



The new energy dynamic: Balancing demand, security and sustainability in an era of uncertainty

**Part one of our Energy, Utilities and Resources
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01

Balancing the trilemma in a fragmented world



In a new world energy order defined by shifting alliances, competing blocs and rising protectionism, governments and businesses are under mounting pressure to balance the energy trilemma of security, affordability and sustainability.



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The global energy transition is no longer a single, linear journey

– it is unfolding at different speeds across regions depending on national priorities and resource endowments.

While China stands at the centre of this transformation – accounting for around 60% of global renewable capacity¹ and dominating supply chains for batteries, electrolysers and solar modules – the United States is leveraging its hydrocarbon strength.

Europe, once the global frontrunner in clean energy, is now grappling with high costs and eroding industrial competitiveness. Its push for energy independence cannot rest on renewables alone; the current cost base and supply dependencies make this path increasingly fragile. Despite ambitious climate targets, energy-intensive sectors such as steel, chemicals and automotive are under growing pressure to shift production to lower-cost regions, notably the Middle East and Asia.



1. <https://iea.blob.core.windows.net/assets/0fo28d5f-26b1-47ca-ad2a-5ca3103d070a/Electricity2025.pdf>



Meanwhile, the Middle East is evolving into a system builder rather than merely an energy exporter – investing heavily in renewables, grid modernisation and clean industrial zones. The region’s approach balances energy diversification with economic transformation, aligning with national visions that link industrialisation, localisation, and energy resilience.

02

Supply chain opportunities and constraints



The reconfiguration of global supply chains is reshaping energy geopolitics. Today, access to critical materials, clean technology manufacturing, and logistics capacity has become a key determinant of the pace and cost of the transition. The development of battery storage technologies is increasing demand for lithium, cobalt, phosphate, nickel and manganese.² Concentration risks remain high, with China dominating global lithium refining and rare earth processing, while new bottlenecks are emerging around grid equipment, inverters and other essential components. Recent disruptions in global shipping routes, including the Red Sea, have further heightened volatility, delaying projects and driving up costs across the energy value chain.

For the key economies of the GCC, this creates both risk and opportunity. With strong industrial capacity, access to low-cost energy and expanding port infrastructure, the region can become a resilient manufacturing and re-export hub for energy technologies – from solar components to green hydrogen derivatives.



2. <https://www.pwc.com/gx/en/industries/energy-utilities-resources/publications/mine.html>

Special economic zones in the Middle East and green industrial hubs are early examples of how the region is embedding supply chain localisation into its transition strategy.



However, these gains depend on the availability of skilled talent and open trade frameworks. Expanding partnerships with Asia, Africa and Europe through modernised trade agreements will be critical to ensuring that supply chain integration supports regional resilience rather than dependency. The GCC's growing network of free trade agreement (FTAs) and comprehensive economic partnership agreement (CEPAs) reflects clear momentum in this direction.



03

Availability of capital and investment flows

The International Energy Agency's World Energy Investment 2025 report shows that the world is now investing twice as much money in clean energy as it is in fossil fuels. Total capital flows to the energy sector are expected to reach US\$3.3trn in 2025, a 2% real increase on 2024. Of this, around US\$2.2trn will go to renewables, nuclear, grids, storage, low-emissions fuels, efficiency and electrification, while US\$1.1trn will be invested in fossil fuels including oil, natural gas and coal.³ But a significant portion of this investment is concentrated in advanced economies and China, leaving many emerging markets and developing economies under-supported.

The Middle East, however, stands out as an exception. In the region, governments have launched a US\$200bn renewable-energy investment programme, signalling the region's commitment to large-scale clean-energy deployment.⁴ The region also benefits from fiscal strength from hydrocarbons, which continues to fund diversification and green projects. And its sovereign wealth is deploying capital into renewables, grid modernisation and low-carbon industrial ventures.

Still, attracting sustained investment requires policy clarity and long-term visibility. Markets reward economies that offer predictable offtake contracts, consistent regulatory frameworks, and integration between public and private actors. Europe's struggle to maintain competitive energy pricing shows how unpredictable subsidies and shifting policy targets can deter investment.

In contrast, GCC economies' stable planning cycles, coupled with investor-friendly regulation and sovereign backing, have accelerated their clean-energy pipeline.



3. <https://www.iea.org/reports/world-energy-investment-2025>

4. <https://www.irena.org/Energy-Transition/Partnerships/CIP/Middle-East>

04

Policy and
governance
as enablers



Policy choices – from carbon pricing to localisation mandates – are the critical fourth pillar shaping global energy pathways. In Europe, mechanisms such as the Emissions Trading System (ETS) and the Carbon Border Adjustment Mechanism (CBAM) are reshaping industrial trade dynamics. However, they also expose cost disparities that challenge competitiveness, making Europe’s transition as much an exercise in industrial policy as it is about climate ambition.

In the United States, energy policy has become increasingly politicised, creating uncertainty over the long-term direction of the Inflation Reduction Act and renewable incentives.

In contrast, the Middle East’s policy evolution has been marked by continuity. The GCC states are building “policy-led ecosystems” that link industrial diversification, energy efficiency, and foreign investment attraction. The United Arab Emirates’ (UAE) Energy Strategy 2050, Saudi Arabia’s Circular Carbon Economy, and Oman’s Green Hydrogen Strategy together show how GCC policymakers are turning long-term energy visions into actionable frameworks that balance growth, sustainability, and competitiveness.

Regional coordination under the Arab Coordination Group (ACG) and GCC Interconnection Authority (GCCIA) further reinforces energy security through shared grid infrastructure, though large-scale grid connections to Europe remain unlikely in the near term due to regulatory, technical, and geopolitical reasons. Instead, the Middle East’s future role will likely centre on exporting clean molecules and hosting energy-intensive industries – from green steel and aluminium to chemicals – that relocate in search of low-cost, low-carbon energy.

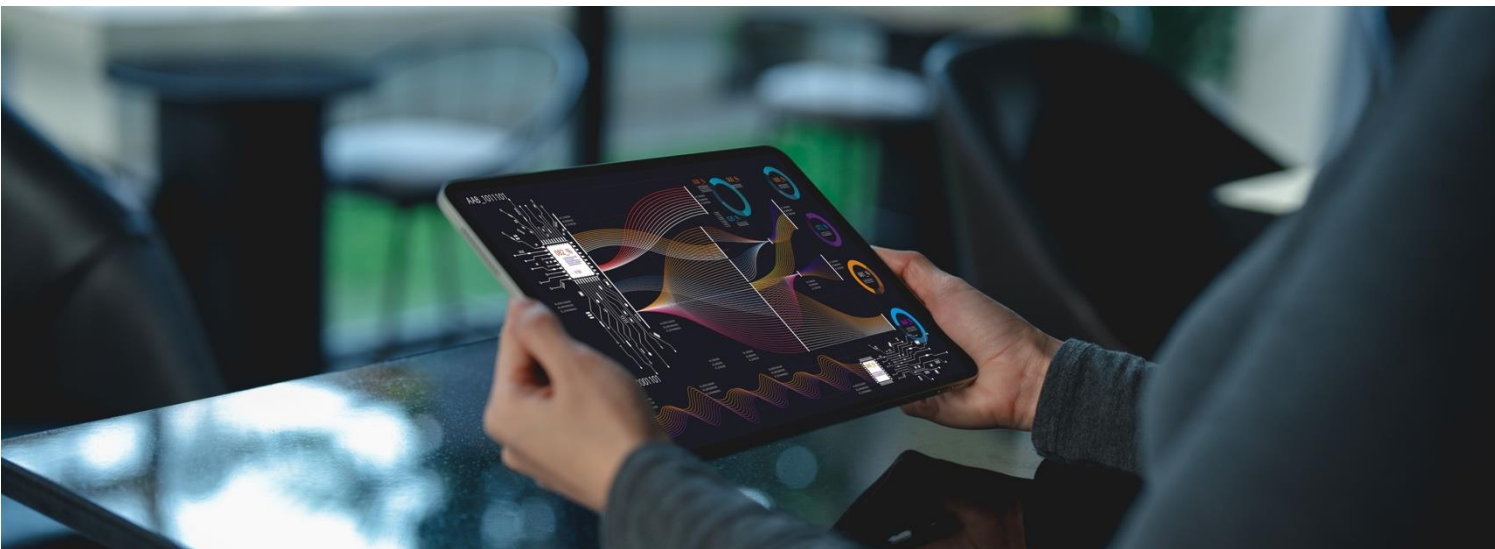


05

Betting on the future:
Where will capital flow?



Energy companies, industrial players and investors face a critical question: where to place their bets in an increasingly complex and uneven energy transition. While opportunities are vast, success depends on policy stability, financing models, regional strengths and collaboration between technology providers and heavy industry. The Middle East is emerging as the system integrator — converting capital strength, resource advantage, and policy coherence into long-term industrial competitiveness. Investors are already recalibrating toward regions that combine low-cost renewable resources, industrial infrastructure, and regulatory predictability. Ultimately, the winners of the transition will not be those who move fastest, but those who align affordability, policy stability, and innovation to create enduring economic value.



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