Hormuz crisis shows clean energy is key to reducing the economic cost of fossil fuel dependence

The Energy Transitions Commission Secretariat warns crisis-driven responses that reinforce fossil fuel dependence risk locking economies into higher costs and long-term vulnerability. Accelerating clean energy deployment can displace the equivalent of all Hormuz flows over the next few years and is the most durable route to economic resilience and energy security.

THREE KEY FINDINGS

- **Fossil fuel systems transmit shocks; clean energy systems absorb them.** Fossil systems depend on continuous commodity flows through concentrated chokepoints and transmit disruptions instantly through global prices. In contrast, 70–90% of clean energy costs are upfront capital. Once built, solar, wind, batteries and grids deliver energy for years, regardless of market disruption.
- **If sustained, elevated fossil fuel prices could add $1-2 trillion in annual gross oil and gas expenditure.** That is comparable to the annual clean energy investment gap of $1.5 trillion, between current investment levels of $2 trillion and the $3.5 trillion needed to build a net zero and more resilient energy system all the way through to 2050.
- **New fossil infrastructure now would lock in the next shock.** New oil and gas fields typically take 5–10 years to reach production. Rooftop solar and heat pumps can scale within months. EVs are already structurally reducing oil demand. EV deployment alone could displace around 5 mb/d by 2030 and 9–10 mb/d by 2035, equivalent to roughly half of pre-crisis Hormuz oil flows. On top of already surging clean technology demand, a coordinated clean energy response could displace 20% of global oil and over 30% of global gas demand by 2035, permanently reducing exposure to future shocks.

London, 15 May 2026 — The Energy Transitions Commission Secretariat today published *Lessons on Energy Security after the Hormuz Crisis*, warning the political reflex to expand fossil fuel infrastructure risks reinforcing the same vulnerabilities that caused this crisis. The report calls on governments to accelerate the clean energy transition as the most effective response to fossil fuel price volatility, import dependence and geopolitical disruption.

The scale of the shock

The Hormuz closure has disrupted **18.4 million barrels per day** of oil — the largest supply shock on record, exceeding the 1973 Arab oil embargo — alongside **20% of global LNG trade** and **one-third of all globally traded fertilisers**. The effects are most acute in emerging and import-dependent economies. Around 84% of crude oil and more than 80% of LNG transiting Hormuz is destined for Asian markets.

Asian benchmark oil prices rose from around $70/bbl to $90-120/bbl in March, while LNG prices rose from around $10-12/MMBtu before the crisis to above $25/MMBtu. Higher oil and gas prices feed directly into transport, food, household energy and industrial costs, hitting lower-income households and small businesses first. The disruption is costing Europe almost €500 million per day.

Damage to Qatar's Ras Laffan LNG facility, with capacity down 17% and repairs estimated at 3–5 years, indicate that disruption may structurally reshape global LNG markets.

ETC estimates the crisis could add **$1–2 trillion** in additional gross fuel expenditure to the global economy in 2026 alone, if current prices are sustained: not for more energy, but for the same energy at higher cost.

Countries with clean power are better protected

This is the first major fossil fuel shock in which scalable alternatives exist across the main sources of energy demand. Spain, with **57% renewable electricity**, recorded the EU's lowest energy price increases post-Hormuz, with prices at **$50/MWh**. Singapore, with **95% gas-dependent** power generation, faced prices above **$200/MWh in April**. The difference is system design, not geography.

> *"The current crisis shows that fossil fuel dependence is not only a climate risk but also an economic and strategic vulnerability. Clean energy systems are more distributed, more efficient and less exposed to the price shocks created by continuous dependence on traded fuels."*
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> **Adair Turner, Co-Chair, Energy Transitions Commission**

Five win-win government responses

Though the pace and mix of deployment will vary by national circumstances, a coordinated response across renewables, electrification, green fuels, fertilisers and efficiency could fully displace oil and gas exports from the Strait of Hormuz by 2035.

> *"For decades we have built an energy system that is wasteful, insecure, and volatile. Three quarters of the world's population depend on fuels they do not control, priced in markets they do not influence, vulnerable to shocks they cannot prevent. The defining question now is whether governments act to build a more resilient system or to sustain one which is already vulnerable to disruption."*
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> **Jules Kortenhorst, Co-Chair, Energy Transitions Commission**

The ETC identifies five actions that reduce exposure to fossil fuel volatility while strengthening energy security and affordability.

- **Accelerate renewable electricity deployment.** Utility-scale and distributed renewables can displace gas in power systems, particularly when paired with batteries, grids and flexibility.

- **Electrify road transport.** EV deployment is one of the largest available levers to reduce oil dependence, with potential to cut global oil import spending by more than USD 600 billion per year.

- **Electrify heating and cooking.** Heat pumps and electric cooking can reduce reliance on gas and LPG, while improving household affordability.

- **Scale green fuels and fertilisers.** Cleaner fertiliser production, better nutrient management and low-emissions fuels can reduce exposure in food, shipping and aviation systems.

- **Improve energy efficiency across the economy.** Building retrofits, smart energy systems, stronger equipment standards, materials efficiency and operational efficiency can reduce exposure immediately and at low cost.

Short-term trade-offs must still be managed. Targeted support for vulnerable households may be necessary, and some countries may temporarily increase use of existing coal or LNG infrastructure. But governments should avoid blanket fossil fuel subsidies, new coal capacity, large-scale upstream oil and gas expansion, long-lived LNG lock-in, and weakening carbon pricing signals.

The market is already responding

Consumers and businesses are already shifting away from expensive and unreliable fossil fuels. Chinese solar exports doubled in March over February; **50 countries** recorded all-time high solar PV imports — India around **+140%**, Ethiopia around **+390%** year-on-year. EU EV registrations rose nearly **50%** year-on-year in March. In India, LPG shortages triggered a **3×–30× surge** in induction cooktop sales.

Download *Lessons on Energy Security after the Hormuz Crisis* here.

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About the ETC: The Energy Transitions Commission (ETC) is a global coalition of leaders from across the energy landscape committed to achieving net-zero emissions by mid-century, in line with the Paris climate objective of limiting global warming to well below 2°C. This paper was produced by the ETC Secretariat and should not be taken as members agreeing with every finding or recommendation. The Energy Transitions Commission is hosted by SYSTEMIQ Ltd.

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