EIC's five golden rules for a healthy energy supply chain

Energy systems are capital-intensive and long-lived (power stations, grids, pipelines, refineries, data centres).

Infrastructure lasts decades, beyond electoral cycles or short-term market trends.

Many countries struggle to align policy, investment, and industrial strategy for cost-effective outcomes.

A robust supply chain:
- Sustains industrial competitiveness
- Supports innovation
- Ensures resilience to energy shocks

EIC identifies five "golden rules" for a healthy energy supply chain

1. Consistent energy policy
2. Technological diversity
3. Structured project pipelines
4. Strategic innovation funding
5. Active export engagement

Examples from Norway, UAE, Germany, UK, and US illustrate these principles.

1

Consistent Energy Policy and Long-Term Industrial Strategy

- Energy policy must be stable, coherent, and aligned with long-term industrial goals.
- Policy uncertainty increases investment risk, raises costs, slows deployment.

Successful examples:

- **Norway:** Stable regulation, carbon pricing, disciplined reinvestment → near-fully renewable electricity + competitive oil & gas.
- **China:** Multi-decade planning, strategic aenergy, grids, EVs → predictable deployment.risk, raises costs, slows deployment.

Challenges:

- **UK:** Ambitious climate targets but policy inconsistency undermines delivery.
- **US:** Policy reversals, fragmented governance, protectionism, absence of binding targets → high-risk investment environment.

Lesson:

Consistent policy + durable industrial strategy reduces risk, attracts capital, and transforms ambition into tangible economic advantage.

2

A Role for All Technologies and Integrated Supply Chains

- Energy security depends on technology diversity: renewables, nuclear, natural gas, conventional fuels.
- Diversified energy mix → resilience to supply shocks, price volatility, geopolitical risks.
- Resilient supply chains require shared infrastructure, skilled labor, and manufacturing capacity.
- Restrictive technology policies risk weakening the broader supply chain (e.g., UK's oil & gas policies).

Example:

UAE maintains domestic capacity across multiple technologies → continuity, skilled labor retention, successful project delivery.

Key takeaway:

Robust, multi-technology policy and supply chain are essential; single-technology bets risk long-term security.

3

A Pipeline of Profitable Projects at Scale

- Ambition alone is insufficient; a clear pipeline of commercially viable projects is essential.
- Investors need profitability clarity; supply chain firms need demand certainty.

Successful example:

- UAE aligns policy, finance, and industrial strategy → profitable energy projects across technologies → attracts investment, retains labor, strengthens domestic supply chain.
- Benefits extend beyond energy: local manufacturing, low-content encouragement, workforce training, job creation, economic growth.

Challenge:

UK suffers from underdeveloped project pipelines → supply chains weaken, investor confidence drops, deployment delayed.

Lesson:

Structured project pipelines are vital for net zero delivery and industrial competitiveness.

4

Funding for R&D, Start-Up, Scale-Up, and Re-Industrialization

- Innovation drives energy transition, but requires sustained funding across all stages.
- **UK:** Abundant talent but inconsistent support slows deployment of new technologies.
- **Germany:** Long-term funding for research, start-ups, scale-ups, and reindustrialization → effective deployment, competitive costs, maintained supply chains, preserved global market share.
- Strong innovation funding also enhances international influence and national expertise.

Lesson:

Reliable, long-term financial support across the innovation pipeline is essential for resilient, cost-effective, and technologically advanced energy systems.

5

Exporting and International Trade as Strategic Levers

- No energy supply chain is truly healthy without a global dimension.
- Exporting firms outperform purely domestic competitors in growth, profitability, resilience, and workforce retention.
- Government interventions (export finance, trade fair subsidies, embassy support) help open international markets.
- Oil and gas remain central to integrated supply chains and economic resilience.UK's oil & gas policies).
- **UK:** Limited energy exports → lost industrial capability, weakened supply chains, reduced influence.

Lesson:

Embedding export strategy in energy policy enhances resilience, global market position, and economic rewards.

Summary

EIC's five golden rules provide a blueprint for resilient energy supply chains:

- Consistent policy and industrial strategy
- Integrated technological diversity
- Structured project pipelines
- Comprehensive innovation funding
- Active international engagement

Countries following these rules (Norway, UAE, Germany) achieve:

- Faster energy deployment
- Stronger industrial capacity
- Greater economic and geopolitical influence

Countries that do not (UK, US) face:

- Underinvestmen
- Weakened supply chains
- Slower climate progress

A healthy, resilient, and globally connected energy supply chain is essential for managing the energy trilemma and securing long-term prosperity.