From Crisis to Transition: Building ASEAN's Resilient Energy Future

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Topics

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Short-term Barriers

Hormuz Shock and ASEAN's Structural Vulnerabilities

02

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The Scale and Complexity of ASEAN's Carbon Neutral Transition

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Integrated Agenda

Design Short-term Resilience and Long-term Transition Together

1. SHORT-TERM BARRIERS

Hormuz Closure: Simultaneous Shocks to ASEAN

- The Hormuz closure disrupted ~20 mb/d of global crude supply, pushing Brent to $116/bbl. Around 20% of LNG supply and 1.2 mb/d of naphtha were also affected.
- ASEAN felt the shock across various channels: rising prices, capital outflows, currency depreciation, and GDP headwinds.
- ~60% of ASEAN's oil imports come from the Middle East, and ASEAN is projected to become a net LNG importer by 2027.

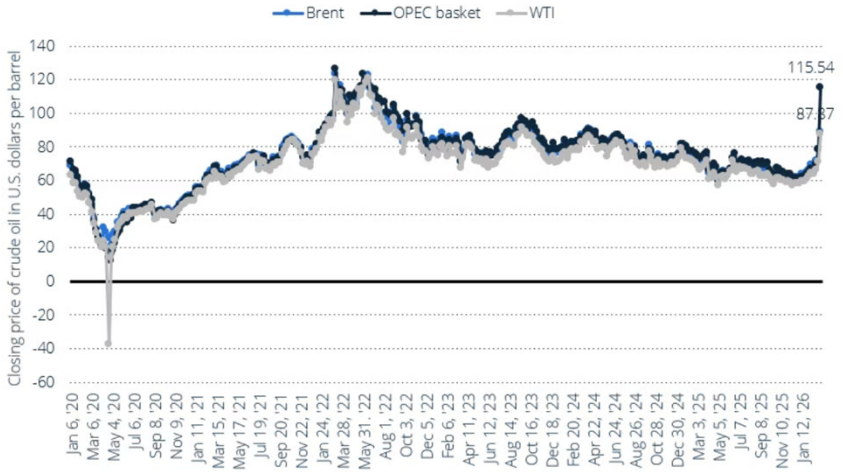
Strait of Hormuz

Global exports transiting (2024): 35% Crude · **26%** NGLs · **20%** LNG · **16%** Fertilizer

20.3M bbl/day halted · Approx 80% of Hormuz oil to Asia

Source: EIA / Vortexa

Oil price surge



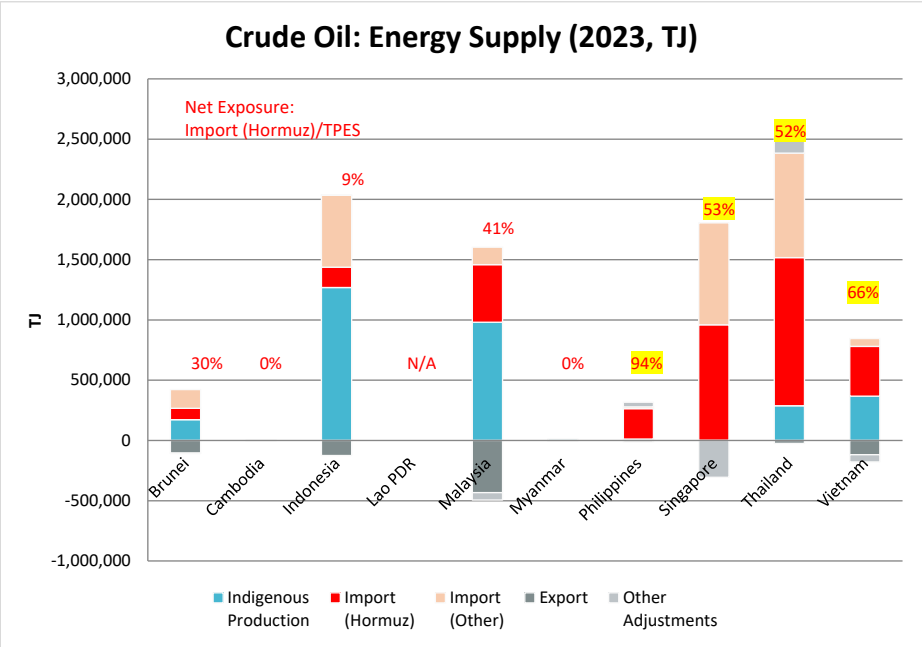
$116/barrel (+73%) — Mar-2026

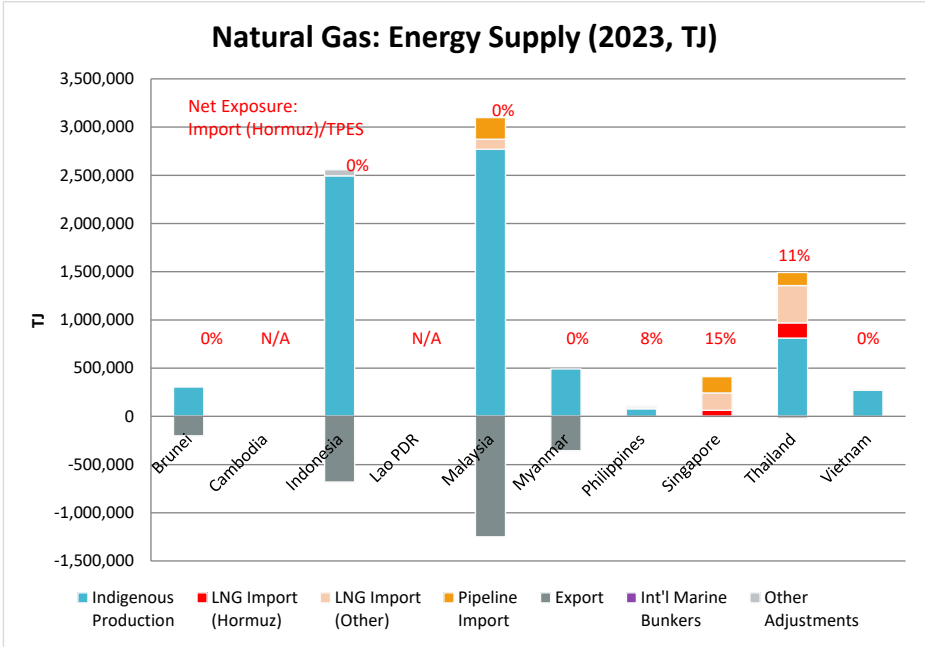
Source: OPEC; BNN Bloomberg

1. SHORT-TERM BARRIERS

Starting Points Differ: Hormuz Exposure by Country

- Exposure varies sharply across ASEAN. The Philippines' net exposure of Hormuz crude oil reaches 94%.
- Supply buffers differ, while most ASEAN members have limited reserves. Effective resilience depends on domestic production levels and alternatives beyond what stockpile days alone suggest.





Sources: IEA World Energy Balances 2023; Hormuz share from UN Comtrade 2023

1. SHORT-TERM BARRIERS

Market Structure as the Key Transmission Variable

Market Type	Typical ASEAN Examples	How the Shock Is Transmitted	Gasoline / Fuel Price Change	Electricity Price Change	Main Impact Channel
1. Liberalized / Market-Linked	Singapore; Philippines (fuel); partly Vietnam (fuel)	International prices pass through quickly into domestic fuel and energy prices	**+20% to +100%+** within weeks	**+2% to +10% initially**, with risk of larger wholesale spikes if uncapped	Consumers and inflation absorb the shock directly
2. Single-Buyer / Managed Pass-Through	Thailand; Malaysia (power); partly Vietnam (power)	Prices adjust through formulas, tariff reviews, and stabilization funds	**+15% to +45%** for exposed fuels; protected fuels may rise less	**+1% to +5% initially**	Shock is shared between consumers and public finances
3. State-Controlled / Monopolized / Highly Administered	Indonesia; Brunei; Cambodia (electricity); Myanmar; partly Laos	Government suppresses or delays pass-through through subsidies, controls, or rationing	**0% to +30% initially** for protected fuels; **+30% to +70% later** for non-subsidized; black-market prices can reach **+100%+** in severe shortage cases	**Usually 0% to +2% officially** in the short term	Shock shifts to budget pressure, utility losses, shortages, or rationing

Liberalized Systems: Fastest Transmission

In market-linked systems, international price movements pass through rapidly to end-users. Singapore saw pump prices rise roughly **20%** within weeks, while regulated electricity tariffs still climbed ~**2.1%** as the gas-price shock entered the quarterly formula. In the Philippines, fuel costs surged sharply, directly hitting household budgets and transport costs. **Speed and visibility** define this model's vulnerability.

Managed Systems: Slower, Shared Burden

Thailand illustrates the single-buyer pattern: retail fuel prices rose strongly, but electricity tariffs increased far less because the Ft mechanism and public stabilization tools absorbed part of the pressure. The immediate inflation impact is lower, but **fiscal and quasi-fiscal stress accumulates** as governments deploy tariff controls and clawback mechanisms to prevent a full pass-through.

Administered Systems: Shock Disguised, Not Eliminated

Indonesia kept subsidized fuel prices and Q2 2026 electricity tariffs unchanged, reducing retail inflation but shifting costs into fiscal compensation mechanisms. In more fragile administered systems such as Myanmar, price suppression without adequate buffers produces not stability but **rationing and scarcity** — the shock re-emerges as a supply disruption rather than a tariff increase.

Strategic Takeaway

ASEAN's Hormuz vulnerability is not merely a resource-import issue — it is a **market-design and resilience issue**. Liberalized systems absorb the shock through higher prices; single-buyer systems spread it through mixed pass-through and public cushioning; monopolized systems transfer it into fiscal pressure or physical shortages. Stronger **stockpiling, coordinated emergency mechanisms, and regional energy connectivity** are therefore essential regardless of market model.

1. SHORT-TERM BARRIERS

Responses Are Moving — But Remain Largely Short-Term Stabilisation

- The impact is materialising as simultaneous price spikes and supply anxiety. The Philippines declared a National Energy Emergency. Aviation fuel shortages disrupted flights across several countries.
- Responses centre on near-term stabilization, such as maximising coal output, emergency LNG spot procurement, fuel tax suspension, and maintaining subsidies. Each reflects domestic constraints rather than a coordinated regional strategy.

Country	Confirmed Impacts	Key Policy Responses
Indonesia	• ~35% crude import dependency (~20% from Middle East); limited oil storage (21–25 days) • Gasoline & LPG panic-buying reported; government urging restraint	• ~IDR 400 bn subsidy/reserve budget maintained to suppress retail prices (post-Lebaran review planned) • B50 biodiesel mandate advanced to 2026 as import substitution measure
Malaysia	• Net energy exporter: relatively resilient domestically • High oil prices raise subsidy burden; prolonged conflict seen as a downside risk	• Petrol subsidy expanded (RM 700 M → RM 2 B) • Fertiliser supply measures activated; macroeconomic stability & domestic supply continuity prioritized
Philippines	• National Energy Emergency declared (EO 110, 24 Mar) • Fuel prices surging across households, industry & transport; Diesel prices approximately doubled from February levels; Aviation fuel shortages disrupted flights	• Price/supply stabilisation under EO 110: electricity spot market suspended; coal plants on full dispatch • Emergency crude supply from Japan (140k bbl delivered; +1M bbl additional ordered) • Coal fixed-rate & stabilisation measures applied
Thailand	• Supply anxiety amplifying price pressure on households & agriculture	• EGAT war room activated; demand monitoring established • Emergency LNG spot procurement (3–4 cargoes); Mae Moh coal plant ramped up; hydro imports from Laos expanded • Oil product exports suspended from March; Oil Fuel Funds used for price suppression
Vietnam	• Fuel price spike disrupting business & daily life; Gasoline >50%, diesel >70% above late-Feb levels in some regions • Airline fuel rationing reported	• Fuel tax suspension (until 15 Apr; extension to 30 Jun under consideration) • Refinery utilisation raised; domestic supply prioritised over exports • EVN directed to maximise coal output & stockpile; Vin Group reportedly seeking RE+BESS transition approval instead of LNG power project

1. SHORT-TERM BARRIERS

Three Structural Vulnerabilities This Crisis Has Exposed

1

High dependence on fossil fuel imports

Fossil fuels met nearly 80% of Southeast Asia's rising energy demand since 2010, with the majority sourced through imports. This reliance on traded commodities is the foundational source of vulnerability to external shocks.

2

Concentration of import origins

Around 60% of ASEAN's oil imports come from the Middle East. A single chokepoint — the Strait of Hormuz — thus creates a simultaneous risk for the entire region that individual country responses cannot resolve.

3

Underdeveloped regional coordination

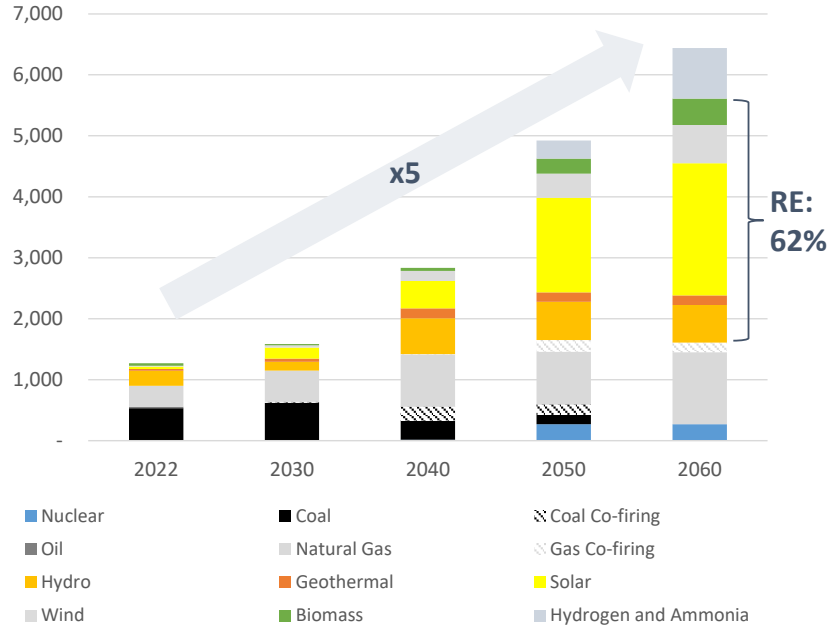
While frameworks such as APSA exist, assistance remains voluntary and commercial. The Trans-ASEAN Gas Pipeline (TAGP) relies largely on bilateral arrangements. A multi-country, multi-fuel shock of this scale reveals the limits of the current architecture.

2. LONG-TERM PATHWAY

ASEAN's Carbon Neutral Pathway: Scale and Complexity of the Transition

- ERIA/IEEJ modelling shows ASEAN's Carbon Neutral pathway requires power demand to grow **five-fold** by 2060, with renewables reaching **62%**. **Solar PV** plays the leading role.
- **Temporal and spatial mismatch of VRE** limits further penetration. **Natural gas** bridges the gap through 2050, keeping the system stable and affordable during the transition.
- Beyond gas, **CCS and hydrogen** are essential to decarbonise what renewables cannot reach. Reducing their costs through international cooperation and institutional frameworks is the critical enabler.

ASEAN Power Generation in CN Scenario [TWh]



Source: ERIA (2025), Decarbonisation of ASEAN Energy Systems: Optimum Technology Selection Model Analysis up to 2060 - Updated 2025

3. INTEGRATED AGENDA

The Crisis and the Transition Share the Same Structural Problems

- Short-term crisis response and long-term transition investment address the same structural problems and are most effective when designed together.
- Gas remains central through 2050, and import concentration does not automatically resolve as ASEAN transitions.

Structural Vulnerability	Hormuz Crisis: short-term symptom	CN Transition: long-term implication
1. High dependence on fossil fuel imports	Import disruption translates directly into supply shock and price spike	Transition reduces dependency over time, but exposure persists through the transition period
2. Concentration of import origins	Middle East LNG disruption → refinery shutdowns and power supply stress	Gas demand remains high under CN; import diversification remains a priority
3. Underdeveloped regional coordination	APSA enhancement under active discussion; current framework is voluntary	Cross-border CCS, hydrogen trade, and APG all require stronger multilateral institutions

3. INTEGRATED AGENDA

Two-Layered Response: Short-term Stabilisation and Structural Transition

Short- and Mid-term (-2030)

1 Coal backstop — efficiently

Utilise spare coal capacity as emergency adequacy buffer; improve plant efficiency; frame as a managed transition measure

2 Biomass and biofuel

Strengthen locally available biomass power and biofuel; keep intra-ASEAN and Global South bioenergy trade open

3 Reduce fuel demand and end-use efficiency

Deploy EV/hybrid in transport; reduce diesel in islands; replace LPG with biomethane at household level

4 Operationalise APSA and TAGP

Move APSA from agreement to real-time activation; reposition TAGP with LNG integration and regional gas reserve mechanism

Structural (2030 and Beyond)

A Diversify long-term procurement

Expand oil and LNG sourcing to US, Australia, Africa; reduce single-route Hormuz dependence structurally

B Scale up ASEAN Power Grid (APG)

Expand LTMS multilateral power trade; fuel-neutral framework preserving national sovereignty

C Emerging technology coordination

Regional legal and institutional frameworks for cross-border CCS and hydrogen trade; multilateral hub development

D RE + storage + SMR readiness

Solar-led VRE scale-up supported by storage and smart grids; SMR readiness through feasibility studies, regulation, and human capital

Common to both: regional coordination ▪ investment acceleration ▪ stronger multilateral frameworks

4. CONCLUSION

Conclusion:
Energy Security and Decarbonisation

- This crisis has made clear that energy security and decarbonisation are not separate agendas. Fossil fuel import dependence is the common root of today's vulnerabilities and tomorrow's transition challenge.

- ASEAN has the renewable potential, gas and CCS resources, and a growing industrial base to pursue a more resilient energy future. The remaining task is to translate these assets into effective regional coordination and sustained investment.

- **The short-term and the long-term are most effective when designed as one agenda.**