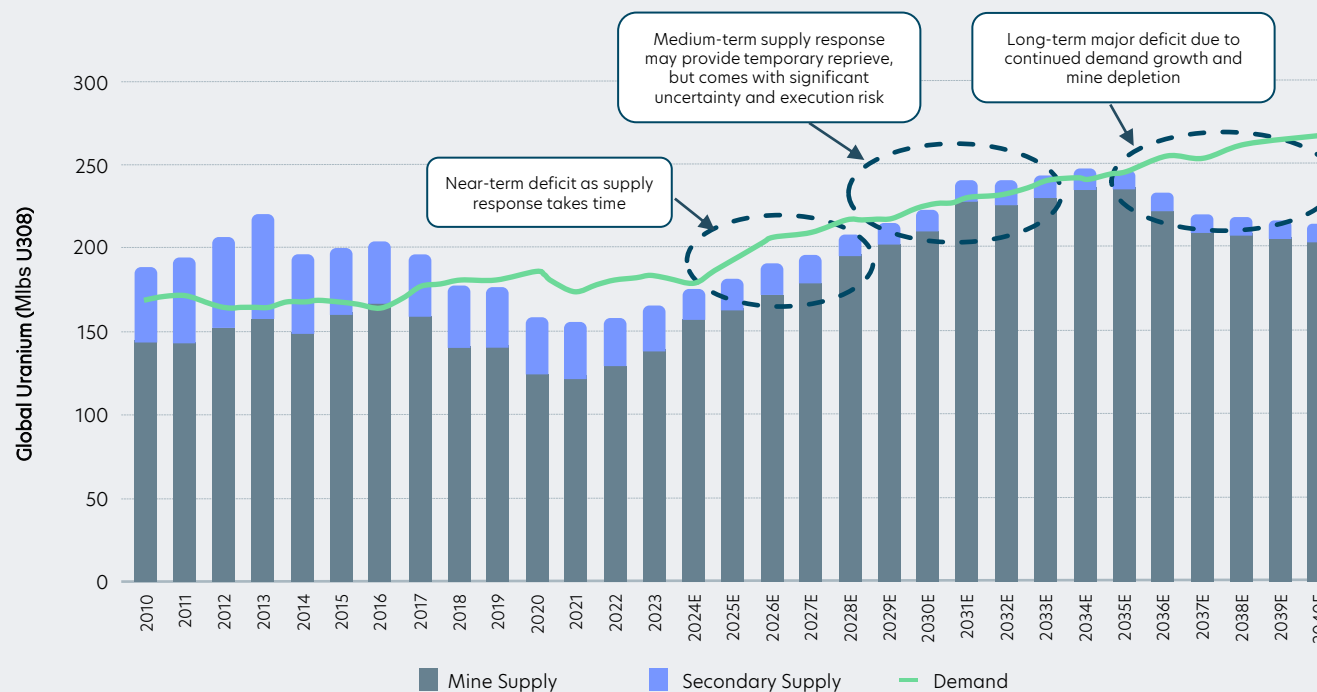
- Data centre electricity demand is projected to rise from roughly 460 TWh in 2024 to over 900 TWh by 2030 in the IEA base case, with further growth thereafter.
- Nuclear already supplies around 15% of the electricity physically consumed by data centres globally, and its role rises later in the decade as SMRs and other nuclear supply arrangements emerge.
- Recent agreements underline the direction of travel. Examples include Microsoft backing the restart of Three Mile Island Unit 1, Google ordering SMRs from Kairos Power, and Amazon signing multiple nuclear-related agreements.
- This matters because AI changes the nuclear story from a pure policy theme into a commercial power-availability theme, especially in markets where grid capacity is constrained.



# Nuclear revival is going to need a lot more uranium

- As the world re-embraces nuclear energy to meet rising demand for clean electricity, Royal Bank of Canada (RBC) forecasts global uranium requirements grow +50% by 2040.
- Uranium is currently in short-supply through the late-2020s as a supply response takes time, while increased supply into the early-2030s will only be just enough to cover uranium forecasted needs and comes with significant execution risk.

**Uranium S&D to remain tight through next decade with severe deficit forming by mid-2030s**



Source: UxC, WNA, IAEA, Company reports, RBC Capital Markets estimates.

# Uranium prices are starting to reflect the increased demand

- However, nuclear power generation is different from traditional power generation.
- A very small amount of uranium produces a very large amount of electricity. That means even if the price per pound of uranium rises materially, the cost per MWh increases only modestly.
- Unlike gas, coal or oil plants, the fuel (uranium) cost is only about 10-15% of the Levelised Cost of Electricity (LCOE), compared to ~60% in gas fired plants.
- Once built, nuclear plants are usually run at high utilisation because their marginal cost remains low relative to their fixed cost base.
- Demand forecasts for uranium thus depend largely on installed and operable capacity, regardless of economic fluctuations.

Uranium price chart (2022 to latest)



# Continue the Nuclear Energy conversation

Power security has become strategic again. The full publication explores where value may accrue, what risks still matter, and how investors can think about implementation.



## Be selective

The theme is becoming more investible, but adoption is likely to develop in stages.



## Look for pockets of opportunities

We see value accruing to a couple of bright spots within the nuclear supply chain.



## Manage the risks

Regulation, trust, cost thresholds remain key constraints.

Speak to your client advisor for the full Nuclear Energy thematic publication

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## In the full publication

- Maturity framework and timing assessment
- Value-chain opportunity map
- Bull, base and bear scenario analysis
- Key risks across regulation, safety, cost
- Portfolio implementation considerations

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