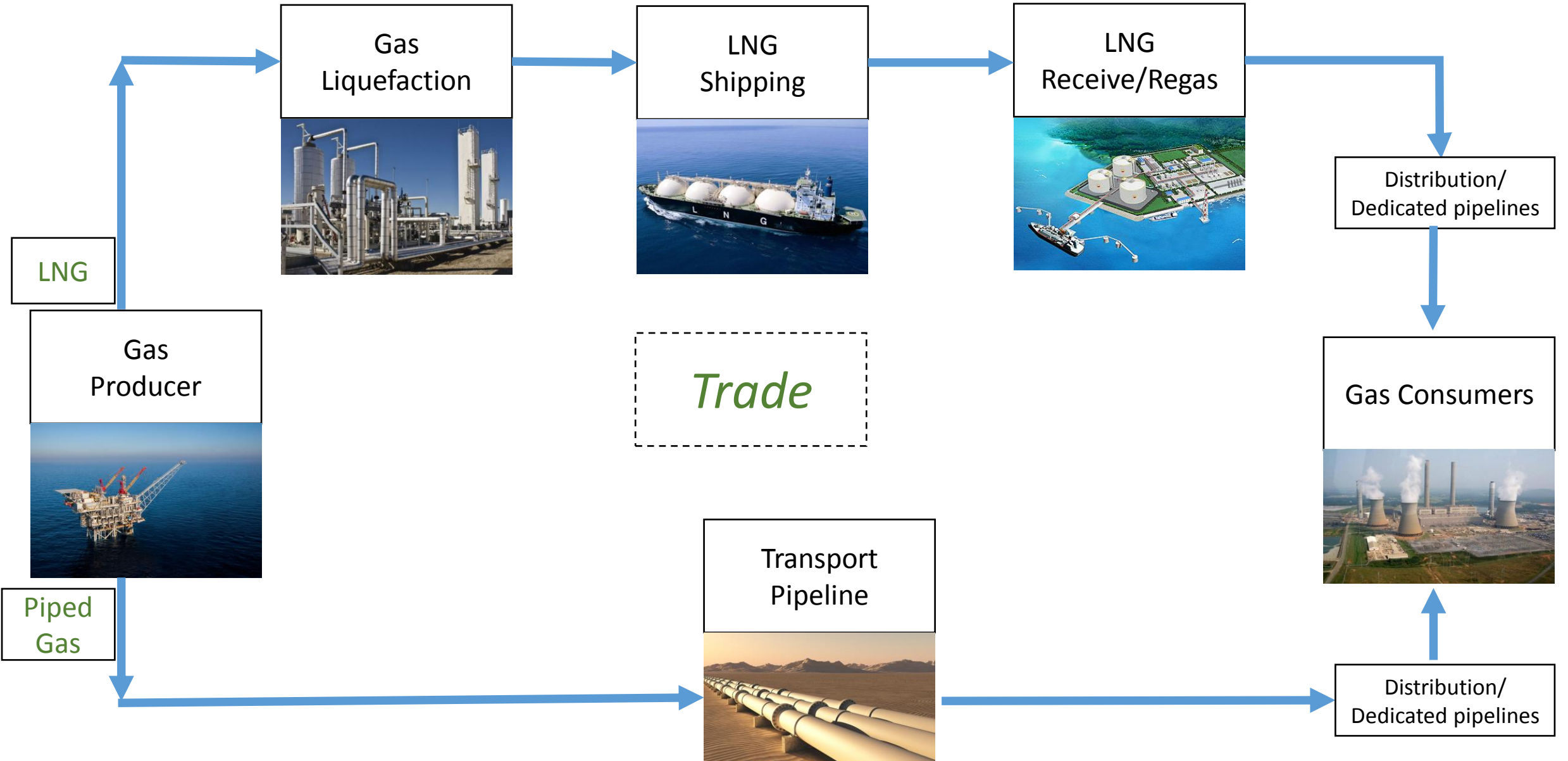


# Sustained Competitively-priced Natural gas from Producers to the Consumers

1<sup>st</sup> East Asia Energy Forum  
9 August 2017

# Natural Gas Value Chain



# Players and Their Priorities

- Producers (E & P):
  - Gas business - long term, capital intensive venture;
  - Need investment security; assured market - long term take or pay contracts
- Consumers:
  - Power, Industrial, Commercial and Transport
  - Gas is good, but should be secured, accessible and competitive
- Mid Stream Players
  - Traders, LNG Shipping, Pipeline Operators
  - Need continued gas stream from Producers to the Consumers
  - Return on Investment is important; Service and profit
    - Continued search for technology improvement; cost reduction
- Government
  - Energy Security
  - Echoes the concerns of consumers; Balance for energy mix, clean environment vs affordable price
  - Control, regulation and policies

# Initiatives

- Envisioned interconnection in ASEAN through the Trans ASEAN Gas Pipeline Network, well progressing; Open access
- Flexibilities in LNG destinations for contracted quantities are being pushed
- Initiatives to develop a hub for natural gas in the Asian region; End-view of competitively priced natural gas, through liberalized market ; Is the Asian Market ready?

# AS of May 2015

**- LNG LIQUEFACTION -**

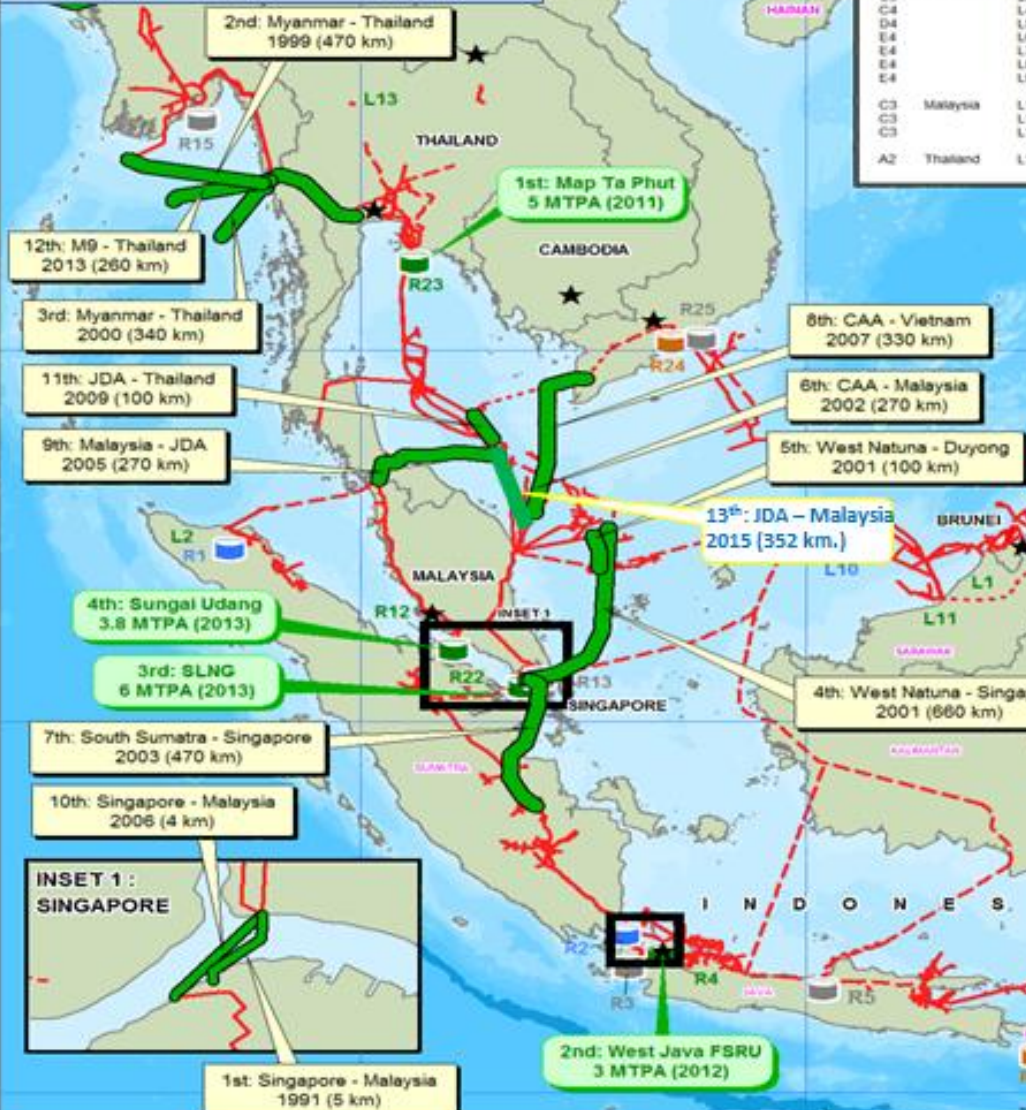
REF	COUNTRY	PLANT NAME
C3	Brunei	L1 - Lumit
A3	Indonesia	L2 - Arun
C3		L3 - Smonggari (Mini)
C4		L4 - Borisang
D4		L5 - Senggang
E4		L6 - Donggi Seoro
E4		L7 - Sataw (Mini)
E4		L8 - Tangguh
E4		L9 - Masela FLNG
C3	Malaysia	L10 - Koroit FLNG
C3		L11 - MLNG
C3		L12 - Rotan FLNG
A2	Thailand	L13 - Sukhothai (Mini)

**- LEGEND -**

- LNG Liquefaction (Operating)
- LNG Liquefaction (Engineering)
- LNG Liquefaction (Planned)
- LNG Liquefaction (Under construction)
- Gas pipeline (operating)
- Gas pipeline (under construction)
- Gas pipeline (planned)
- LNG Regasification (Operating)
- LNG Regasification (Engineering)
- LNG Regasification (Planned)
- LNG Regasification (Under construction)
- Trans ASEAN Gas Pipeline
- Capital City

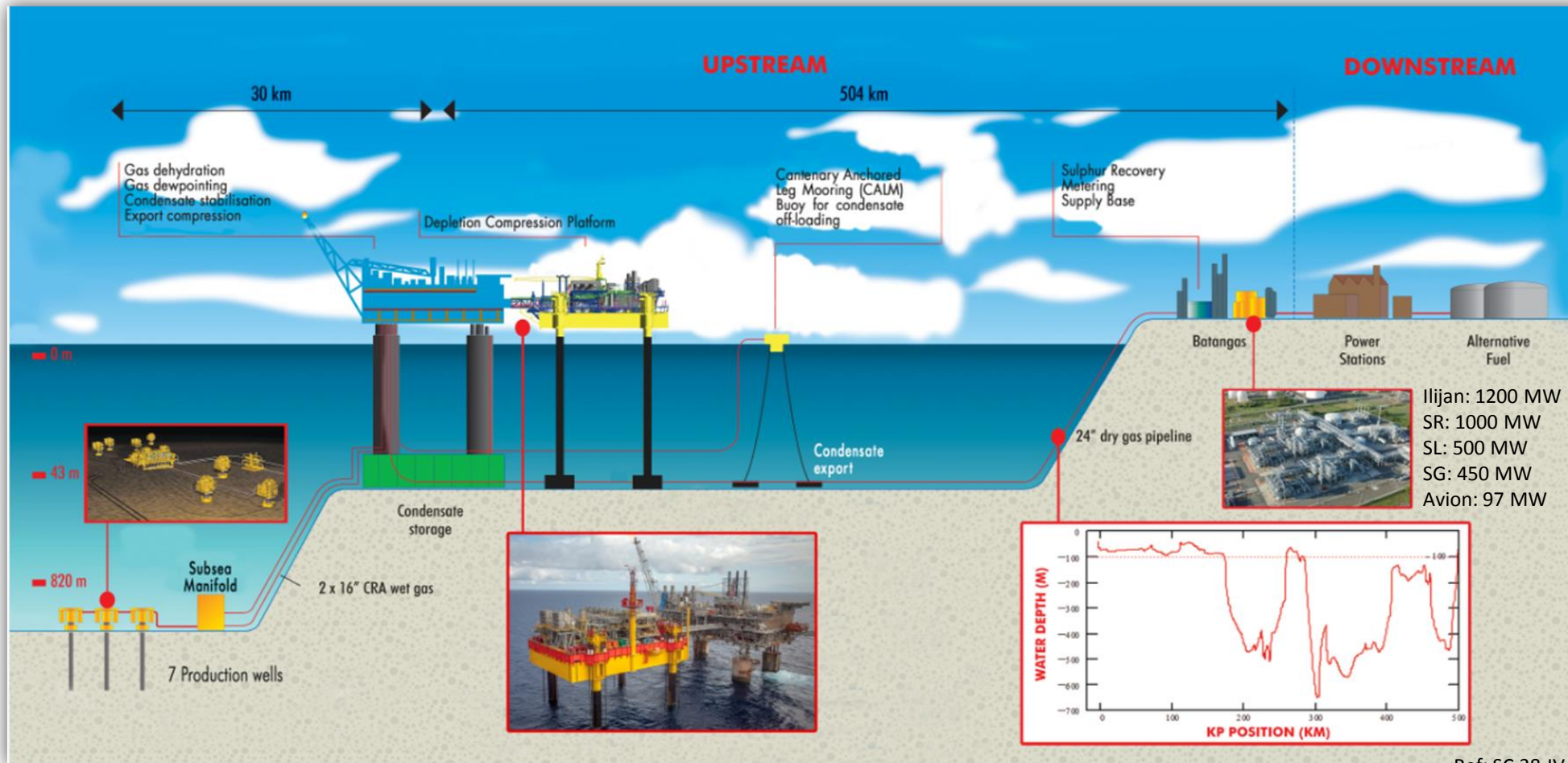
**- LNG REGASIFICATION -**

REF	COUNTRY	PLANT NAME
A3	Indonesia	R1 - Arun
B4		R2 - Lampung FSRU
B4		R3 - Banten FSRU
C4		R4 - West Java FSRU
C4		R5 - Central Java FSRU
D4		R6 - Pasanggaman
D4		R7 - Babakan (Mini)
D4		R8 - Tanjung Batu (Mini)
D4		R9 - Sembelih (Mini)
D3		R10 - Pomalaa (Mini)
D3		R11 - Halmahera (Mini)
B3	Malaysia	R12 - Sungai Udang
B3		R13 - Pengerang
D4		R14 - Lahad Datu
A2	Myanmar	R15 - Myanmar LNG
D2	Thailand	R16 - AGAP
D2		R17 - First Gen Corporation
D2		R18 - SHELL (Balangas)
D2		R19 - EVC Pagbilao
D3		R20 - Meraco PowerGen Corporation
D3		R21 - Petroleum Brunei
B3		R22 - SLNG
B2		R23 - Map Ta Phut
B2		R24 - Thu Vai
B2		R25 - Son My (Binh Thuan)



**Total TAGP bilateral connection increases from 3,279 to 3,631 km.**

- In the Philippines, the current gas industry remains anchored on Malampaya
- TAGP, at this time, not viable for Philippines
- LNG is still the next option, initially to fill the gap expected to be left by Malampaya in the midterm



# Way forward

- Push the development of necessary infrastructure, (LNG terminals, pipelines and distribution facilities) that will cater to multiple supply sources;
  - Strategize to address issues on financing, profitability and the concerns on the permitting process
- Promote governments' role in maintaining competitive market conditions in the national and in regional settings (Asian) for natural gas
- Look at the lessons in America and Europe for an Asian hub (gas trade); similarities and differences, its not a simple cut and paste;
  - New players and new agreements to grab opportunities departing from the traditional long term contracts indexed to oil; hoping that modified agreements lead to gas-gas market competition.
- In the regional setting, need to cooperate, initially through information exchange

# Cooperation

- Governments' role is important
  - in policies and regulations;
  - in organizing the exchange of information, (with dialogues and fora among players) resulting to:
    - List of doable action plans;
    - Mechanism for feedbacks and follow ups
- At the end of the Day – should be win-win for all Players, assuring both ends of the chain, Producers and Consumers, of sustained growth of the gas industry



Thank you