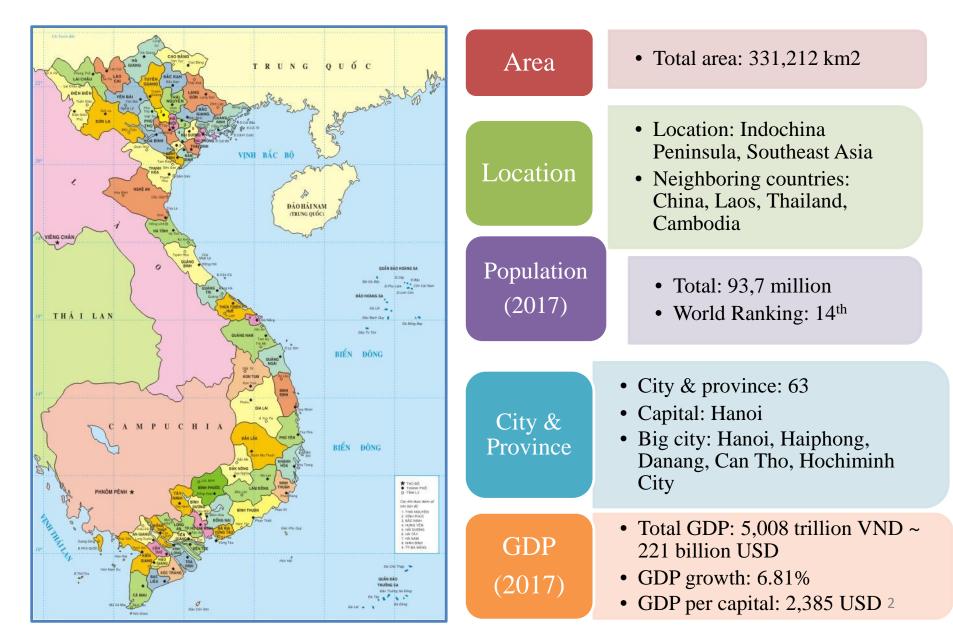


VIETNAM GAS INDUSTRY MASTER PLAN

Prepared by : Ngo Thuy Quynh - Vu Thi Hong Minh Department of Oil, Gas and Coal, Ministry of Industry and Trade, VIETNAM



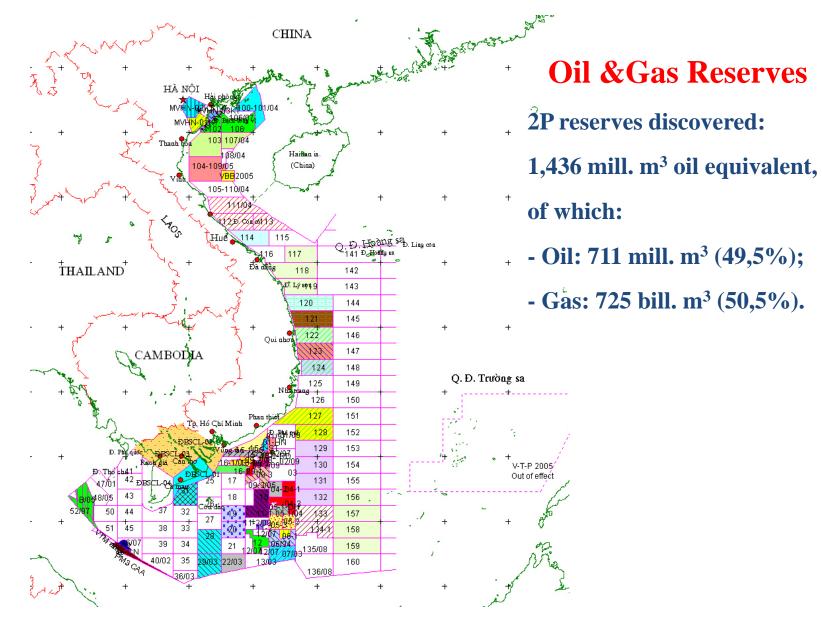
I. About Vietnam



CURRENTLY OIL & GAS INDUSTRY

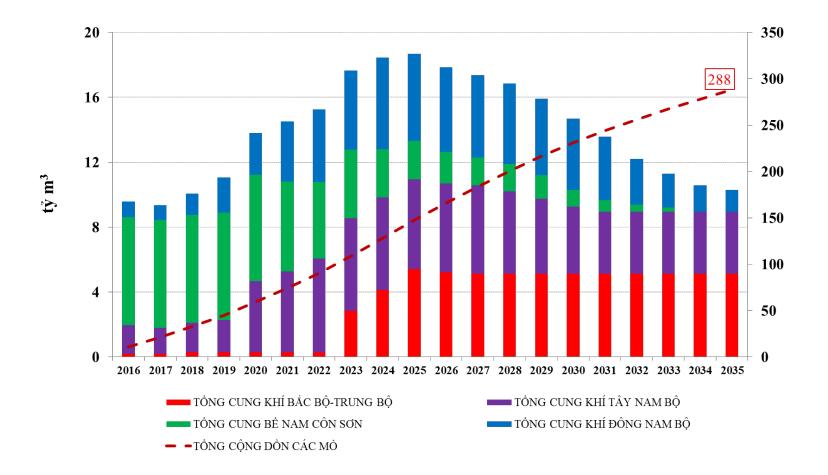
OIL&GAS FIELD DISTRIBUTION MAP







Natural Gas resource (2016 – 2030)



Oil and Gas Production

- 1. The crude oil production of Vietnam is about 15-17 millions tons per year, part of which is supplied for the first refinery and the remaining is exported.
- 2. The first refinery produces about 30% of demand petroleum product.
- 3. Vietnam has been importing remain 70% of petroleum products.
- 4. Vietnam starts using bio-fuel E5 from 2014.

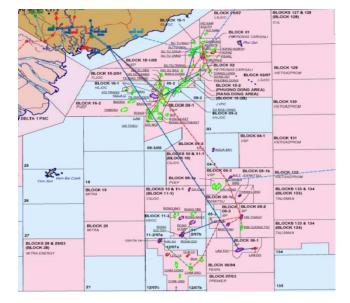






Oil & Gas Production

- Currently supply 9 10 bcm/year of gas through existing pipeline network.
- Consumers:
 Industrial
 Fertilizer 5%
 10%
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(under Government's Decree No. 98/2017/ND-CP dated August 18th, 2017 stipulating functions, power and organization structure of Ministry of Industry and Trade) Position and tasks

The Ministry of Industry and Trade is a governmental agency performing state management on industry and trade in following branches and domains: electricity, coal, oil and gas, new energy, renewable energy, chemicals, industrial explosives, mechanical engineering, metallurgy, mining and mineral processing industries, consumer-goods industry, food-industry and other processing industries, domestic goods circulation and market; import and export, cross-border trade, external market expansion, market surveillance, trade promotion, E-commerce, trade services, international economic-trade integration, competition management, imposing safeguard, anti-dumping, anti-subsidy and other measures to protect consumer-interest; state management on public services in the fields under scope of state management assigned to the Ministry.

MINISTRY OF INDUSTRY AND TRADE 'S ORGANIZATION



MINISTERIAL LEADER

MINISTERIAL UNITS	FOREIGN TRADE OFFICES	ADMINISTRATIVE UNITS	
Departments	Asia - Pacific Market Units	Institutes Educational Institutions Centers	
General Departments, Agencies	Europe Market Units		
	America Market Units		
	Africa, Western and South Asia Markets Units	Press	

MINISTRY OF INDUSTRY AND TRADE 'S ORGANIZATION



Minsterial Units Departments **Department of Planning Department of Finance and Enterprise Development Department of Science and Technology Department of Asia – Africa Market Department of Europe – America Market Department of Multilaterial Trade Policy Department of Domestic Market Department of Oil, Gas and Coal Department of Energy Efficiency and Stable Development Department of Organization and Personnel Department of Legal Ministry Inspectorate Ministry Office**

MINISTRY OF INDUSTRY AND TRADE 'S ORGANIZATION



Minsterial Units General Directorate and Agencies General Directorate of Market Surveillance Electricity Regulatory Authority Electricity and Renewable Energy Authority Industrial Promotion Agency Agency for Foreign Trade **Industry Agency** Vietnam Trade Promotion Agency **Industrial Safety Techniques and Environment Agency** Vietnam E-Commerce and Analog Economy Agency Vietnam Chemicals Agency **Competition and Consumer Protection Agency Commercial Defense Agency Provinces Industry and Trade Agency** The South Agency



VIETNAM GAS INDUSTRY MASTER PLAN





- Arcorrding to the Decision No.60/QD-TTg dated 16th January, 2016 about Vietnam gas industry development master plan, the development objectives of Vietnam gas industry as follows:
- Overall development of Vietnam gas value chain from upstream, midstream and downstream with projected indigenous gas volume in period of 2016 – 2035 as follows:
 - From 2016 2020: 10 11 bil. m³ per annual
 - From 2021 2025: 13 19 bil. m³ per annual
 - From 2026 2035: 17 21 bil. m³ per annual



Planned LNG volumes shall be imported and distributed in Vietnam market in 2021-2035:

- From 2021 2025: 1 4 bil. m³ per annual
- From 2016 2020: 6 10 bil. m³ per annual

Planned gas demand in Vietnam market in 2021-2035:

- From 2016 2020: 11 15 bil. m³ per annual
- From 2021 2025: 13 27 bil. m³ per annual
- From 2026 2035: 23 31 bil. m³ per annual



Northern Vietnam Region

No.	Project Name	COD
1	Ham Rong - Thai Binh phase 2	2018 -2020
2	Gas Distribution Network in Tien Hai (Thai Binh)	2018 -2020

Central Vietnam Region

No.	Project Name	COD
1	Ca Voi Xanh – Quang Nam pipeline system	2023 -2025
2	Bao Vang – Quang Tri pipeline system	2023-2025



Southeast Vietnam Region

No.	Project Name	COD
1	White Lion – NCS 2 pipeline system - phase 2	2019-2020
2	Gas Processing Plant 2	2019-2020
3	CRÐ – Lan Tây pipeline system	2018- 2019
4	ÐN/SV – NCS2 pipeline system	2019- 2021
5	Thi Vai LNG Terminal	2020-2021
6	Son My LNG Terminal	2023

Southwest Vietnam Region

No.	Project Name	COD
1	Block B pipeline system	2021-2022
2	Southwest LNG Terminal	2022-2025



LNG DEVELOPMENT PLAN





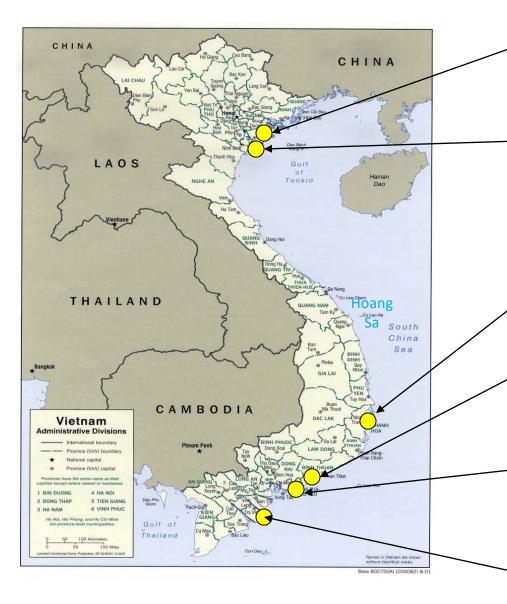
According to the Viet Nam Gas Industry Development Master Plan upto 2035, the import of LNG will be started by 2021 and import demand will be increased to around 5 million tons of LNG by 2025, 10 million tons by 2030, 15 million tons by 2035 (accounting for about 1.6% of total world LNG imports).

To achieve this target, Viet Nam will develop the LNG terminal systems and related facilities as follows:

- In the period of 2021-2025, it is planned to build 3-4 LNG terminals with a the estimated capacity of each depot around 1-3 million ton per year (and can be increased if needed), mainly located in the Southern Viet Nam (such as Thi Vai LNG Projects, Son My LNG Project, Tien Giang LNG Projects, South West LNG Projects).

- In the period of 2026-2035, it is planned to build about 5-6 LNG terminals with the estimated capacity of each terminal around 3 million tons/year.

LNG IMPORT PROJECTS





FSRU LNG Terminal

- Capacity: 0.2-0.5 MMTA
- Schedule: 2026 2030

Cat Hai – Hai Phong LNG Terminal

- Capacity: 1-3 MMTA
- Schedule: 2030 2035

Son My – Binh Thuan LNG Terminal

- Capacity: 6 MMTA
- Schedule: 2022-2025
- My Giang Khanh Hoa LNGTerminal - Capacity: 3 MMTA
- Schedule: 2030 2035
- South East LNG Terminal - Capacity: 4-6 MMTA - Schedule: 2022 - 2025
- Thi Vai Vung Tau LNG Terminal
- Capacity: 1-3 MMTA
- Schedule: 2020 2022

South West LNG Terminal

- Capacity: 1 MMTA
- Schedule: 2021 2030



To implement the master plan, Viet Nam will establish and issue the legal framework for the development of the LNG sector in Viet Nam.

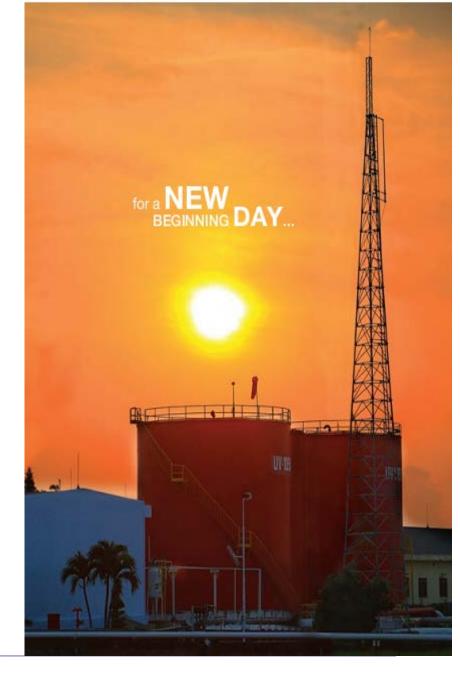
In the short term, to study and propose mechanisms and policies for importing and distributing LNG (such as LNG price control mechanisms for power plants, technical standards for LNG depot, terminal, pipeline,...).

At the same time, to promote investment in LNG storage, terminal projects; to prioritize the timing, schedule of the storage project to call for investment.



- 1) LNG Import and Terminal Regulatory Development and Market Frameworks
- 2) LNG terminal and pipeline project Development
- 3) LNG technology and value chain
- 4) LNG Project Financing and Contracting
- 5) Gas markets (pricing, pooling price, price mechanism).

THANK YOU!



2018年7月25日プレゼンの様子@JCCP







