

Executive Summary and Key Findings

Key Findings

- Transparent and active spot markets are essential for discovering a price that reflects the fundamentals of supply and demand. This discovery can provide the necessary incentives to build out additional natural gas storage capacity and larger volumes of variable liquefied natural gas (LNG) exports. The absolute volume of flexible LNG supply is still limited as current price benchmarks have yet to gain extensive support by market participants.
- China and India have become a source of substantial new LNG demand. Because both are large, even small shifts in demand patterns contribute to uncertainty and volatility in LNG prices. Other emerging Asian buyers of LNG are also adding to uncertainty as demand commitments are tied to short-term and seasonal requirements.
 - In most Asian countries, companies and governments have little direct experience in the operation and construction of LNG re-gasification facilities and connection to electric power plants and distribution networks. Relevant laws and regulations have not been fully developed, leading to delayed decision-making and project implementation.
 - As LNG bunkering advances globally, there is the potential that bunker fuel markets will become fragmented. Where maritime operators had a limited selection of fuel choices but ubiquitous availability, there now is the possibility of the inverse: many different fuel choices with gaps in coverage across the globe. For LNG bunkering to succeed, intergovernmental coordination is necessary.
 - Supply security has taken on new significance in Asian LNG markets as final investment decisions (FIDs) in new liquefaction capacity have been slow, despite the recovery in world crude oil prices and high natural gas demand in emerging markets such as China. This is of special concern for emerging markets in Asia with substantial prospective LNG growth.
 - Traditional patterns of risk allocation in financing new LNG export capacity are not adequate to meet recent market trends. Buyers and sellers may consider taking another type of risk that they have not taken so far to keep expanding liquefaction

capacity as the demand grows. Supportive policies from governments and new risk-sharing strategies are needed to bring more projects to FIDs.

- The Panama Canal Authority (ACP) recognises its critical role as a transit point and a potential bottleneck of the movement of US LNG exports to Asia. The ACP has eliminated unfair practices and physical limitations of their arrangements for LNG cargo passage.

Summary of Policy Recommendations

The joint study of the Institute of Energy Economics, Japan, and the Energy Policy Research Foundation, Inc. of the future of LNG in Asia recommends relevant stakeholders undertake the following initiatives to support a growing market for LNG in Asia.

- *Acceleration of Destination Restriction Removal:*
Removal of destination restrictions in LNG contracts amongs all market participants to stimulate spot markets and price discovery. Further actions by anti-monopoly authorities to review and follow up competition-limiting behaviours.
- *Development of a Reliable LNG Price Benchmark:*
An LNG price benchmark is a missing link of beneficial active spot trades and market liquidity and transparency. Removal of destination restrictions and a strong initiative by major players to identify a benchmark are required. Buyers and sellers require full transparency in the fundamentals of supply and demand.
- *Assistance to Private Investment in the LNG Value Chain:*
Steady efforts to assist private investment in the LNG value chain should be undertaken by revising the conditions for financial assistance provided by export credit agencies (ECAs) in Japan and in the US. Congressional reviews are ongoing to consolidate the US ECAs so they can more effectively assist private investments in new Indo-Pacific energy infrastructure projects.
- *Engagement with Emerging LNG Markets:*
Deeper engagement with emerging importers will help market participants to have a better understanding of the demand-side behaviours in emerging markets. Platforms

for policy discussions like the LNG Producer-Consumer Conference should be actively utilised to improve market predictability.

- *Development of a Fast-Tracking Tool for Project Development:*

A model project template that includes project structure, alternative patterns of risk allocation, and templates for contract terms and relevant documents for the project will help to fast-track the execution of LNG re-gasification facilities, especially in countries with no or limited experience with importing LNG.

- *Preparation for the Emergence of LNG Bunkering Demand:*

Governments can play an important role in the development of regulatory standards and infrastructure to facilitate the use of LNG for powering ocean vessels. An active and international effort is required to formulate and coordinate appropriate regulations for use and handling of LNG as a bunker fuel and to coordinate operations at different refueling centres.

- *Innovative Investment Plans to Ice-Break Stalled Final Investment Decisions:*

There is a dire need for innovative ideas to break the current final investment decision deadlock. One such idea may be a packaged investment covering wellhead natural gas production, pipeline, and liquefaction plant construction.

- *Collaboration to Avoid Bottlenecks in the Panama Canal*

Governments from the LNG-importing countries will collaborate to minimise bottleneck risk by active information sharing and policy discussions.