EPPO – Draft Natural Gas Management Plan 2024–2037
Slide-by-Slide English Overview 260101

Slide 1
Draft Natural Gas Management Plan
B.E. 2567–2580 (2024–2037)
(Gas Plan 2024)

Slide 2
Objectives
1. To procure sufficient natural gas to meet national demand
2. To manage natural gas infrastructure to ensure security and efficiency

Slide 3
Natural Gas Demand by Sector in 2023
- Power generation: 61.93%
- Industry: 17.62%
- Gas separation plants: 17.76%
- Transport: 2.70%

Historical natural gas demand (1986–2023):
- Power sector: average growth 5.14%
- Industry: average growth 5.55%
- Gas separation plants: average growth 0.39%
- Transport: average decline -4.54%

(Unit: MMSCFD @ 1,000 BTU/SCF)

Slide 4
Assumptions for Natural Gas Demand Forecast (Gas Plan 2024):
- Power sector demand aligned with PDP2024, including 5% hydrogen blending (by volume) for on-grid gas-fired power plants from 2030
- Industrial demand based on GDP growth (NESDC average 3.1% per year, 2022–2037)
- Transport demand based on declining NGV vehicle trends
- Gas separation plant demand based on domestic gas supply from the Gulf of Thailand

(Data for 2024 referenced from PMM meeting, 21 May 2024)

Slide 5
Projected Natural Gas Demand 2024–2037
Total national demand remains in the range of approximately 4,700–4,900 MMSCFD
Demand by sector:
- Power generation (EGAT / IPP / SPP)
- Industry
- Gas separation plants
- Transport

(Unit: MMSCFD @ 1,000 BTU/SCF)

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Comparison: Gas Plan 2024 vs Gas Plan 2018

- Forecast natural gas demand under Gas Plan 2024 is lower than Gas Plan 2018
- Main reason: increased share of clean energy in the power sector from 36% to 51%

(Unit: MMSCFD @ 1,000 BTU/SCF)

Slide 7

Natural Gas Supply Sources in 2023

- Domestic production: 56.88%
- Myanmar: 11.92%
- LNG imports: 31.20%

Historical natural gas supply (1986–2023)
(Unit: MMSCFD @ 1,000 BTU/SCF)

Slide 8

Natural Gas Supply Assumptions 2024–2037
Domestic gas:

- Gulf of Thailand and onshore fields based on DCQ (Daily Contract Quantity)
- Potential Gas Sources:
    1. Awaiting contract signing: Pailin, B8/32, Arthit expansion, JDA-B-17
    2. Under development: JDA-A18 extension, Yadana extension
    3. 50% of swing volume from existing contracts (5–15%)

Myanmar:

- Yadana, Yetagun, Zawtika fields maintained under existing contracts (as of June 2023)

LNG long-term contracts:

- Qatar: 2.0 MTPA (2015–2034)
- Petronas: 1.2 MTPA (2017–2036)
- Shell: 1.0 MTPA (2017–2037)
- BP: 1.0 MTPA (2017–2041)
- PTTGL: 1.0 MTPA (2026–2045)

Hydrogen:

- 5% hydrogen blending (by volume) for on-grid gas-fired power plants from 2030

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Projected Natural Gas Supply 2024–2037
Supply components:

- Domestic gas (Gulf of Thailand + onshore)
- Potential gas
- Myanmar
- LNG under existing contracts
- Additional gas / LNG procurement
- Hydrogen blending

(Unit: MMSCFD @ 1,000 BTU/SCF)

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Supply Comparison: Gas Plan 2024 vs Gas Plan 2018

- LNG import share under Gas Plan 2024 is lower than Gas Plan 2018
- Reasons:
    - Increased potential gas sources in the Gulf of Thailand and Myanmar
    - Partial substitution by hydrogen

(Unit: MMSCFD @ 1,000 BTU/SCF)

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LNG Receiving and Transmission System Plan – Case 1

- Supports LNG imports through the onshore gas pipeline network
- Contingency case where potential gas does not materialize
- LNG import capacity up to 29.8 MTPA

(Unit: MTPA)

Slide 12

LNG Receiving and Transmission System Plan – Case 2

- Supports LNG imports through the onshore gas pipeline network
- Contingency case where potential gas does not materialise and Myanmar gas supply is disrupted
- LNG import capacity up to 29.8 MTPA

(Unit: MTPA)

Slide 13

FSRU Development Plan

- Floating Storage and Regasification Unit (FSRU): 2.0 MTPA
- Supports LNG imports for southern power plants
- Applicable after expiration of JDA-A18 gas contract
- Supports gas demand of approximately 300 MMSCFD

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Future Natural Gas Infrastructure (approved as of December 2023)

- Gas transmission pipelines: approximately 4,904 km
- LNG terminal capacity: 29.8 MTPA
- Gas separation plants: 6 units (including GSP7 replacing GSP1, capacity 460 MMSCFD)
- Additional FSRU / LNG terminal capacity: 2.0 MTPA
- Pipeline upgrades to support new power plants

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Draft Gas Plan 2024 – Key Summary

Overview of Gas Procurement to Support National Demand

- Overall natural gas demand for the period 2024–2037 has declined compared with earlier estimates, but is still expected to remain in the range of 4,700–4,800 MMscfd.
- Gas procurement is more clearly defined, with greater reliance on potential gas sources in the Gulf of Thailand and Myanmar, leading to a reduction in LNG imports.

Additional Natural Gas Procurement from Domestic Source

- Additional domestic sources (e.g., OCA) are feasible but require long preparation timelines
- The plan can be adjusted to address uncertainty in gas procurement and declining Gulf production
- Existing infrastructure is sufficient for current demand but future expansion is needed for flexibility

Natural Gas infrastructure

- Gas infrastructure can adequately support current demand
- Future investments will enhance system flexibility
- The plan supports power generation, industrial and commercial use, and Thailand's potential role as a Regional LNG Hub