



Energy Security and LNG Trading

Agenda

- 1. Importance of gas to Singapore**
- 2. Diversification is key to energy security**
- 3. LNG trading can enhance energy security**

Importance of gas to Singapore

- **Gas is a critical part of Singapore's energy needs**
 - About 95% of Singapore's electricity is generated by gas
 - Only viable alternative to meet our energy needs is solar
 - But solar can at most meet 10 to 12% of our electricity needs



Gas will continue to be Singapore's main source of energy going forward

Diversification is Key to Energy Security

I. Having a mix of LNG and piped gas

- Singapore imports piped gas from Malaysia and Indonesia
- Since 2013, Singapore also imports LNG with the opening of first LNG Terminal
- Having a mix of both LNG and piped gas enhances resiliency
- Singapore also plans to build a second LNG terminal to provide another injection point for gas

Diversification is Key to Energy Security

II. Diversification of Supply Sources

- With LNG imports, Singapore increased gas supply sources to 6 countries
- Global LNG market will see new supply sources coming onstream.
- We hope to establish new supply sources to reduce exposure to unforeseen upstream disruptions

Diversification is Key to Energy Security

III. Portfolio of Contracts with Different Tenures

- Singapore aims to have a good mix of long term, medium term and short term or spot gas supplies.
- Spot and short term LNG provide buyers and sellers with flexibility to meet their prevailing needs.

Diversification is Key to Energy Security

IV. Procuring Tranche by Tranche

- Unexpected large shifts in global gas market can happen
- Singapore adopts a tranche-by-tranche approach to procure LNG
- This enables us to keep options open to take advantage of new opportunities arising from changing market conditions

Diversification is Key to Energy Security

V. Index Diversification

- Gas prices in Asia are mostly indexed to oil.
- Oil price volatility and regional gas price divergences highlighted importance of index diversification
- Adopting alternative price indices could help buyers mitigate price volatility

LNG trading can enhance energy security

- LNG trading can facilitate diversification and enhance energy security

- Four important requirements for LNG trading and gas price discovery to flourish
 - a) Removal of destination restrictions
 - b) Availability of infrastructure
 - c) Transparency of rules
 - d) Industry support

Thank You