



MINISTRY OF INDUSTRY AND TRADE

Update on Oil and Gas Security in Vietnam

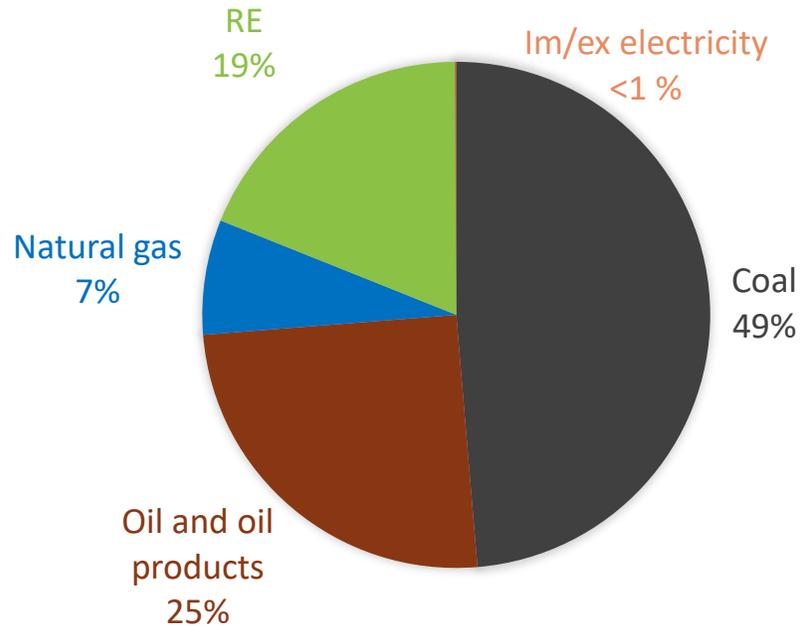
Oil, Gas and Coal Department
Ministry of Industry and Trade of Vietnam

The 7th APEC Oil and Gas Security Network Forum
20th March 2024, Osaka, Japan

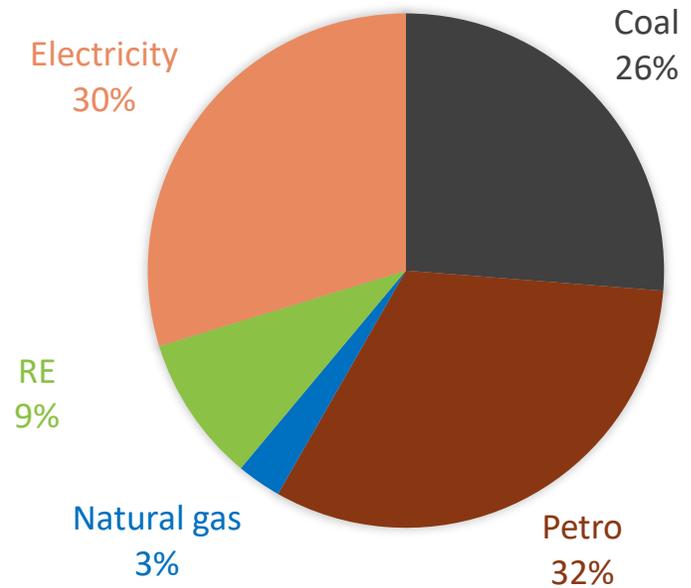


Oil and gas in energy mix in Vietnam

In primary energy mix

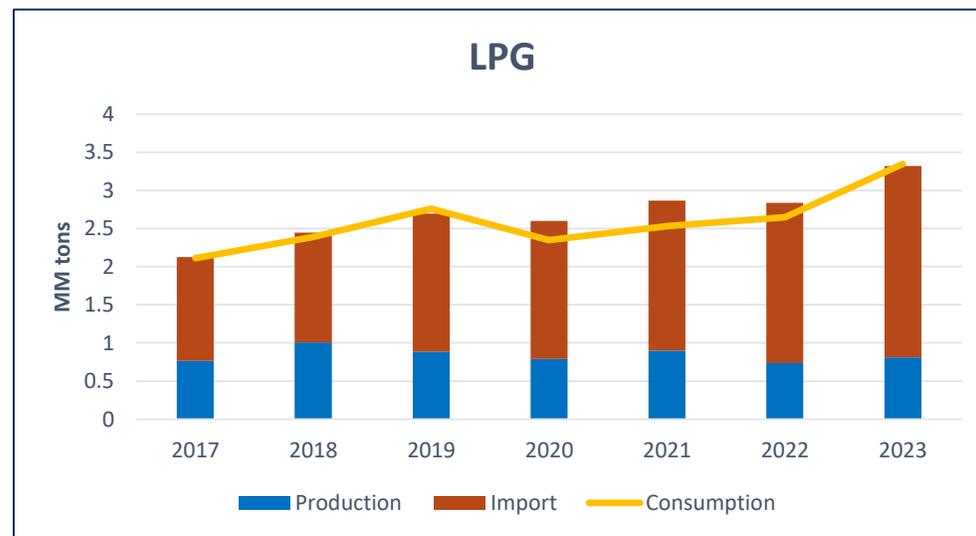
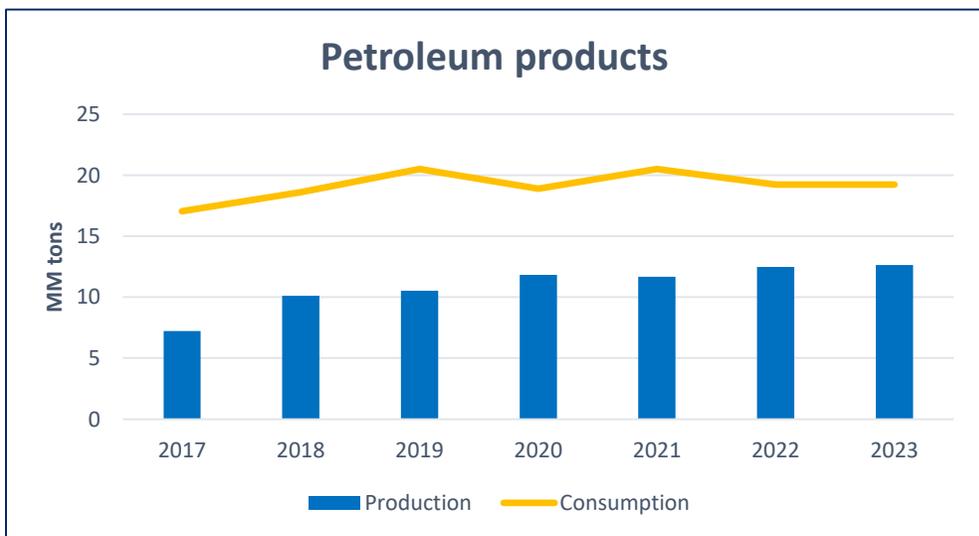
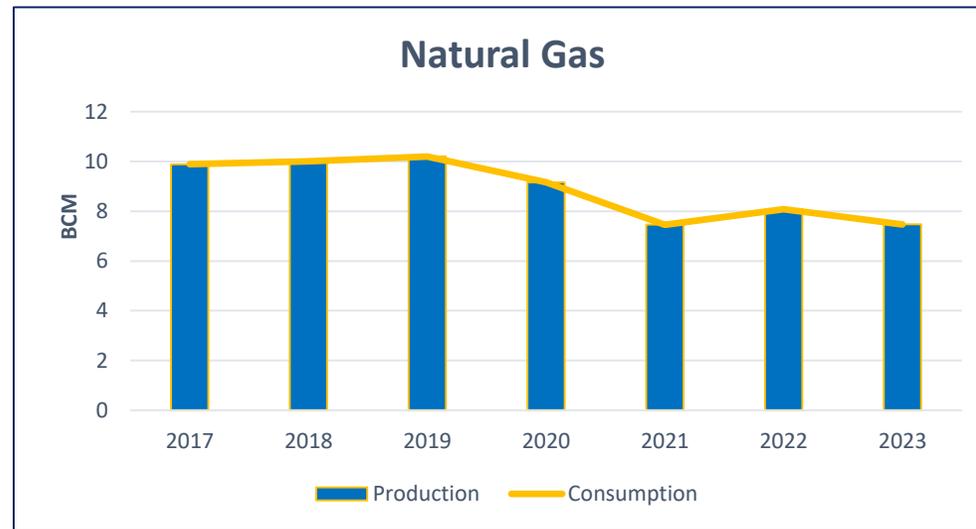
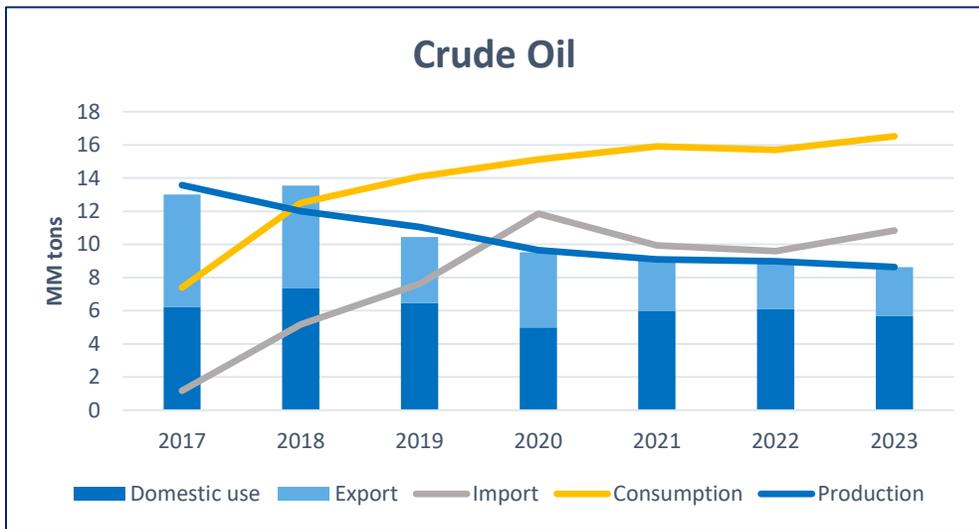


In final energy mix





Oil, gas and petroleum product supply



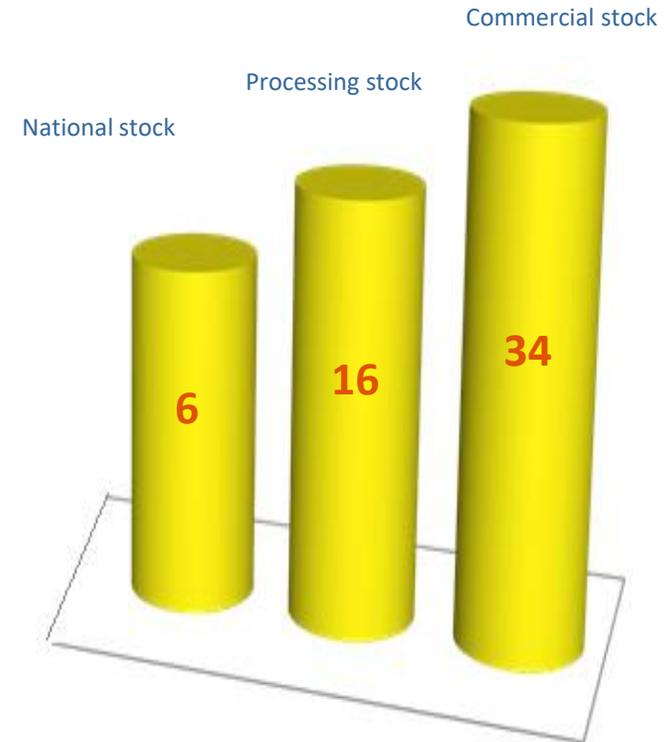
Note: 2023 estimated



Oil stockpiling current status

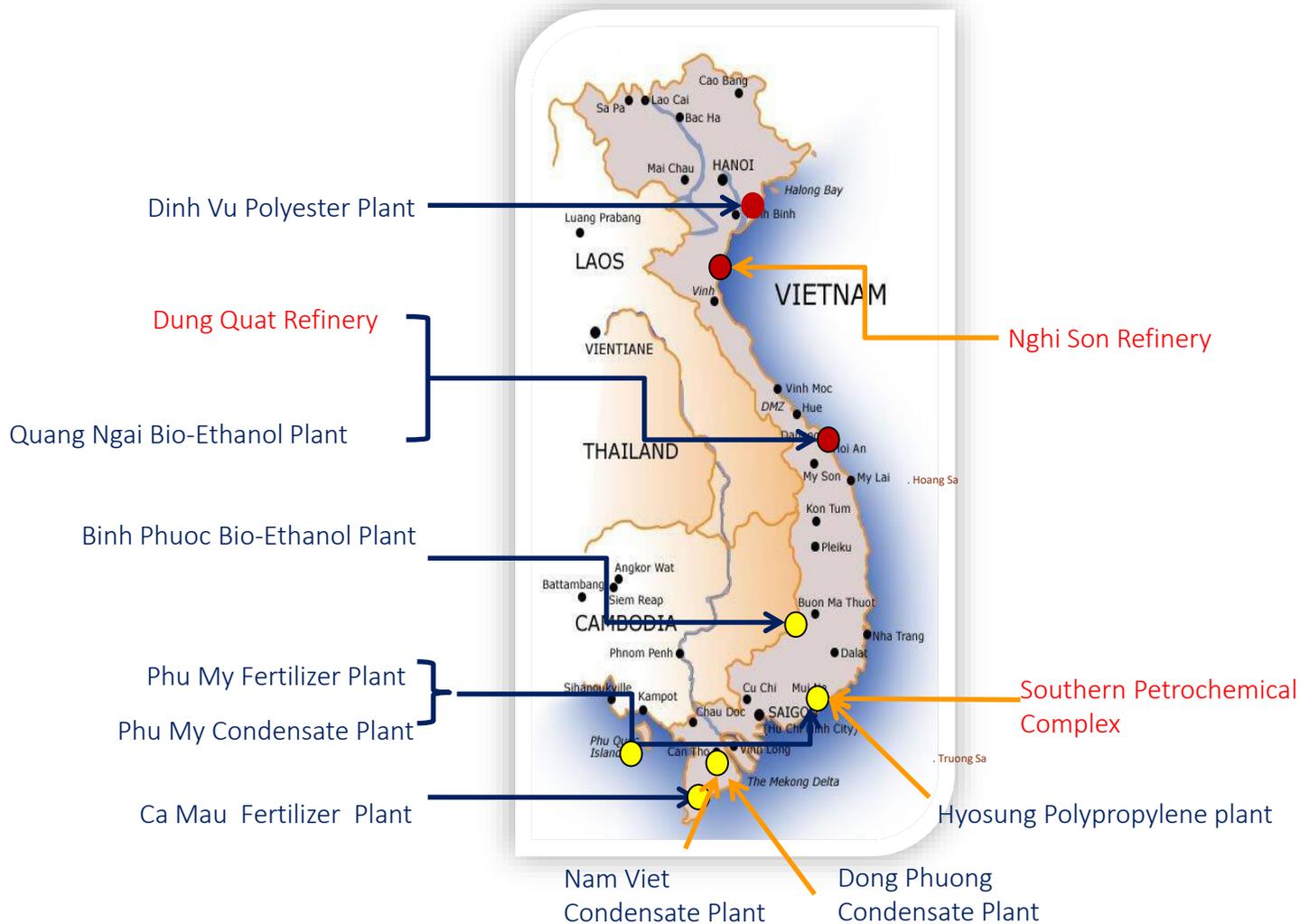
The total capacity of the stockpiling system of crude oil and petroleum products in Vietnam is about 56 days of net imports, in which:

- Commercial stockpiling: 34 days of net imports (Stick to the goal)
- Producers' stockpiling: 16 days of net imports (at Dung Quat and Nghi Son Refinery)
- National stockpiling: 6 days of net imports (only petroleum products)





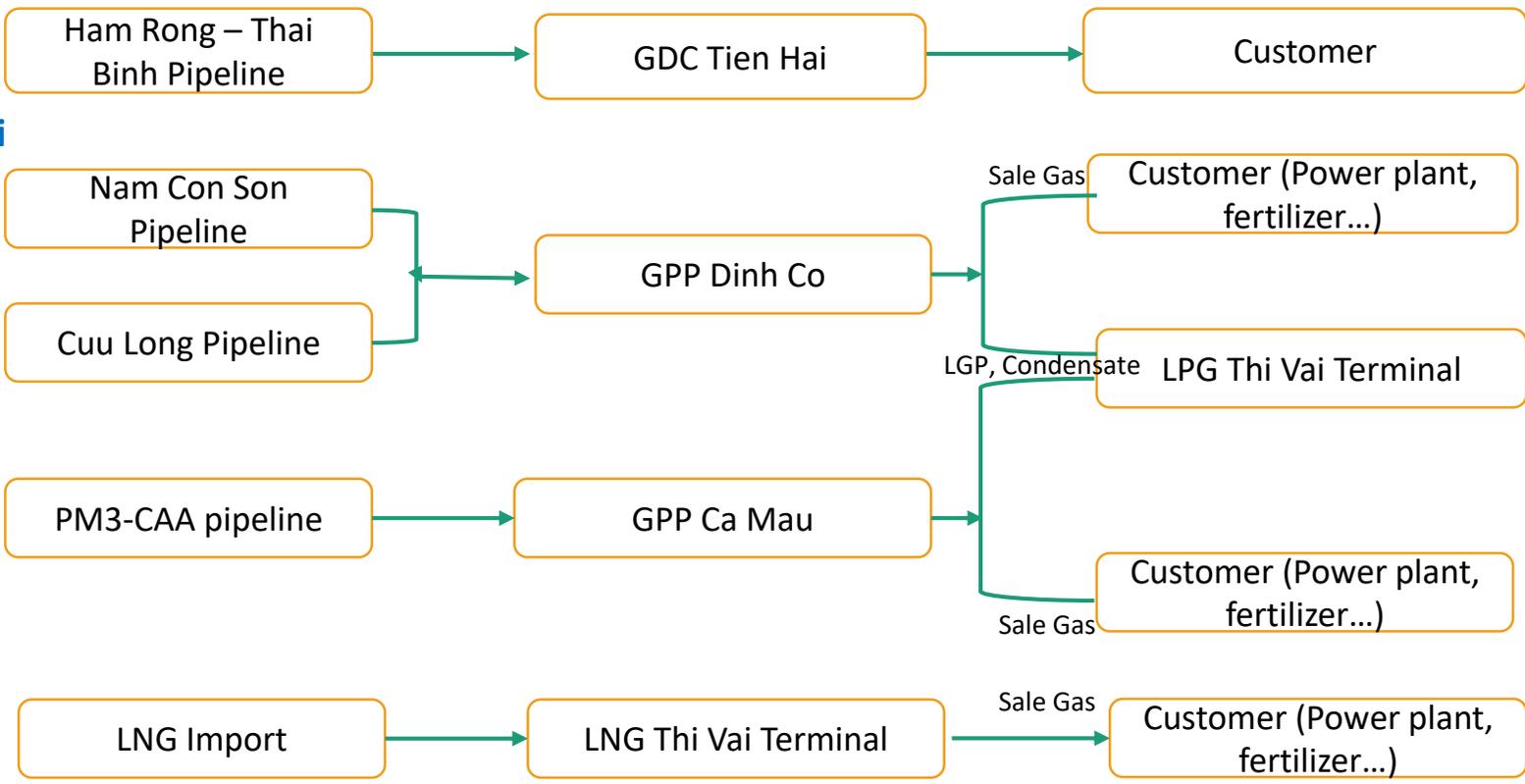
Capacity of refineries and petroleum plants



- Capacity of Dung Quat and Nghi Son refineries: 16.5 MM tons.
- Southern Petrochemical complex operated partially from 2022 and will reach full capacity of 2.7 MM tons in 2024.
- 2028: Dung Quat Refinery upgrading and expansion project completed will increase the capacity to 7.6 MM tons.



Accessibility of gas and LNG infrastructure





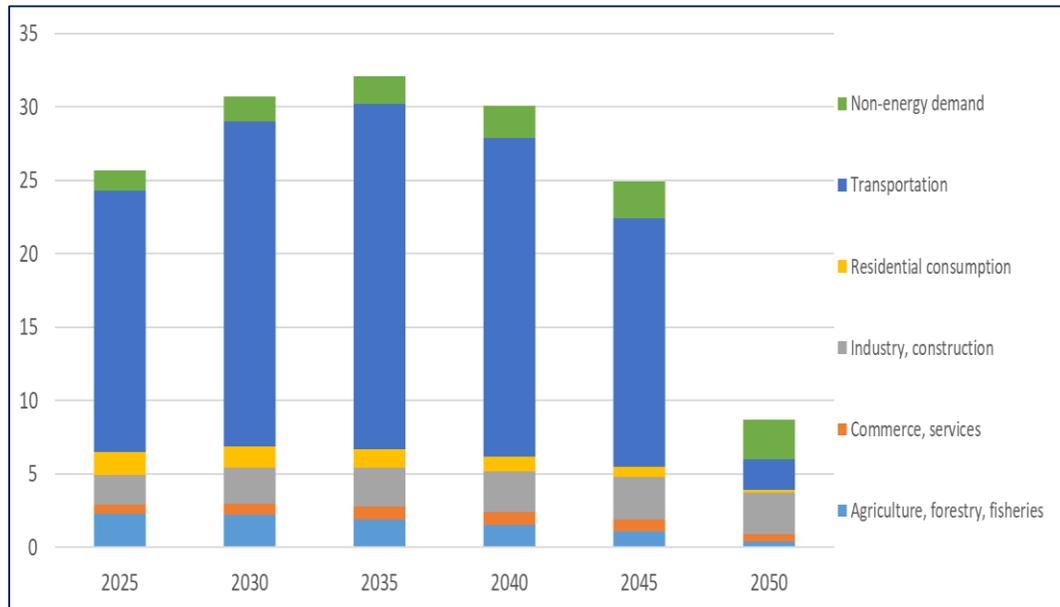
Acceptability of oil, gas and petroleum products

- Price of crude oil and petroleum products (Gasoline, FO, DO, KO, LPG) is global market oriented.
- Gas is not in list of goods whose price is regulated by the government, but gas plays an important role in energy mix and is used for many activities:
 - + The wellhead price is based on the agreement between the field owners/investors and PVN, approved by Government.
 - + The gas price for consumers is based on linking to market price.
- Consumers can directly negotiate and sign gas sale and purchase contracts with producers/sellers.

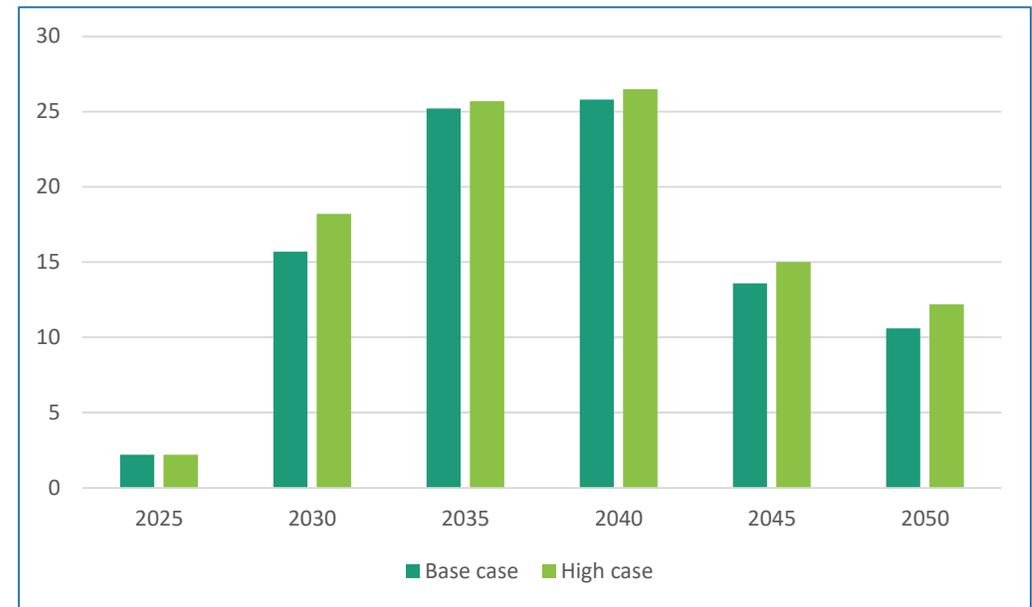


Petroleum product and LNG demand outlook

Petroleum products (MM tons)



LNG import (BCM)

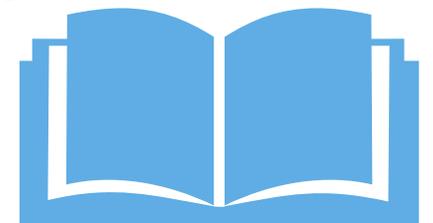


Transportation remains the major consumer for petroleum products, but its demand will gradually be replaced by biofuels, electricity and low-emission fuels to reduce GHG emissions.



Policy and regulation framework (1)

- Resolution 55-NQ/TW of the Politburo on orientation of Vietnam's National Energy Development Strategy through 2030, with a vision toward 2045
- National Energy Master Plan for period of 2021-2030, a vision to 2050
- National Energy Development Strategy of Vietnam to 2030, a vision to 2045
- Scheme on developing a competitive energy market to 2030, a vision to 2045
- Oil and Gas Industry Development Strategy toward 2025, orient to 2035
- Master plan on development of Vietnam's gas industry up to 2025, orientation to 2035
- National Master plan on infrastructure for petroleum and gas stockpiling and supply to 2030 and the orientation towards 2050
- Vietnam's Hydrogen energy development strategy through 2030, with a vision to 2050
- National Power Development Plan 8 (PDP8)
- Petroleum Law and relevant regulations





Policy and regulation framework (2)

Goals for the National Energy Development Strategy to 2030 with a vision to 2045:

- To maintain the national energy security as the firm foundation for socioeconomic development while rapidly and sustainably developing the energy sector;
- Based on the socialist-oriented market mechanism, to quickly develop a competitive and transparent energy market, diversify forms of ownership (especially the private sectors) and business models, and eliminate monopolies or unfair competition;
- To develop and diversify energy forms;
- To accelerate digital transformation and R&D in order to become more technology self-sufficient; and
- To emphasize energy efficiency and environmental protection.

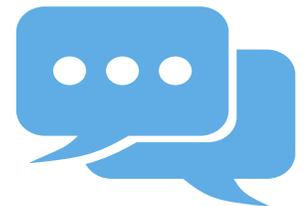




Policy and regulation framework (3)

To the energy (oil and gas) security supply:

- Domestic fossil energy to judiciously exploit and use
- Energy stabilization, reservation, and stockpiling to ensure the implementation and oil stoking obligations
- Consideration of gas-fired power development
- Imports to meet sufficient demand of power plants
- A national energy system to optimally allocate the supply of all sources based on the advantages of each region and area at the local level





Policy and regulation framework (4)

- The target for domestic production:

Oil production: 6-9.5 MM tons per year by 2030 and 7 – 9 MM tons/year by 2050

Gas production: 5.5 – 15 BCM/year by 2030 and aim for 10-15 BCM/year by 2050

Total capacity of refining upto 2025: 18 – 20 MM tons/year

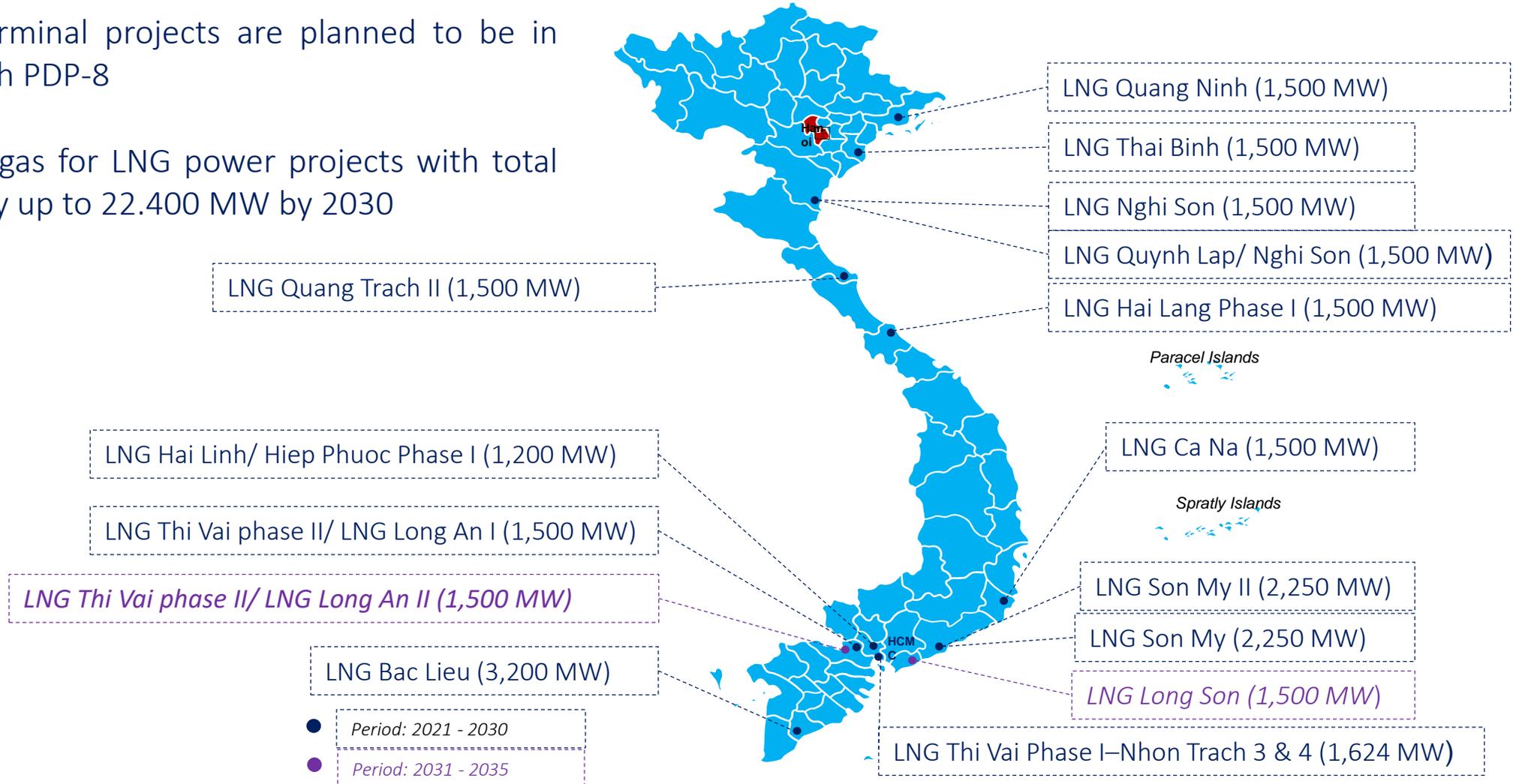
- Develop gas infrastructure to ensure sufficient capacity to meet 100% of gas demand for power generation and other uses
- LNG import capacity reaches about 15.7 - 18.2 BCM by 2030 and about 10.6 - 12.2 BCM by 2050
- Oil refinery plants to meet at the minimum 70% of the domestic demand
- Oil and petroleum product stockpiling system: 80 days of net import by 2030, 90 days – after 2030, in which:
 - Commercial stockpiling: about 30-40 days
 - Production stockpiling: about 20-25 days
 - National reserves: 15-20 days by 2030, 25 - 30 days after 2030





List of LNG-to-power projects

- LNG terminal projects are planned to be in line with PDP-8
- Supply gas for LNG power projects with total capacity up to 22.400 MW by 2030





List of hydrogen production projects

| No. | Title of project | Projected capacity (1,000 tons/yr) |
|-----------|---------------------------------|---------------------------------------|
| I | The 2026-2030 period | |
| 1 | Projects in the Northern region | 100 - 200 |
| 2 | Projects in the Central region | 200 - 400 |
| 3 | Projects in the Southern region | 200 - 400 |
| II | The 2031-2050 period | |
| 1 | Projects in the Northern region | 1,000 - 6,000 |
| 2 | Projects in the Central region | 3,000 - 12,000 |
| 3 | Projects in the Southern region | 3,000 - 12,000 |

THANK YOU VERY MUCH!