



BỘ CÔNG THƯƠNG VIỆT NAM

MINISTRY OF INDUSTRY AND TRADE OF THE SOCIALIST REPUBLIC OF VIETNAM

Current status and orientations for development of oil and gas market in Viet Nam

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OUTLINE

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2. Development orientation for oil and gas market in Viet Nam

Current status of Viet Nam's oil and gas industry



Oil & gas reserves in Viet Nam

- Song Hong Basin	- Cuu Long Basin
- Hoang Sa Basin	- Nam Con Son Basin
- Phu Khanh Basin	- Malay Tho Chu Basin
- Truong Sa Basin	

- Oil & gas potential: 4.5-7.1 billion TOE;
- 25% crude oil, 75% natural gas
- 50% of the reserves located in offshore deep water

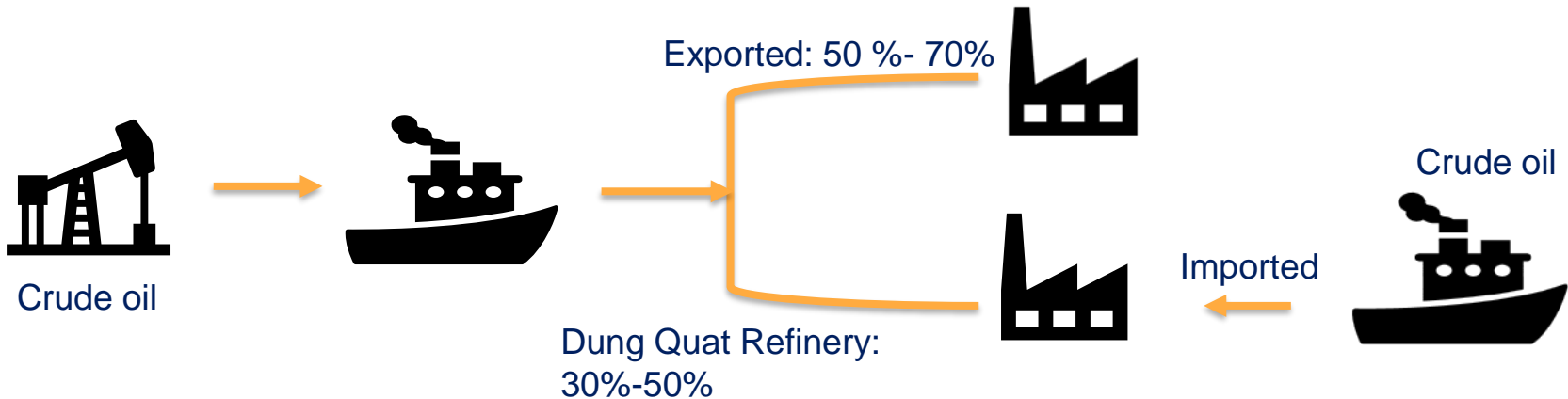
Current status of Viet Nam's oil and gas industry



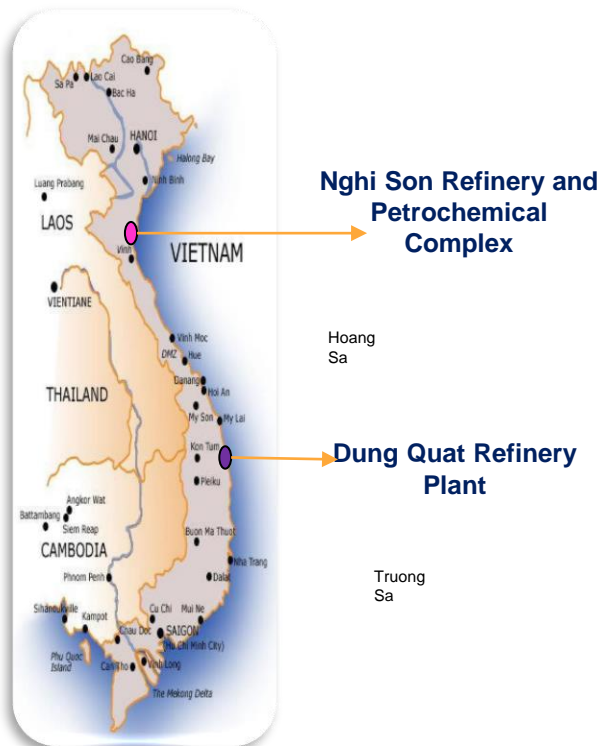
Crude oil market:

- Domestic extraction output: approx. 9-10 million ton/year
- 30-50% of the output supplied to Dung Quat Refinery Plant
- 50-70% of the output exported

Year	2018	2019	2020	2021
Extraction output	12	11.04	9.65	9.10
Import	11.43	15.34	13.75	9.90
Export	6.20	3.98	4.66	3.10
Domestic consumption	12.51	14.09	13.88	15.79



Current status of Viet Nam's oil and gas industry



Oil & gas processing

- **Dung Quat Refinery Plant**

Capacity: 6.5 million ton/year

Commissioned: 2010

- **Nghi Son Refinery and Petrochemical Complex**

Capacity: 10 million ton/year of crude oils imported from Kuwait

Commissioned : 2018

Year	2018	2019	2020	2021
Petroleum production	10.103	10.523	11.824	11.802
Petroleum imported	11.433	15.344	8.268	9.90
Petroleum exported	3.116	3.939	2.272	2.50

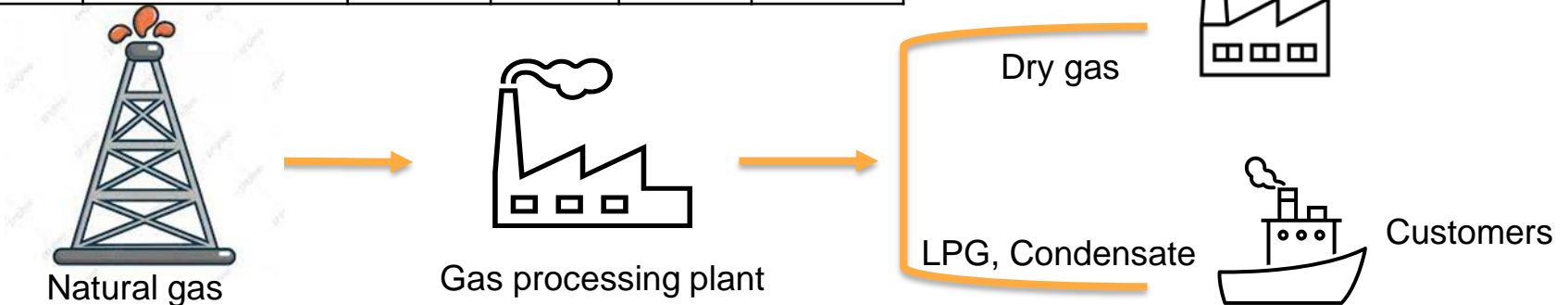
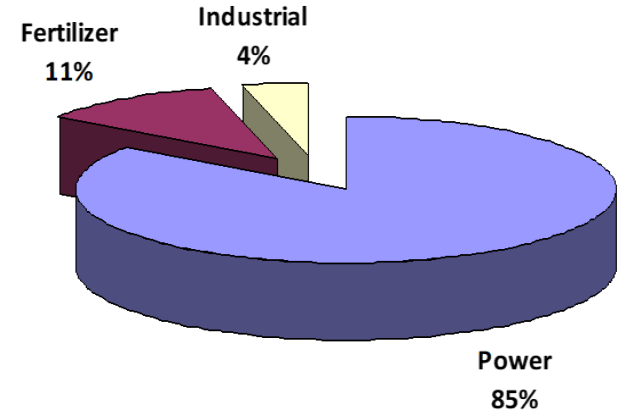
The petroleum trading is currently governed by regulations in Decree 83/2017/ND-CP and Decree 95/2021/ND-CP

Current status of Viet Nam's oil and gas industry



Gas market

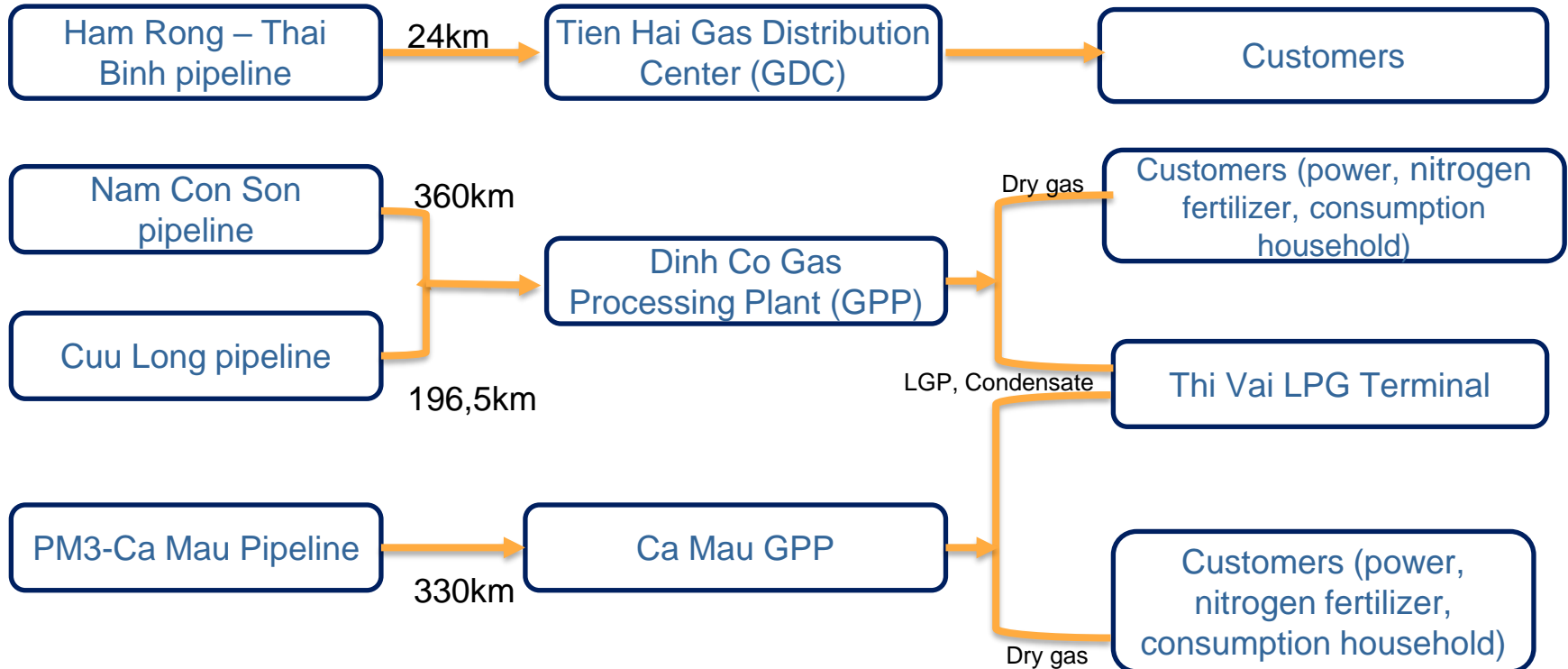
No.	Item	2018	2019	2020	2021
1	Natural gas (billion m³)				
	Extraction	10,01	10,2	9,16	7,46
	Consumption	10,01	10,2	9,16	7,46
2	LPG (million ton)				
	Import	1,44	1,81	1,81	1,35
	Consumption	2,39	2,76	2,76	2,3



Current status of Viet Nam's oil and gas industry



- Natural gas conveyance pipelines**



Current status of Viet Nam's oil and gas industry



Natural gas processing

- **Tien Hai Gas Distribution Center (Tien Hai GDC)**
Capacity: 0.5 billion m³/year
Employer: PVGas
Commissioned: 2015
- **Dinh Co Gas Processing Plant (Dinh Co GPP)**
Capacity : 5.7 - 6.1 million m³/day
Employer : PVGas
Commissioned : 1998
- **Ca Mau Gas Processing Plant (Ca Mau GPP)**
Capacity : 6.2 million m³/day
Employer : PVGas
Commissioned : 2018

Development orientations for oil and gas market in Viet Nam



Natural gas supply and demand balance (thousand m3)

Item (BAU scenario)	2020	2025	2030	2035	2040	2045	2050
Power generation demand	7,028	13,178	24,534	33,382	27,934	20,487	10,080
- Domestic gas	7,028	10,182	10,859	7,700	7,743	7,747	7,700
- Imported LNG		2,996	13,675	25,682	20,191	12,740	2,380
Final Energy Demand	865	2,130	3,982	6,085	8,893	12,289	16,657
Industry – Construction	841	1,961	3,626	5,500	8,025	11,066	14,954
Transport	24	169	355	584	869	1,222	1,703
Non-energy demand	797	1,133	2,356	2,756	3,265	3,916	4,747
Nitrogen fertilizer production	797	1,133	1,446	1,846	2,355	3,006	3,837
Petrochemicals production			910	910	910	910	910
Reforming for H2 production							
Total domestic gas demand	8,690	16,145	29,395	40,389	37,796	33,793	27,805
Extraction	9,740	9,600	19,369	16,536	15,994	16,138	15,875
Import							
Total primary energy supply	8,690	16,145	29,395	40,389	37,796	33,793	27,805

Development orientations for oil and gas market in Viet Nam



Supply and demand balance of crude oils and petroleum (thousand ton)

Item (BAU scenario)	2020	2025	2030	2035	2040	2045	2050
<i>Power generation demand</i>	185	93					
<i>Final energy demand</i>	17,173	22,330	23,843	23,698	22,202	19,758	11,390
Agroforestry and Fishery	1,718	2,714	3,028	3,307	3,555	3,787	3,968
Commerce – Service	317	581	763	992	1,270	1,627	2,068
Industry - Construction	1,467	2,126	2,569	2,837	3,037	3,131	2,951
Residential consumption	1,718	1,589	1,477	1,263	962	594	73
Transport	11,954	15,320	16,006	15,300	13,378	10,619	2,330
Non-energy demand	1,236	1,433	1,661	1,926	2,233	2,465	2,722
Petrochemical products	1,236	1,433	1,661	1,926	2,233	2,465	2,722
Other productions							
Total domestic petroleum demand	18,594	23,856	25,505	25,624	24,434	22,223	14,112
Domestic production (to meet at least 70% of the demand)	13,528	16,699	17,853	17,937	17,937	17,937	17,937
Net import of oil products	8,397	7,157	7,651	7,687	6,498	4,286	3,824
Crude oil demand	16,500	16,500	29,600	29,600	29,600	29,600	29,600
Domestic extraction	9,650	8,070	12,218	8,971	5,733	4,717	4,273
Crude oil import		10,000	22,000	22,000	23,867	24,883	25,327
Crude oil export	4,590	1,570	4,618	1,371			
* Crude oil extraction abroad	1,820	1,720	1,368	803	326	135	

Orietation Development of Vietnam Oil and Gas Market



Planed LNG Projects

No	Projects	Capacity	Operate expectation
1	Thi Vai Lng Terminal	01 mil ton/year	2022
2	Hai Linh LNG Terminal	01 mil ton/year	2022
3	Son My LNG Terminal	3,6 mil ton/year	2025-2026
4	ITECO LNG Terminal	80.000 m3/năm	2023-2025
5	Ca Na LNG Terminal	(Power plant) 1.500 MW	2025-2026
6	Long Son LNG Terminal	(Power plant) 1.500 MW	2025-2026
7	Bac Lieu LNG Terminal	(Power plant) 3.200 MW	2024-2027



Orietation Development of Vietnam Oil and Gas Market

The LNG projects in Draft Energy Master Plan

No	Projects	Capacity (mil ton/year)	Location
<i>The period 2021-2025</i>			
1	Thi Vai LNG Terminal Expansion	2-3	Ba Ria- Vung Tau
<i>The period 2026-2030</i>			
1	South East LNG Terminal	1-3	Ba Ria- Vung Tau, Long An
2	South West LNG Terminal	1-3	Ca Mau, Kiên Giang
<i>The period 2031-2050</i>			
1	South Central LNG Terminal	1-4	Thanh Hoa, Ha Tinh
2	North Central LNG Terminal	6-10	Khanh Hoa, Phu Yên, Ninh Thuan



Viet Nam's oil and gas market development objectives

➤ **Overall objectives:**

- To ensure the national energy security; secure the adequate, reliable and high-quality supply of energy at affordable price for rapid and sustainable socioeconomic development; ensure the national defense and security; improve the public living quality and contribute to protecting the ecological environment.
- To form and develop a State-regulated healthy competitive gas market in a phased manner to ensure the national energy security, help to meet requirements for socioeconomic growth and implement targets and policies of the Party and the State, and enhance global integration.



Viet Nam's oil and gas market development objectives

➤ **Specific objectives:**

In regard to crude oil and petroleum

- To invest in oil refinery and petrochemical sector towards deep processing, improving the quality of petrol products, initiatives meeting the domestic demand as much as possible and exporting.
- Oil refinery facilities to meet at least 70% of the domestic demand; ensure the strategic petrol reserve of at least 90 days of net import and the national energy security.

Development orientations for **oil and gas market** in Viet Nam



Viet Nam's oil and gas market development objectives

➤ **Specific objectives :**

In regard to crude oil and petroleum

- To continue to maintain petroleum business activities under the market mechanism under the state management to meet 03 objectives: (1) Meet consumer demand and develop the country's economy; stabilize the petroleum market in all situations; (2) The selling price of petroleum shall be operated according to the market mechanism under the management of the State; (3) Harmonize the three state benefits of revenue stabilization - Consumers are purchased at reasonable prices - Business enterprises able to have financial accumulation for development investment;
- To encourage all economic sectors to invest and participate in the market from upstream to downstream in accordance with the plan to create an environment of equal competition among enterprises, constantly improving quality, services and trade civilization.

Development orientations for **oil and gas market** in Viet Nam



Viet Nam's oil and gas market development objectives

➤ **Specific objectives:**

In regard to the gas market

- Ensuring national energy security; providing enough gas to match the needs of socio-economic development.
- Step by step developing a legal framework to create a basis for implementing a competitive business model for trading in CNG, LPG and LNG gas: building a roadmap, operating a competitive market for downstream gas distribution with the introduction of regulations on the rights to rent and use third-party infrastructure; continue to implement the government's commitments and signed trade commitments for gas collection and distribution systems to be developed on the basis of domestic gas extraction projects.

Development orientations for **oil and gas market** in Viet Nam



Roadmap for gas market development in Viet Nam

Period until end of 2025

- Maintaining the current gas market model for the competition in natural gas extraction and import (by pipeline) with an upstream purchasing point for each gas extraction and distribution system (except for cases approved by the Prime Minister for other mechanisms in gas purchase contracts); competition for import and distribution business in the domestic market (without pipelines) for LPG, CNG;
- Allowing contractors and investors of new gas extraction projects (Ca Voi Xanh, Lot B....) to choose to negotiate the direct retail sale of gas to household consumers or wholesale to PVN/PVGas;



Roadmap for gas market development in Viet Nam

Period until end of 2025

- Implementing the operation of new business models for imported LNG projects (units involved in importing LNG selling gas directly to customers);
- Developing and completing legal corridors to create the basis for the implementation of the rights to hire and use third-party infrastructure including regulations and standards regarding technical, commercial and financial issues which need to be completed before applying;

Development orientations for **oil and gas market** in Viet Nam



Roadmap for gas market development in Viet Nam

Period until end of 2025

- Developing and promulgating a system of standards, technical and safety regulations for construction and operation of LNG import terminals, LNG transport equipment, ensuring quality, safety of design, construction and operation of LNG gas works;
- The gas market in the period of 2022 to 2025 should be built and developed on the principle of promoting the leading role of specialized state-owned enterprises to ensure national energy security; take advantage of the available experience and infrastructure and optimize investment, especially in the early stages of importing LNG; encourage domestic and foreign enterprises to invest in LNG import infrastructure to increase investment resources and diversify gas supplies for the national economy.

Development orientations for **oil and gas market** in Viet Nam



Roadmap for gas market development in Viet Nam

Period from 2026 until end of 2030

- Step by step building a competitive market model of downstream pipeline gas distribution with the introduction of regulations on the rights to rent and use third-party infrastructure. State agencies shall consider and direct the construction and application of charges for the use of shared infrastructure and supervise the import and distribution of gas for electricity;
- Continue to implement the government's commitments and signed trade commitments, gas collection and distribution systems to be developed on the basis of domestic gas extraction projects;
- Continue to promote the core role of specialized state-owned enterprises: at the same time, increase the attraction of foreign enterprises and private enterprises to invest and do business in the gas field.



Roadmap for gas market development in Viet Nam

Period from 2031 until end of 2045

- Continue to maintain the implementation of commitments at the government level and signed and valid trade commitments regarding gas extraction projects from domestic and foreign investors (if any):
- Fully operate the competitive market in importing and downstream pipeline gas distribution and the right to lease and use third-party infrastructure; synchronous operation of Viet Nam gas market with Viet Nam electricity market;
- Build additional legal corridors to complete and well operate the competitive gas market.

Development orientation for **oil and gas market** in Viet Nam



Solutions for oil and gas market development in Viet Nam

- To add regulations for gas market to the Law on Oil and Gas and complete the system of legal documents of the gas industry to support investment preparation, investment in the construction of imported warehouse projects, LNG distribution projects in the market and the implementation of the gas market roadmap.
- To supplement the task of directing the gas market to the State Steering Committee of key oil and gas projects, in which the Ministry of Industry and Trade acts as the Standing Agency of the Steering Committee, in order to implement the roadmap of Viet Nam's gas market.
- To promote investment in mining investment projects, oil and gas infrastructure, oil and gas imports, electrification and LNG regasification to meet domestic demand.



Implementation of oil and gas market development in Viet Nam

Ministry of Industry and Trade

- To manage and direct the construction and development of competitive energy markets until 2030, with a vision to 2045.
- To play the leading role and cooperate with relevant ministries and sectors in formulating, amending, supplementing, submitting to competent authorities for promulgation, or promulgation according to their competence the policy mechanisms serving the development of the energy market by stages.
- To review and complete the conditions on infrastructure, restructuring the energy sector, implementing necessary solutions to build and develop the energy market according to the roadmap approved by the Prime Minister.
- To play the leading role and cooperate with relevant ministries and sectors in formulate and submit to the Government for promulgation of energy price policies according to the market mechanism, ensuring harmonization of interests between the State, enterprises and consumers.

Development orientations for **oil and gas market** in Viet Nam



Implementation of oil and gas market development in Viet Nam

Ministry of Finance

- To play the leading role and cooperate with the Ministry of Industry and Trade and related ministries and sectors in reviewing legal documents on tax and fee policies in accordance with the formation and development of the energy market.
- To play the leading role and cooperate with the Ministry of Industry and Trade in researching and reporting to the Prime Minister on financial mechanisms and policies for the development of competitive energy markets.

Ministry of Planning and Investment

- To develop policy mechanisms that allow economic groups and state-owned corporations to negotiate and sign long-term contracts to import energy sources at market prices and in accordance with international practices.



Implementation of oil and gas market development in Viet Nam

Ministry of Transport

- Update, adjust and supplement the planning of seaports, creek streams and inland transport systems in accordance with regulations to meet the needs of transport, ensuring the principle of optimal use of ground and surface water funds to ensure the sustainable development of the oil and gas industry and maritime industry in the overall marine economic strategy of Viet Nam.
- Detailed planning agreement for specialized terminals importing LNG, which is proposed to be added to the Development Plan of Viet Nam's seaports system.

Development orientations for **oil and gas market** in Viet Nam



Implementation of oil and gas market development in Viet Nam

People's Committee of provinces and municipal cities

- To coordinate with state management agencies and enterprises in supplementing and finalizing socio-economic development plans of provinces, cities and economic zones and industrial parks, completing land and sea use plannings (if any) taking into account the construction of projects for oil and gas industry.
- Priority is given to allocating land and water resources to build oil and gas industry works.
- Are responsible for the compensation and resettlement of land clearance for oil and gas industry works as prescribed.



Implementation of oil and gas market development in Viet Nam

Enterprises

- Be proactive in implementing the oil and gas business model, especially the investment in infrastructure construction, gas import for electricity production and other consumer households.
- Enterprises are responsible for implementing the investment and construction of oil and gas projects according to plannings and investment policies approved by competent authorities.
- Enterprises assigned by the State to implement LNG import projects are responsible for organizing the construction of infrastructures for LNG imports; management of LNG operations and imports as prescribed.



THANK YOU VERY MUCH