

ERIA POLICY BRIEF

From President Marcos' Call to Action: Strengthening Oil and Gas Stockpiling Systems in ASEAN

Key Messages:

1. ASEAN must urgently address its exposure to energy supply shocks. Rising import dependence and reliance on the Strait of Hormuz create immediate vulnerability, while current stockpiling levels remain inadequate and uneven across member states.
2. ASEAN should prioritise the rapid expansion of strategic oil and gas stockpiles as a first-line defence. Stockpiling is the only instrument that can deliver immediate physical supply, stabilise markets, and maintain economic continuity during disruptions.
3. ASEAN should operationalise joint stockpiling as the core regional strategy. Member states should move beyond fragmented national approaches and establish shared stockpiling arrangements with exporting partners, supported by hybrid models (SPR, commercial obligations, ticketing, and PPPs).
4. ASEAN should move immediately from analysis to implementation. Priority actions include conducting stockpiling gap assessments, establishing regional co-ordination mechanisms, structuring bankable joint projects, and mobilising blended financing.

This policy brief assesses ASEAN's increasing exposure to energy supply disruptions, particularly through critical chokepoints such as the Strait of Hormuz, and underscores the urgent need to strengthen regional resilience. Rising import dependence, combined with limited and uneven oil and gas stockpiling capacity, leaves the region highly vulnerable to immediate supply shocks that market mechanisms alone cannot address.

Building on the policy direction articulated by President Ferdinand R. Marcos Jr., the brief calls for a shift from analysis to implementation through co-ordinated and scalable stockpiling strategies. It identifies joint stockpiling as the central pillar, complemented by hybrid models and diversified financing mechanisms. Strengthening stockpiling systems is therefore essential not only to ensure supply continuity and stabilise markets, but also to enhance ASEAN's long-term energy security and economic resilience.

I. Introduction: Energy Security, the Strait of Hormuz Shock, and the Policy Call of President Ferdinand R. Marcos Jr.

Energy security underpins ASEAN's economic growth, industrial competitiveness, and regional integration. Over the past 2 decades, the region has become a dynamic economic hub, driven by expanding manufacturing, trade, and production networks. Indeed, ASEAN plays a key role in global value chains, which depend on stable and affordable energy supplies.

Rapid growth has led to rising energy demand. The International Energy Agency (IEA) estimates ASEAN's oil import dependency rose from about 57% in 2010 to 66% in 2024 and will continue increasing (IEA, 2024a). Several economies are already highly import-dependent, including Singapore, the Philippines, and Thailand. Furthermore, ASEAN is projected to become a net natural gas importer by in 2027 or shortly afterwards due to rising demand and declining domestic production (IEA, 2024b).

A significant share of ASEAN's oil and LNG imports passes through the Strait of Hormuz, a critical global chokepoint. The U.S. Energy Information Administration estimates that 20–21 million barrels per day transit this route, about 20% of global oil consumption, with roughly one-quarter of global LNG trade also flowing through it (EIA, 2024), leaving suppliers vulnerability to geopolitical disruptions.

On 15 April 2026, Philippines president Ferdinand R. Marcos Jr. (15 April 2026) called for strengthening ASEAN's energy security through strategic stockpiling, including joint arrangements. He emphasised moving from analysis to implementation, undertaking stockpiling gap assessments, and enhancing public-private co-ordination. The recommendations of President Marcos position stockpiling as a core pillar of ASEAN's resilience against supply shocks.

II. The Strategic Role of Oil and Gas Stockpiling in Energy Security

Strategic stockpiling plays a critical role in energy security by providing both an immediate response mechanism during disruptions and a broader foundation for economic and strategic stability. Unlike market-based adjustments, which might take weeks or months to materialise, stockpiles can be deployed instantly to maintain supply, particularly in the initial stages of a crisis (EIA, 2024; IEA, 2024a). Disruptions along this route can quickly constrain supply, trigger price volatility, and create cascading impacts across refining, power generation, petrochemicals, and logistics (ERIA, 2026). In such situations, delayed imports can disrupt refinery operations, reduce fuel availability, and strain power systems, affecting transport,

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industry, and commerce. Strategic stockpiles provide immediate supply continuity (ERIA, 2015; Elliott, 2015).

IEA requires member countries to maintain at least 90 days of emergency reserves (IEA, 2024b). ERIA studies similarly demonstrate that stockpiling strengthens resilience by affording time for supply diversification and policy responses (ERIA, 2017; 2024). Beyond emergency response, stockpiling also delivers significant economic and strategic benefits. It ensures continuity of supply for critical sectors, as seen during the 2026 Strait of Hormuz disruption, when countries with sufficient reserves were able to sustain refinery operations and avoid shortages (ERIA, 2026). It also helps stabilise prices by reducing panic-driven volatility, as co-ordinated stock releases can moderate price spikes and limit inflationary impacts, particularly in import-dependent economies (IEA, 2024a). Moreover, strategic stockpiling enhances investor confidence by reducing supply uncertainty and supporting stable industrial operations (ERIA, 2024), while also strengthening geopolitical leverage by enabling countries to better withstand external pressures and negotiate more effectively. As highlighted in ERIA research, stockpiling should be viewed not only as an emergency safeguard but also as a strategic instrument that underpins economic stability, market credibility, and regional resilience (ERIA, 2017; 2022).

III. ASEAN Oil and Gas Stockpiling Gap: Current Status and Challenges

The limited and uneven level of emergency oil stockpiling capacity across ASEAN presents an important constraint for the region (Table 1). Unlike IEA member countries, which are required to maintain emergency reserves equivalent to 90 days of net imports, most ASEAN Member States rely primarily on commercial inventories, partial stockholding obligations, or medium-term targets rather than fully established strategic petroleum reserves (IEA, 2024a; 2024b).

Available data indicate that only a few ASEAN countries are highly transparent about oil stock levels. Thailand reports approximately 67 days of total oil stock, and Lao PDR maintains approximately 40 days combining commercial and strategic reserves (ACE, 2024). Other Member States report targets for lower levels, rely on commercial inventories mostly, or are still developing national stockpiling frameworks with targets extending towards 2030–2050 (Table 1). Taken together, these data suggest that regional emergency reserves remain below internationally recognised benchmarks and unevenly distributed amongst member states.

Table 1. Latest Publicly Available Stockholding Status in ASEAN

| ASEAN Member State | Latest Stockholding Status (Concise) | Assessment vs 90-day Benchmark |
|--------------------|---|--------------------------------|
| Brunei Darussalam | 31 days oil stock; LPG 7–14 days | Below benchmark |
| Cambodia | Target: 30 days commercial + 5 days SPR by 2030 | Limited; target-based |
| Indonesia | 24 days gasoline; 30-day buffer target by 2035 | Below benchmark |
| Lao PDR | 40 days total (15 commercials + 25 strategic) | Below benchmark |
| Malaysia | 3.6 million barrels reserves + small operational stocks | No clear 90-day system |
| Myanmar | 30–45-day target; long-term 90-day target | Progressing but limited |
| Philippines | Contingency plan under development; no clear days | Progressing |
| Singapore | No minimum stock obligation (market-based system) | No formal SPR requirement |
| Thailand | 67 days total stock | Closest to benchmark |
| Viet Nam | Target 75–80 days by 2030; 90 days by 2050 | Strong target; current unclear |

Source: ERIA analysis based on all references listed, 2026.

ERIA research highlights several feasible approaches to strengthening regional stockpiling capacity, including national strategic reserves, joint stockpiling arrangements, ticket stockpiling systems, commercial stockholding obligations, and public-private partnership storage facilities (ERIA, 2018; 2022). Amongst these options, joint stockpiling co-operation with crude-exporting countries offers a cost-effective pathway to expand emergency reserves.

IV. Strategic Oil and Gas Stockpiling Options for ASEAN

ASEAN faces a structural gap in energy security due to limited and uneven stockpiling capacity. Addressing this gap requires a portfolio of complementary stockpiling mechanisms, each suited to different time horizons, fiscal constraints, willingness and institutional capacities. International experience and ERIA's analytical work suggest that no single model is sufficient; rather, ensuring both short-term responsiveness and long-

term resilience requires a multifaceted approach (ERIA, 2015; 2018; IEA, 2024a).

National Strategic Petroleum Reserves (SPR) provide the most reliable foundation. These government-controlled reserves, stored domestically in facilities such as underground caverns or tank farms, can be deployed rapidly during disruptions. Countries such as Japan and the Republic of Korea demonstrate their effectiveness, with Japan maintaining reserves exceeding 250 days of net imports under strong institutional frameworks (IEA, 2024a). However, high capital costs and technical requirements limit their rapid expansion (ERIA, 2015; Elliott, 2015).

Commercial stockholding obligations offer a more flexible and cost-effective option in the short term. By requiring oil companies to maintain minimum inventory levels, governments can leverage existing infrastructure while shifting financial responsibility to the private sector. Thailand provides a practical example of how such measures can increase stock

levels (IEA, 2024b). While government can implement this model quickly, it provides less direct government control during emergencies and may lead to higher consumer costs (ERIA, 2015; 2018).

Ticket stockpiling systems add flexibility by allowing countries to secure access to oil stored abroad. Widely used amongst OECD countries, this approach reduces the need for domestic investment while maintaining compliance with stockholding requirements (IEA, 2024a). Despite its cost efficiency, it depends on external partners and requires strong legal frameworks to ensure access during crises (ERIA, 2015; 2018).

Joint stockpiling stands out as the most strategic and scalable option for ASEAN. By sharing reserves between importing and exporting countries, it lowers investment costs, enhances supply reliability, and strengthens regional co-operation. ERIA analysis highlights successful examples of Middle Eastern crude stored in Asia (ERIA, 2022). In the event of disruptions, such as those affecting the Strait of Hormuz, joint stockpiling improves resilience by diversifying storage and reducing reliance on a single route (EIA, 2024; ERIA, 2026).

Public-private partnership (PPP) models further enable long-term expansion by mobilising private investment and improving operational efficiency. With strong regulatory frameworks and clear risk-sharing arrangements, PPPs can integrate storage with existing infrastructure and complement SPR and joint stockpiling. Together, these approaches form a coherent and scalable strategy to strengthen ASEAN's energy security (ASEAN Secretariat, 2020; ERIA, 2024).

V. Financing the Oil and Gas Stockpiling Strategy: Towards Scalable and Bankable Models

Financing large-scale energy stockpiling requires a diversified and layered approach, as reliance on a sole source is neither feasible nor efficient. A blended financing architecture, combining public, private, and multilateral resources, is essential to scale investment while ensuring affordability and sustainability (ERIA, 2024).

Public finance plays a catalytic role in initial stages, covering land, regulation, and initial infrastructure for strategic reserves. However, fiscal constraints mean it cannot meet total investment needs (ERIA, 2015). Blended finance is therefore critical, using concessional funding and risk-sharing tools to improve project bankability and attract private capital, particularly in emerging markets (ERIA, 2024). Development finance institutions (DFIs) provide long-term financing, technical support, and credibility, especially for cross-border projects (ASEAN Secretariat, 2020). In this context, joint stockpiling emerges as a strategic priority, enabling ASEAN Member States to share infrastructure, reduce costs, and strengthen collective energy security. Such arrangements are particularly suitable for DFI support due to their regional nature and need for co-ordinated risk-sharing. A government-to-government model can be especially effective for joint stockpiling initiatives, combining concessional loans, equity participation, and host-country contributions to reduce costs and enhance technical standards (ERIA, 2022).

Private sector participation through PPPs remains essential for efficiency and scale, requiring clear regulations and risk-sharing mechanisms (ERIA, 2024). Overall, integrating public finance, DFIs, blended finance, sovereign wealth funds, and private investment, while prioritising joint stockpiling as a regional strategic asset, provides a coherent pathway to strengthen ASEAN's energy security and resilience.

VI. Conclusion

Rising import dependence and concentrated supply routes – particularly through the Strait of Hormuz – have made the region increasingly vulnerable to external shocks. The recent disruption scenario highlights that the key challenge is no longer a lack of risk awareness, but insufficient and poorly co-ordinated stockpiling capacity to respond in real time.

Strategic oil and gas stockpiling therefore emerges as the most immediate and effective way to close this gap. Stockpiles provide instant physical supply, ensuring continuity in critical sectors, stabilising prices, and sustaining economic confidence during crises. More importantly, they should be viewed not as a passive reserves, but as strategic assets that strengthen ASEAN's economic resilience and geopolitical positioning.

The policy direction articulated by President Ferdinand R. Marcos Jr. provides timely momentum to accelerate this transition. By prioritising joint stockpiling, adopting a hybrid model, and mobilising innovative financing, ASEAN can move from fragmented national approaches towards a co-ordinated and scalable regional system.

Achieving this will also require collaboration with external partners and alignment with complementary regional initiatives, such as the Asia Zero Emission Community (AZEC), which has announced a US\$10 billion financing framework – 'Partnership on Wide Energy and Resources Resilience Asia' (POWER Asia) – on 15 April.

Strengthening stockpiling is therefore not only about managing short-term disruptions; it is a strategic imperative for securing ASEAN's long-term economic stability and deepening regional integration in an increasingly uncertain global energy landscape.

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