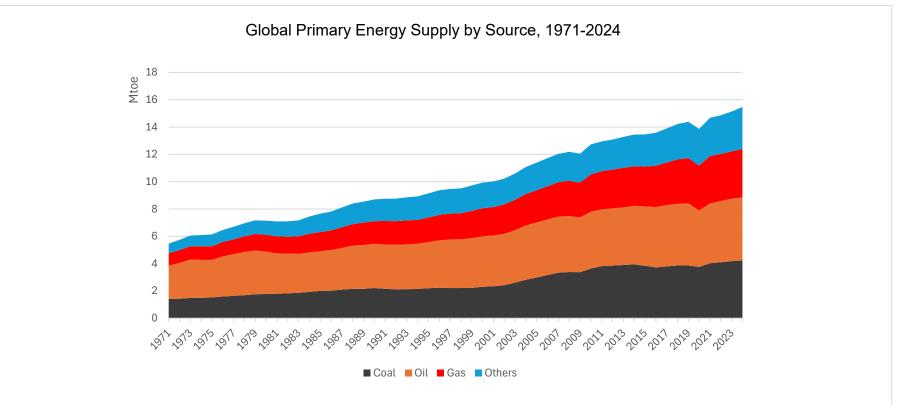


# The Role of Coal in the Transition

Carlos Fernández Alvarez, Senior Coal Analyst 34<sup>th</sup> Clean Coal Day International Symposium | Tokyo, JAPAN | 4 September 2025

# Coal, with oil and gas, dominate today's energy landscape

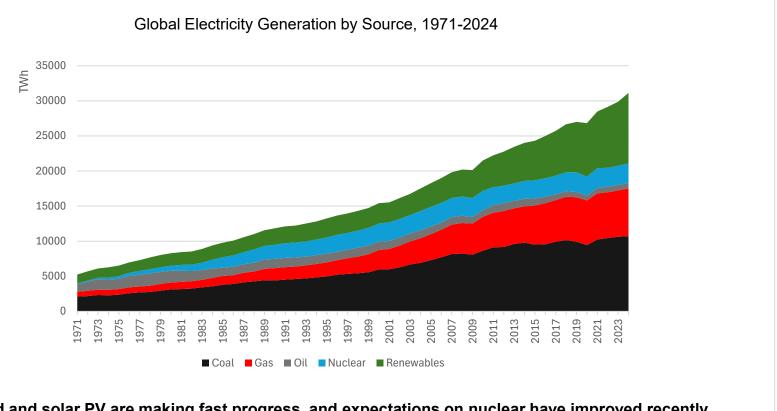




While the share of fossil fuels in the primary energy mix is being reduced, they still account for the majority of energy supply. Coal's share is around one quarter

# Coal remains the largest source of electricity generation in 2024



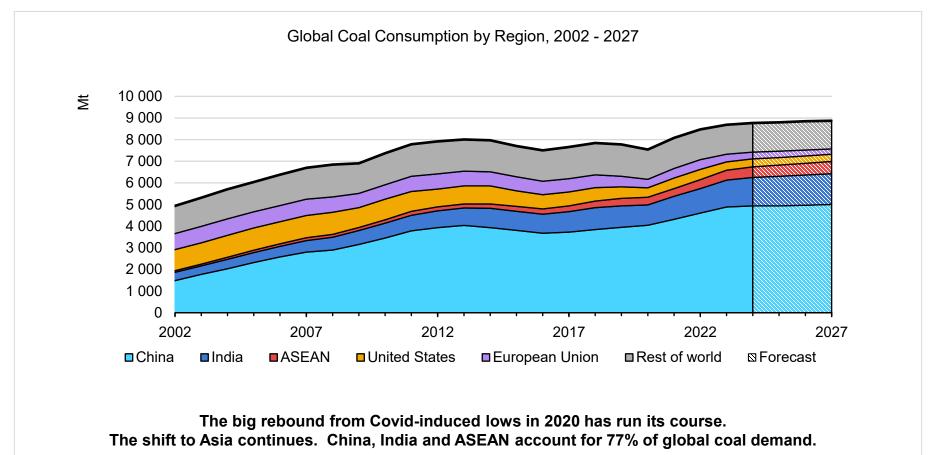


While wind and solar PV are making fast progress, and expectations on nuclear have improved recently, coal was still the largest source of global electricity in 2024.

#### A Structural Plateau of Global Coal Demand Ahead

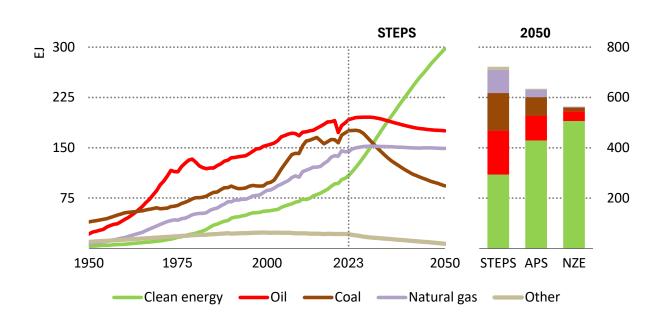


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# Global energy mix by scenario to 2050

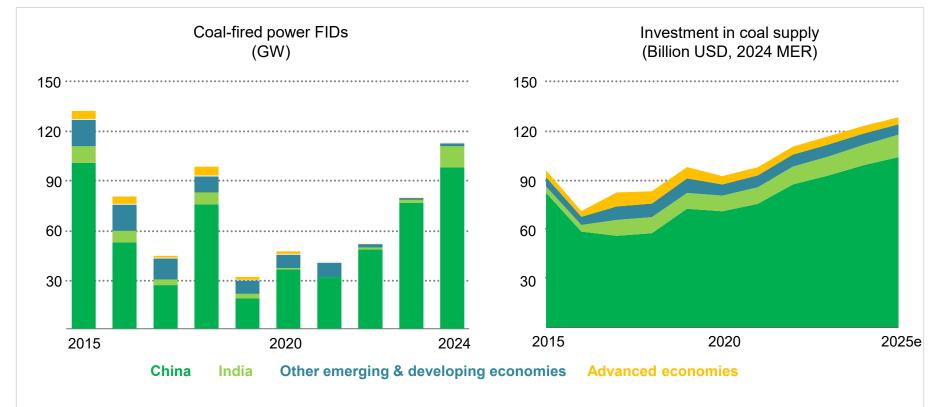




A scenario based on current policy settings sees clean energy poised for huge growth, while coal, oil and natural gas each reach a peak by 2030 and then start to decline

### Investment in coal is pushing steadily higher

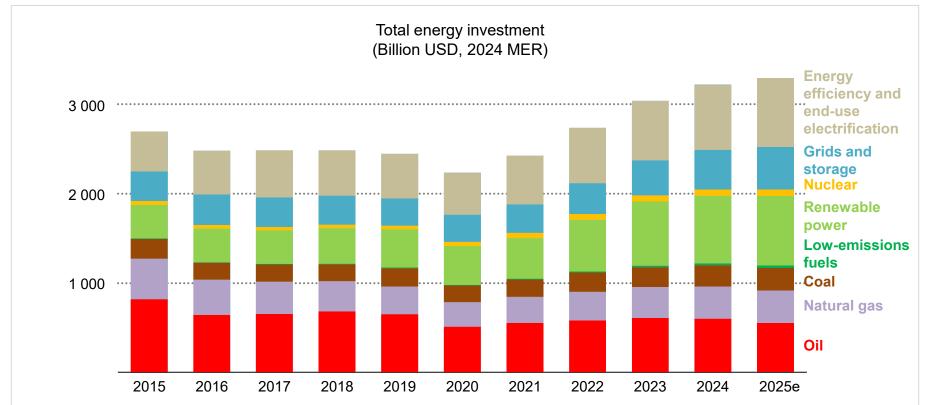




New construction starts in China took coal plant FIDs to their highest level since 2015. Investment in coal supply globally is now 25% higher than 10 years ago, driven largely by higher domestic needs in China and India.

### **Energy investment continues to rise amid economic uncertainty**





Around USD 2.2 trillion is set to go collectively to renewables, nuclear, grids, storage, low-emissions fuels, efficiency and electrification in 2025, twice as much as the USD 1.1 trillion going to oil, natural gas and coal.

#### **Key Takeaways**



- In 2024, coal was the second largest source of primary energy and the largest source of electricity generation globally
- Global coal demand reached an all-time high in 2024, driven by growth in China, India and few other Asian countries, more than offsetting decline in developed economies
- As things stand today, global coal demand is expected to plateau through to 2026. Renewables
  are expanding rapidly, however strong electricity demand growth makes room for coal-fired power
  generation
- Investment in coal power has increased in the last few years, whereas investment in coal supply is at record levels. China is the main driver
- However, the share of investment in fossil fuels –and so too, in coal- is declining, representing around one third of total energy investment in 2024
- The International Energy Agency, based on its analysis of markets, investments, policies and technologies, is ready to produce policy recommendations for a secure, affordable and clean energy future

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