



Future
of Energy

Future of Energy & Energy Sector

The global shift in energy generation, supply, and demand entails technological, economic, and social changes to create a sustainable and reliable energy system. This involves modifying energy production, consumption, and infrastructure to reduce emissions, enhance efficiency, and improve security, while recalibrating the energy mix to include both fossil and non-fossil fuels.

Resources

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Future of Energy Hub



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The transformation of the global energy sector is redefining how energy is produced, delivered, and consumed. The energy mix is recalibrating - shifting from centralized traditional generation towards more sustainable and distributed models. Across the sector - from renewables to oil and gas, nuclear, energy storage, infrastructure, and new technologies, each component plays a vital role in shaping the architecture of a sustainable global economy.

The opportunities are significant. Scaling renewable generation, expanding hydrogen and carbon capture, advancing nuclear technologies, investing in grid modernization, and deploying digital platforms and other innovations are creating new investment opportunities and strengthening resilience across the energy supply chain. Companies that position themselves at the forefront of this transition will define the future of energy.

The pace of investment is accelerating, but uncertainty around energy policy, regulation, trade measures, and available incentives persists. Integrating renewable resources continues to test system stability, while competition for critical materials adds volatility. As markets evolve, traditional assumptions about pricing, supply, and infrastructure are being reshaped.



"Timely responses, intricate knowledge of the sector and the risks facing the sector. Ability to make connections across the business and tie that into advice."

*Legal 500 UK: Energy and Natural Resources,
Infrastructure (Project finance and development), 2026*

How can we help?

At Hogan Lovells, we work with clients across the global in the energy sector to take advantage of opportunities and manage complexities in equal measure. Our support includes:

- **M&A, equity investment, project development, and financing** across renewables, nuclear, oil and gas, carbon capture, microgrids, energy storage, and infrastructure.
- **Regulatory and policy advisory** to anticipate and respond to changing landscapes and evolving requirements.
- **Strategic transactions and joint ventures** for traditional and new energy technologies.
- **Risk mitigation and disputes** covering supply chain, cross-border investment, and long-term contracting.

With deep energy sector experience across the globe, we provide the market insight and know-how to help clients navigate the complexities of the energy sector transition while capturing its opportunities.



"Hogan Lovells' attention to detail and work on some of the most complex topics is amazing."

Chambers Global: Energy, Nuclear (Regulatory & Litigation), 2025