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ENERGY MARKETS OUTLOOK

LPG STORAGE & SHIPPING: The Two Pillars of the Global South's Blueprint for LPG Security

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The Two Pillars of the Global South's Blueprint for LPG Security: Storage & Shipping

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From Storage to Value Creation

LPG markets across the Global South are at a critical crossroads. Demand for liquefied petroleum gas (LPG) is rising rapidly as millions of households transition away from traditional biomass fuels such as charcoal and firewood toward cleaner and more efficient energy sources. Yet, this growing demand is colliding with dangerously inadequate infrastructure. Limited terminal capacity, poor road connectivity, and constrained shipping routes have left many developing countries vulnerable to supply disruptions and price volatility.

To secure long-term access and stability, emerging markets must strengthen two essential pillars: storage capacity and shipping resilience. Together, these pillars provide the foundation for reliable, affordable, and sustainable energy access, vital for social welfare, industrial development, and economic growth.

Expanding Storage: From Vulnerability to Stability

Across Africa, South Asia, and parts of Latin America, LPG storage remains fragmented, small-scale, and outdated. Many import terminals operate with capacities of less than 10,000 tons, forcing frequent resupply and raising exposure to global freight fluctuations. Such inefficiency drives up consumer prices and weakens national energy security.

Expanding large-scale LPG storage is therefore the first step toward stability. When governments provide the right conditions — political stability, land concessions, transparent regulation, and clear pricing mechanisms — investors respond with confidence. Examples from Morocco, Egypt, and Turkey demonstrate this dynamic vividly. Each country leveraged a combination of public-private partnerships and regulatory clarity to attract capital and expertise, transforming their domestic LPG landscapes.

To achieve true cost efficiency, storage tanks must be built at sufficient scale — typically between 25,000 and 44,000 tons per site. These facilities reduce per-unit storage costs, enable better supply management, and provide a buffer against international price swings. But infrastructure alone is not enough. Governments must also invest in associated assets such as pipelines, jetties, bottling plants, and last-mile distribution networks.

A clear, predictable policy environment remains crucial. When public authorities commit to long-term planning, streamlined permitting, and fiscal incentives, private operators can confidently deliver multi-decade projects. Without such collaboration, supply chains remain fragmented, expensive, and exposed to global shocks — perpetuating the cycle of vulnerability that has long hindered energy access in the developing world.

Shipping Resilience and Regional Integration

Storage without efficient transport connectivity cannot secure energy supply. Shipping and inland distribution are equally vital components of a stable LPG ecosystem. Between 2025 and 2027, more than 150 new Very Large Gas Carriers (VLGCs) are expected to enter service — a rare opportunity for Africa and South Asia to align new storage investments with an expanding global shipping fleet.

Yet, most coastal nations in these regions still struggle with congested ports, outdated terminals, and underdeveloped hinterland logistics. Trucks navigate poor roads, causing delays, product losses, and inflated delivery costs. To unlock the full benefit of expanded storage, governments must prioritise modern transport corridors, including road upgrades, rail links, and multimodal transport routes connecting coastal hubs to major population centres.

Every dollar invested in logistics multiplies the benefit of storage expansion. Establishing regional LPG hubs — for example, in Morocco, Nigeria, Kenya, or Tanzania — could generate economies of scale, reduce dependency on single supply routes, and enable cross-border trade. These hubs would act as import, blending, and distribution centres, supporting not only national markets but also landlocked neighbours.

Long-term offtake contracts between governments, traders, and distributors can secure throughput for terminals, stabilise freight demand, and strengthen investor confidence. Similarly, coordinated regional frameworks can harmonise technical standards, customs procedures, and tariffs, transforming fragmented national efforts into continental resilience platforms. By integrating shipping, storage, and market policies across borders, the Global South can achieve the scale and efficiency needed to compete in global energy markets.

Financing the Transition: Partnerships and Policy Certainty

Financing remains the greatest obstacle to large-scale LPG infrastructure development. Most governments in the Global South face fiscal constraints and cannot independently fund the construction of terminals, fleets, or inland storage facilities. This is where multilateral and blended finance models become essential.

Institutions such as the African Development Bank (AfDB), World Bank, and International Finance Corporation (IFC) increasingly recognise LPG as a legitimate transition fuel — one that bridges the gap between traditional biomass and future renewable energy systems. Supporting LPG aligns with global climate and health objectives, as it reduces deforestation, lowers greenhouse gas emissions from open fires, and improves indoor air quality.

Blended finance mechanisms, combining concessional loans with private capital, can de-risk large projects and attract long-term investors. Development partners are more likely to engage when governments commit to transparent tendering, reliable data, and measurable social benefits.

Policy certainty is just as important as funding. Investors require stability in tariffs, import duties, and safety codes. Governments can enhance bankability by offering duty relief on imported equipment, guaranteeing long-term offtake agreements, and aligning energy policy with broader industrial strategies.

The experiences of India and Egypt highlight what success looks like. Through coherent policy frameworks and strong coordination between public authorities and private operators, both countries managed to expand access rapidly — achieving near-universal household LPG coverage and securing supply through diversified import and storage networks within just a few years.

Social and Environmental Dimensions

The transition to LPG is not merely a technical or economic issue; it is also deeply social. Clean cooking is essential for public health, gender equality, and environmental protection. Each year, around 3.2 million people die prematurely due to indoor air pollution from burning traditional biomass. Replacing these fuels with LPG could save millions of lives and protect forests from unsustainable harvesting.

India's Pradhan Mantri Ujjwala Yojana (PMUY) programme illustrates the transformative power of affordability. By subsidising connections and initial refills for low-income households, the government enabled mass adoption and improved the health and welfare of millions of women and children. Similar schemes could be replicated across Africa through creative fiscal design, micro-financing, and international donor support.

Environmental advocacy must evolve as well. The LPG industry should coordinate a unified communications campaign to present LPG as part of the global energy transformation rather than a legacy fossil fuel. When framed as a transitional solution that complements renewables, LPG can attract broader political and social backing.

Public-private partnerships that unite policymakers, financiers, and operators are essential to scale such initiatives. By ensuring that affordability and sustainability move hand in hand, the Global South can achieve clean cooking access for all without compromising economic progress.

Conclusion: From Fragmentation to Resilience

Expanding LPG storage and shipping resilience across the Global South is not just an energy priority — it is a moral and developmental imperative. Reliable access to clean, affordable energy underpins education, healthcare, and industrial advancement. Each additional ton of LPG stored and each new vessel route opened strengthens the foundation for inclusive growth.

By investing in large terminals, developing efficient shipping networks, and coordinating cross-border policies, emerging economies can transform vulnerability into strength. Storage delivers stability, shipping ensures flexibility, and together they provide the backbone of lasting confidence and prosperity.

With political will, financial innovation, and international collaboration, the Global South can turn chronic energy insecurity into a story of opportunity and resilience — lighting homes, powering industries, and improving lives for generations to come. ■

Top 5 Recommendations

1. Mobilize Multilateral Financing for LPG Infrastructure
Local governments in Sub-Saharan Africa and South Asia often lack the fiscal capacity to fund large-scale LPG terminals, ports, and storage facilities. The roundtable emphasized leveraging multilateral development banks (AfDB, IFC, IEA, and World Bank) to co-finance strategic hubs. This approach would catalyze private investment by reducing capital risk and supporting credit guarantees for long-term terminal operations.

2. Strengthen Government-to-Government and Public-Private Partnerships
Panelists highlighted that G2G and corporate-government alliances are essential for scaling LPG access. Effective cooperation—between governments, traders, and infrastructure developers—can align national energy plans with private-sector capabilities. Such collaboration ensures regulatory support, open-access terminal models, and shared responsibility for logistics networks and safety standards.

3. Prioritize Policy Stability and Political Security
A recurring theme was that investment confidence depends on political stability and predictable policy frameworks. Investors need long-term clarity on pricing, subsidies, and customs rules to justify large storage projects. Governments must provide de-risking mechanisms, including revenue guarantees or concessional tariffs, to attract private players to frontier markets.

4. Integrate Downstream Bottling and Distribution with Storage Expansion
Storage alone cannot stabilize markets unless paired with bottling plants, distribution networks, and last-mile logistics. The roundtable proposed a vertically integrated model combining large coastal storage terminals with inland bottling partnerships. This ensures continuous LPG flow to households and SMEs—particularly in Africa, where infrastructure gaps are acute.

5. Treat LPG as Strategic Energy Infrastructure
Several participants argued that LPG should be classified as a strategic infrastructure asset, similar to LNG or refined fuels. Recognizing LPG as critical to energy security and clean cooking goals would unlock state incentives, climate-linked financing, and development aid. This status would justify subsidies, accelerate permitting, and prioritize road, port, and pipeline connectivity around LPG hubs.

Source: Insights were harvested from a workshop hosted by ENOC at the 13th Fujairah Energy Markets Forum on Oct. 1st, 2025, where 100 LPG market stakeholders participated in a 3-hour curated brainstorming session

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