Navigating Bangladesh's Energy Crisis

Immediate Priorities and the Path to a Sustainable Energy Future

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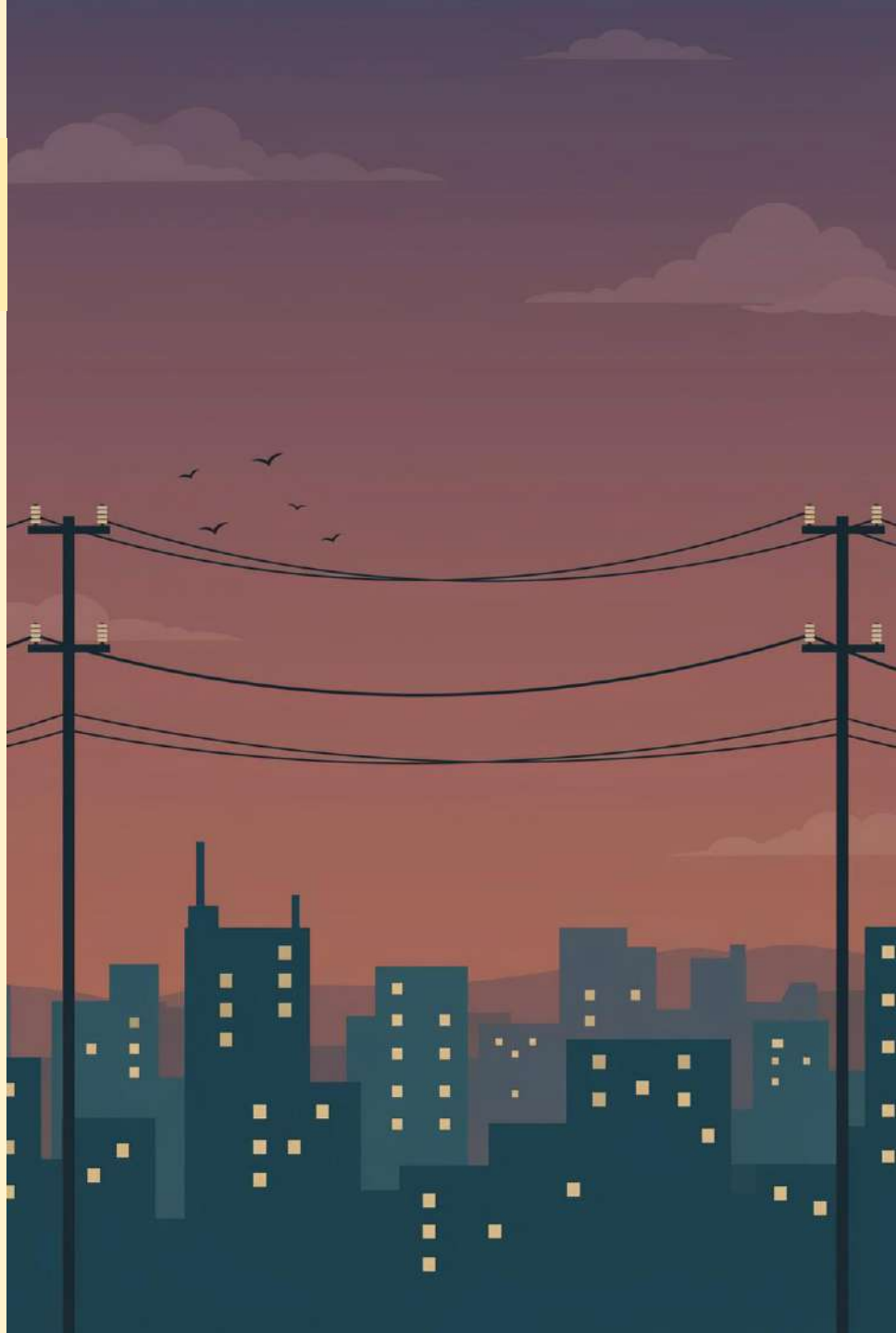

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Outline of the Presentation

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2. Bangladesh's Energy Mix
3. The Depleting Gas Reserve
4. The Illusion of Stability: Fossil Fuel Import Dependency
5. The Recent Energy Crunch: Industrial and Domestic Stagnation
6. Government Response Actions
7. The Path Foward
8. Conclusion
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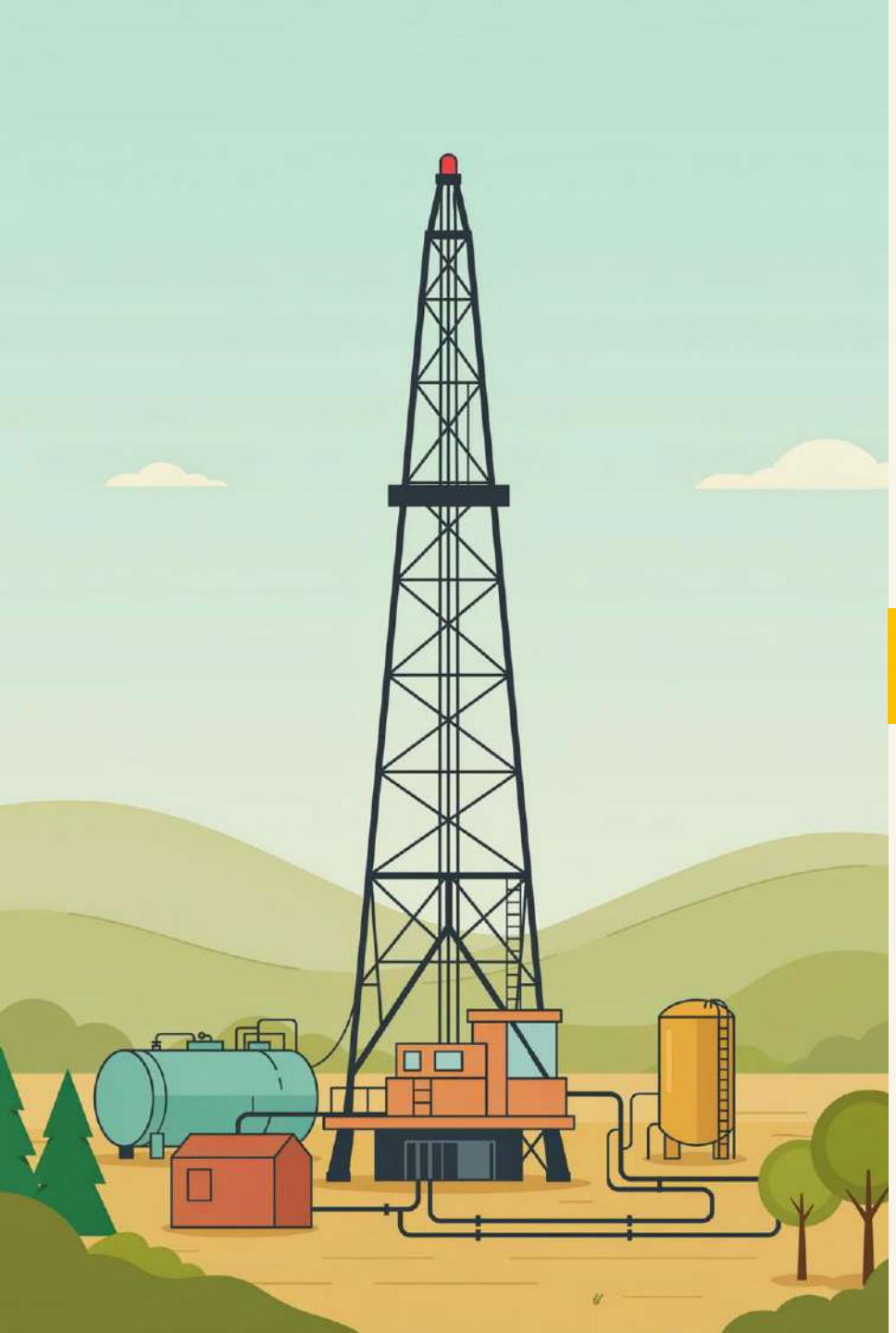


Background

Mounting Pressures on the Energy Sector

- ❑ Bangladesh's energy sector is among the most heavily subsidised sectors in the country
- ❑ Currently, the sector faces compounding pressures from global geopolitical shocks due to heavy reliance on imported fossil fuels (natural gas, LNG, and petroleum products) and a deepening domestic gas shortages

Energy Mix

Fossil fuel dominance with marginal renewables

Gas Shortage

Acute supply shortfall across all sectors

Geopolitical Risk

Import dependency amplifies external shocks

Action Measures Required

Combination of immediate short, medium, and long-term policy actions

Current Context

- Bangladesh's energy security has come under renewed pressure as the Middle East conflict disrupts Strait of Hormuz, one of the key global energy supply routes, which exposed deep structural vulnerabilities in the country's energy supply chain

Domestic Gas Production Shortfall

- Gas-fired plants represent **42.15% of BPDB's installed capacity** (12,472 MW as of June 2026)
- Current domestic gas production capacity is **~ 3,800–4,000 MMcfd**
- Available supply is **~2,600 MMcfd** (~ 60% generation out of total installed capacity)
- Structural shortfall of roughly **1,200–1,400 MMcfd** due to declining domestic gas reserve

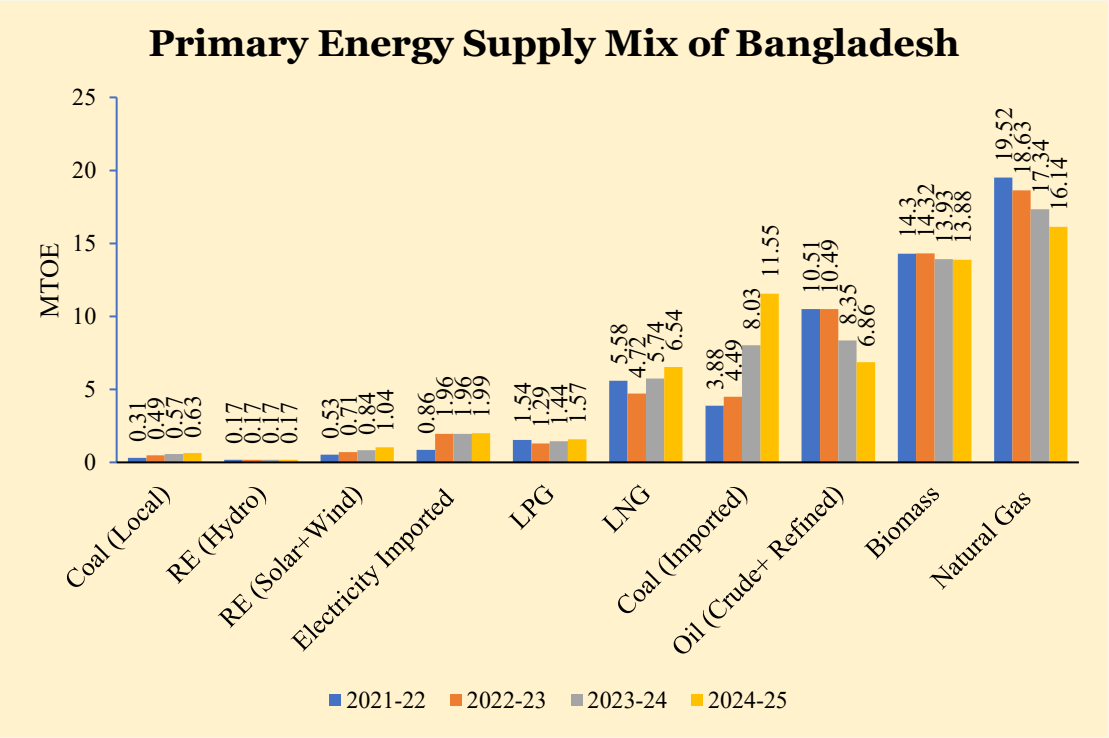
LNG Supply Disruption

- Imported LNG accounted for **28.82%** of national gas consumption in FY 2024-25
- Qatar reduced its scheduled LNG deliveries to Bangladesh by half following the conflict
  - Bangladesh received **19 cargoes from** before the conflict and none in the post period
- Petrobangla forced to procure **35 cargoes** from the expensive spot market
- Spot LNG prices surged to **USD 15.88–16.98/MMBtu**, up from ~USD 10/MMBtu earlier in 2026
- Petrobangla's LNG subsidy bill rose to **BDT 16,600 crore** which is nearly 3 times of the FY2025–26 allocation of BDT 6,000 crore
- The latest FSRU disruption also indicates the country's vulnerability of heavy reliance on imported fuel

⚠ Bangladesh's heavy dependence on imported fossil fuel was a manageable fiscal pressure earlier, but domestic gas reserve shortfall and global energy supply disruption has created a new threat to energy security requiring urgent policy action

Bangladesh's Energy Mix

Bangladesh’s Primary Energy Mix



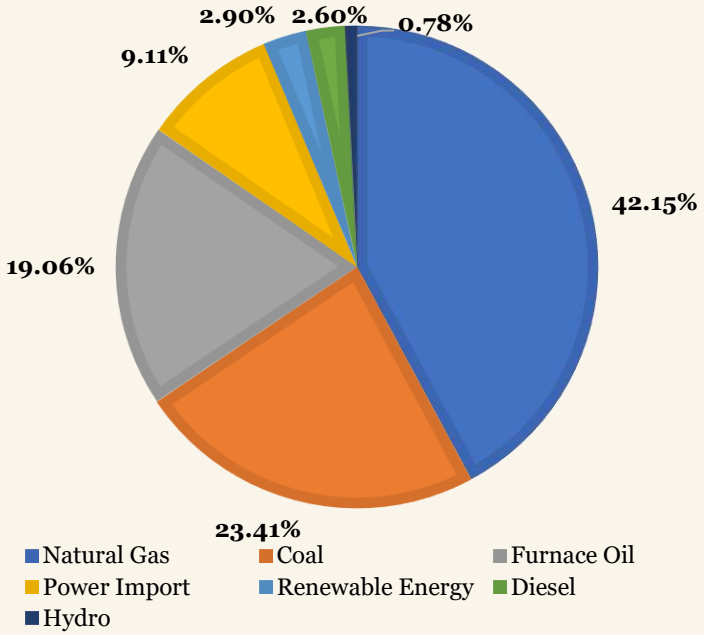
Source: Energy & Mineral Resources Division (2025)

Fossil Fuels Remain Dominant

- Bangladesh's primary energy mix is overwhelmingly dependent on fossil fuels
- Natural gas has historically been the dominant source, with oil and coal use increasing over time
- Renewable energy and hydropower contribute only a marginal share of the total primary energy mix

Bangladesh's Electricity Generation Mix

Bangladesh's power sector is heavily reliant on fossil fuels with natural gas, coal, and furnace oil **together accounting for over 84%** of total electricity generation capacity mix



Source: Bangladesh Power Development Board (2026)

Natural Gas

42.15% — Dominant fuel source used for baseload generation across the national grid

Coal

23.41% — Rapidly expanded share driven by recent large-scale plant commissioning

Furnace Oil

19.06% — Liquid fuel capacity filling supply gaps; expensive and import-dependent.

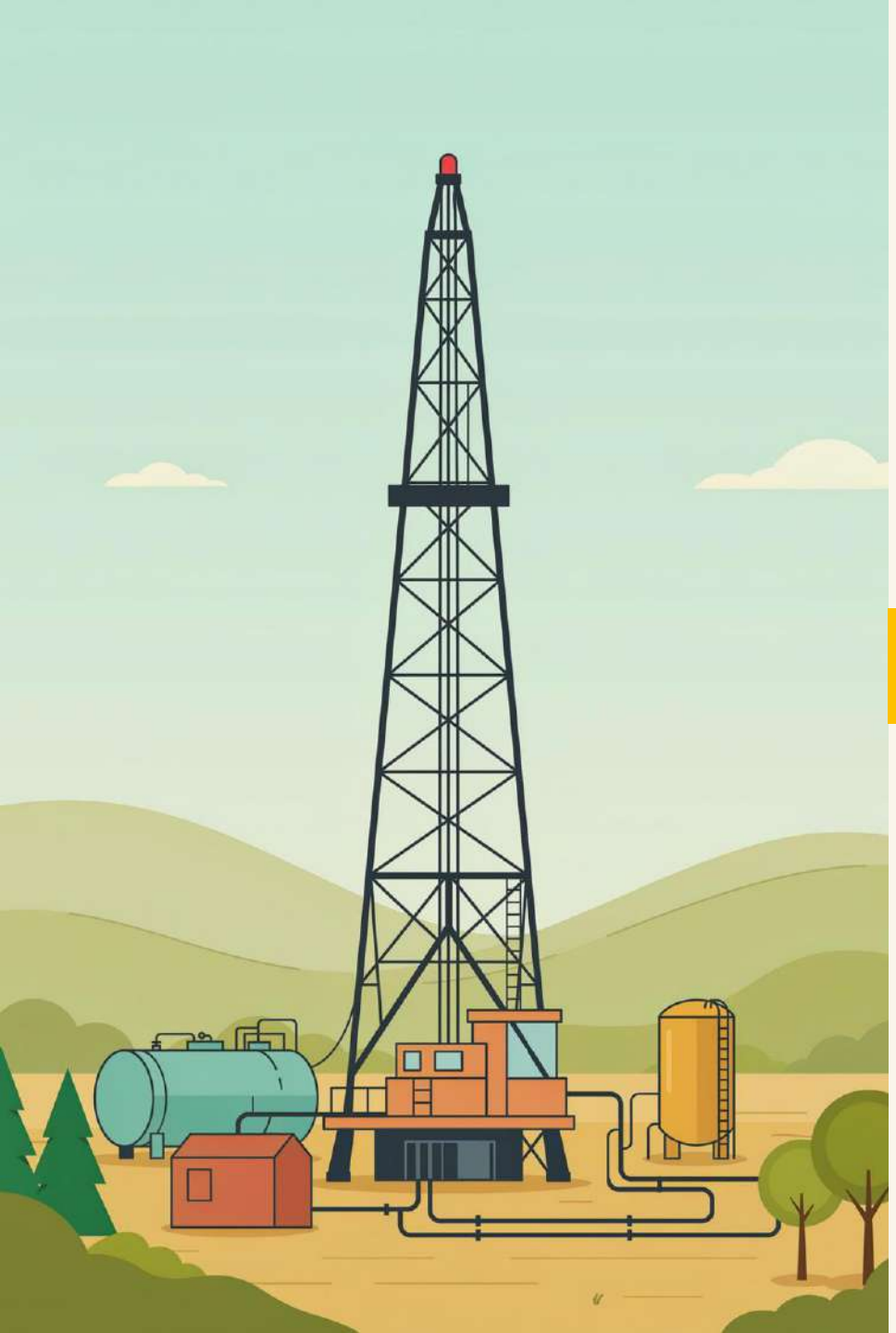
Power Import

9.11% — Cross-border electricity trade, primarily from India

Renewables & Hydro

3.68% combined — Renewable energy 2.90% & hydropower 0.78%

⚠ Bangladesh's electricity generation heavily dependent on fossil fuel which underscores the urgency of transitioning towards cleaner energy sources to meet climate commitments and long-term energy security goals



The Depleting Gas Reserve

A Shifting Energy Supply

- ❑ Natural gas has long been the backbone of Bangladesh's energy system
- ❑ But domestic gas reserves are declining and the gap between supply and demand is widening rapidly
- ❑ Recent data suggest a structural shift away from domestic production and towards imported fossil energy

📉 Domestic Gas

Supply from domestic natural gas fields is in decline as reserves are depleted faster than new fields are discovered

📈 Imported LNG

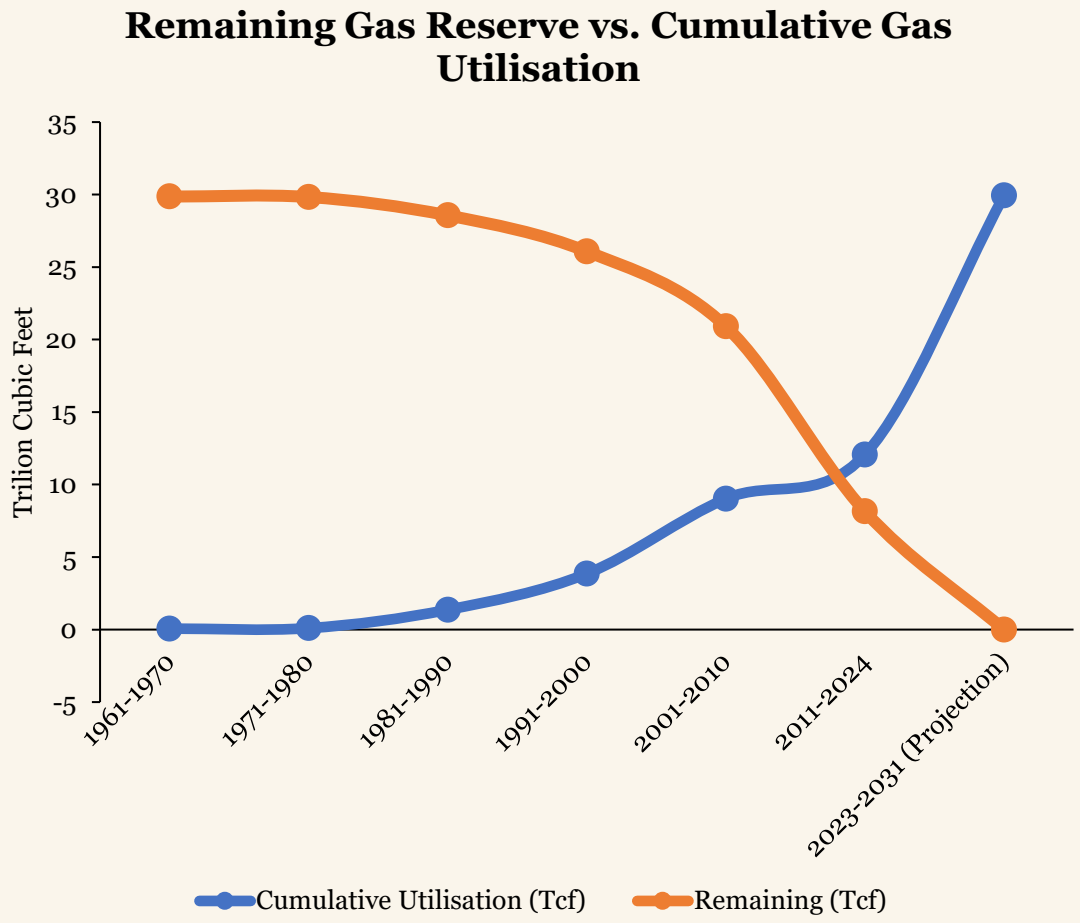
LNG imports have risen steadily since 2018, increasing Bangladesh's exposure to volatile international energy markets

🪨 Share of Coal on the Rise

Coal consumption has grown alongside LNG imports, deepening the country's fossil fuel dependency rather than reducing it

⚠ Bangladesh is not transitioning away from fossil fuels rather it is becoming more dependent on imported fossil energy to meet growing demand

Natural Gas Reserves Depleting, Utilisation Rising



Source: Energy & Mineral Resources Division (2025)

- Six decades of data reveal that cumulative gas utilisation will increase to **~30 Tcf by 2031**
- Remaining gas reserve is projected to near depletion by 2031

1961–2000

Cumulative gas utilisation grew slowly from negligible levels and reserve remained stable

2001–2024

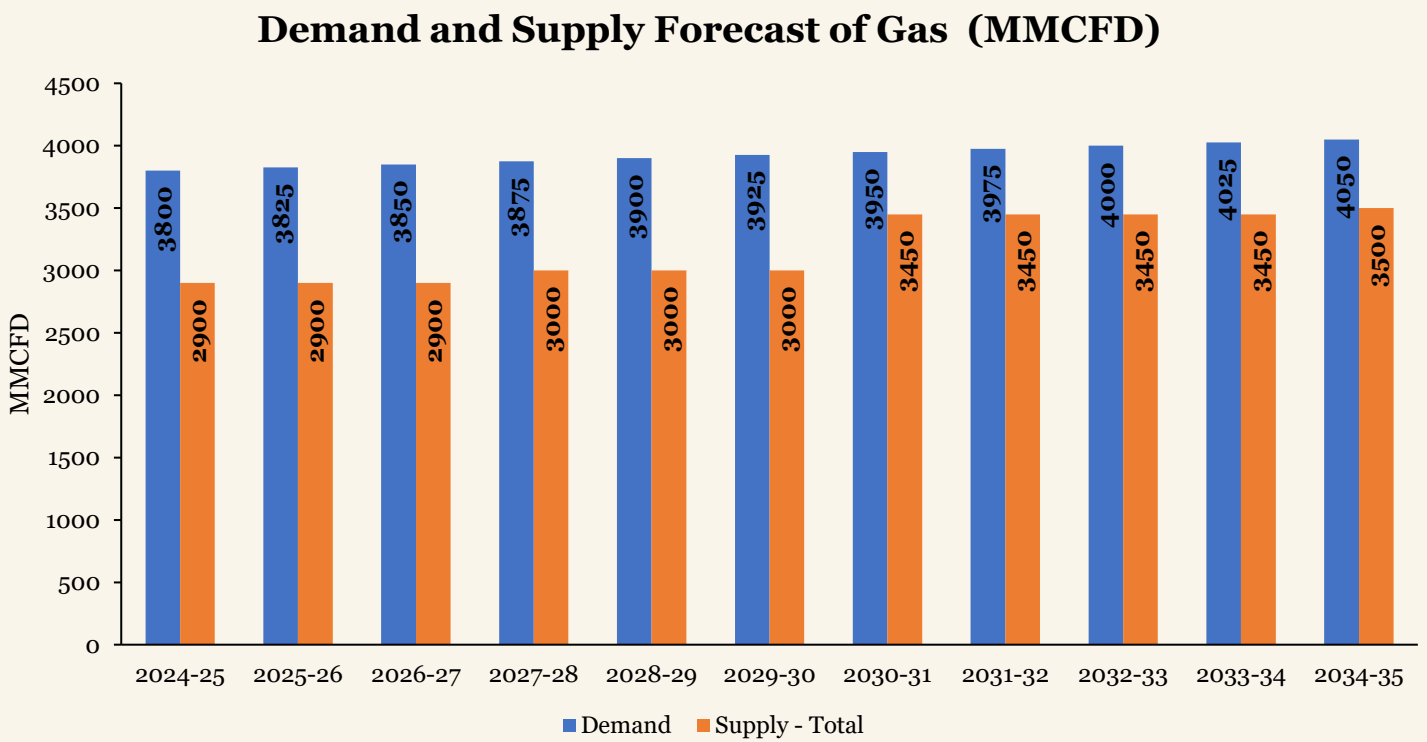
Gas utilisation climbs sharply as reserves fell below 10 Tcf, a critical crossover point reached

2023–2031 (Projection)

Gas utilisation is projected to reach ~30 Tcf and remaining reserves will approach exhaustion without new discovery or intervention

⚠ At the current rate of consumption, remaining gas reserves are on a trajectory toward critical depletion by the early 2030s and immediate intervention on conservation and domestic gas exploration is required

Gas Demand Outpacing Supply



Source: PetroBangla Annual Report 2023-24

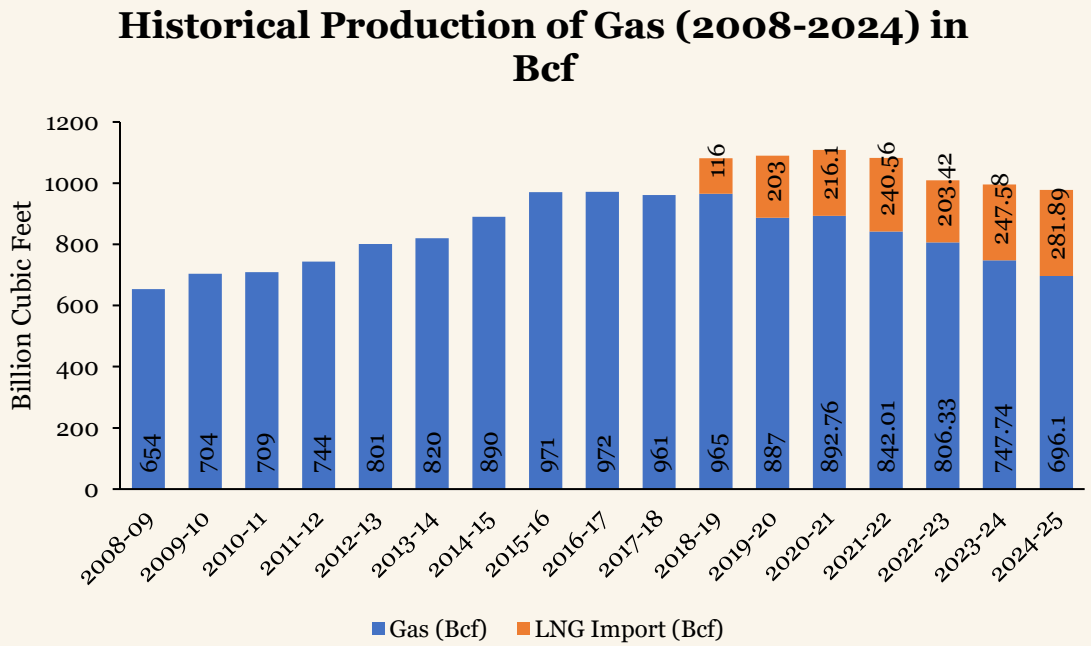
A Widening Structural Gap

- PetroBangla forecasts a growing gap between gas demand and available supply
- Domestic production is declining while demand from industry, power generation, and households continues to rise
- LNG imports are bridging part of the gap — but at significant fiscal and foreign exchange cost

The Illusion of Stability: Fossil Fuel Import Dependency

Increase in LNG Import

- Since 2018, Bangladesh began importing LNG and domestic gas production has trended downward as ageing fields mature, and exploration has failed to identify commercially viable new reserves



Source: Energy & Mineral Resources Division (2025)

2018

First LNG import shipment received — marking the start of structural import dependency

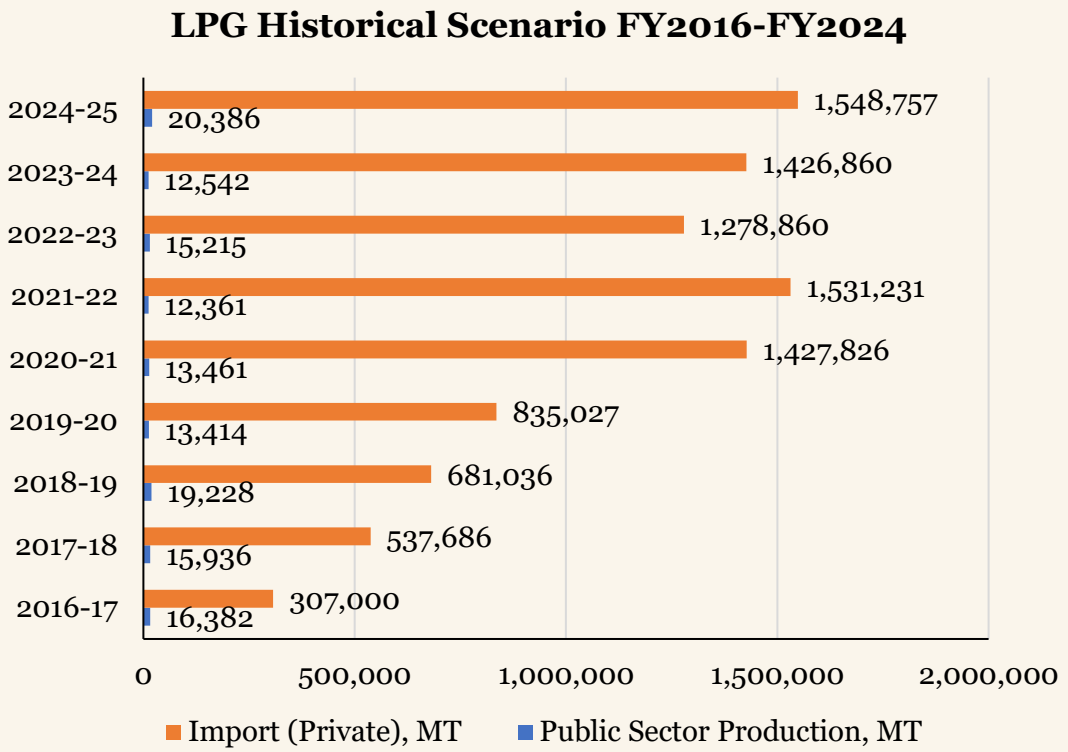
2025

LNG imports continue to rise year-on-year while domestic gas production declines

LPG: Another Import Dependency

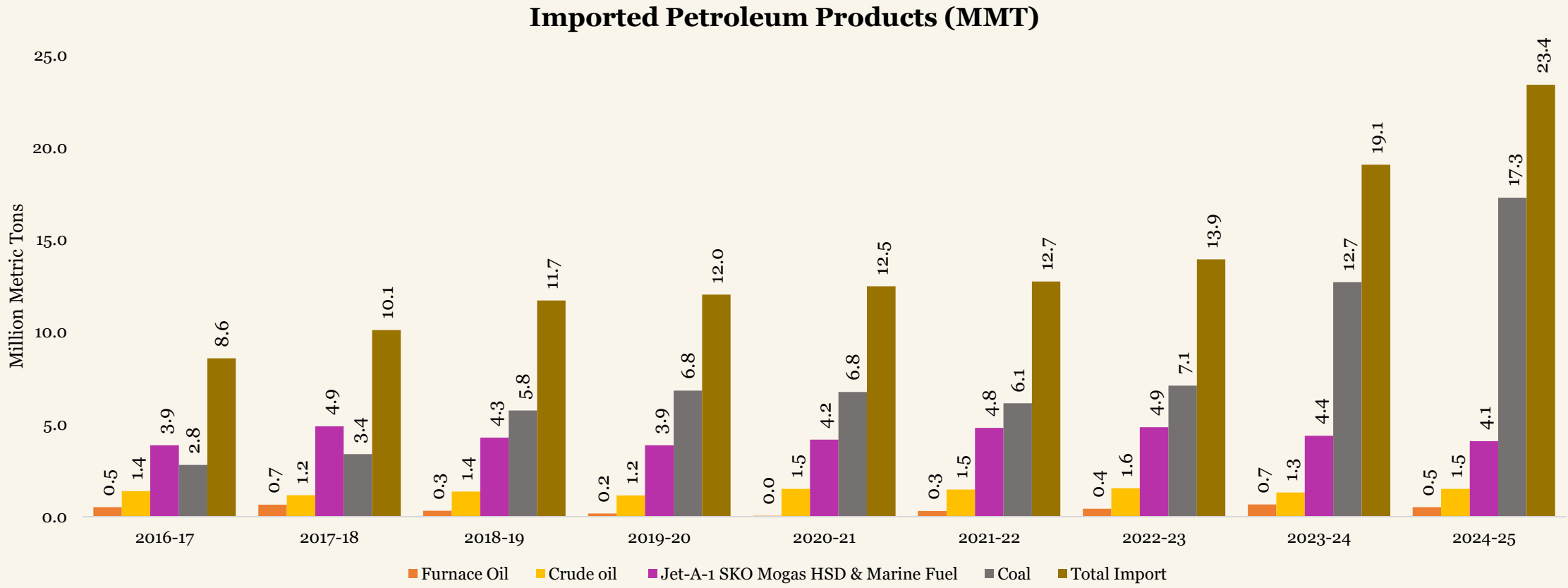
Lower Domestic Production

- Bangladesh produces only a small volume of LPG domestically
- The country is almost entirely dependent on LPG imports, primarily for household consumption
- Rising international LPG prices directly affect household energy affordability, disproportionately impacting lower-income group



Source: Energy & Mineral Resources Division (2025)

An Increasing Trend in Imported Petroleum Products

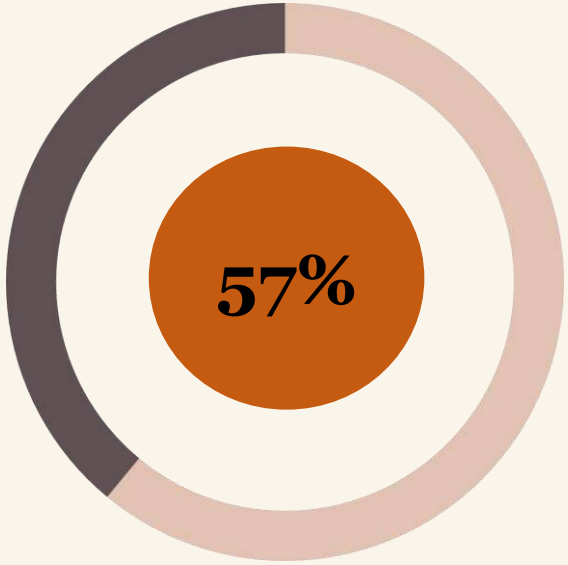


Source: BPC and Energy & Mineral Resources Division

The Recent Energy Crunch: Industrial and Domestic Stagnation

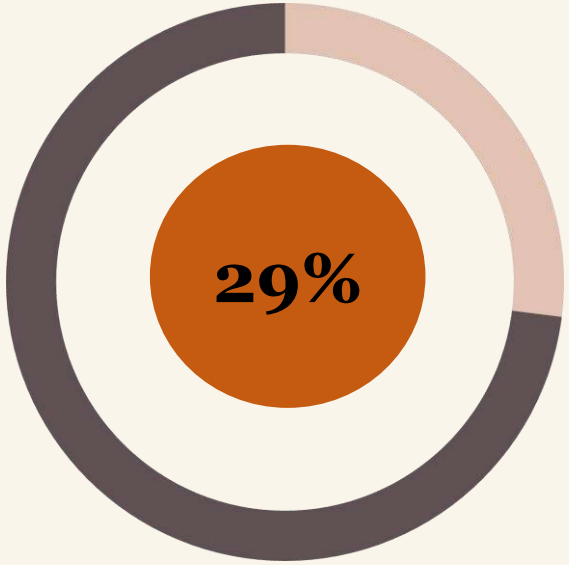
The Gas Shortages: August 2026

- As of 11 August 2026, Petrobangla's Daily Gas & Condensate Production and Distribution Report reveals a severe supply shortfall across all major end-use sectors



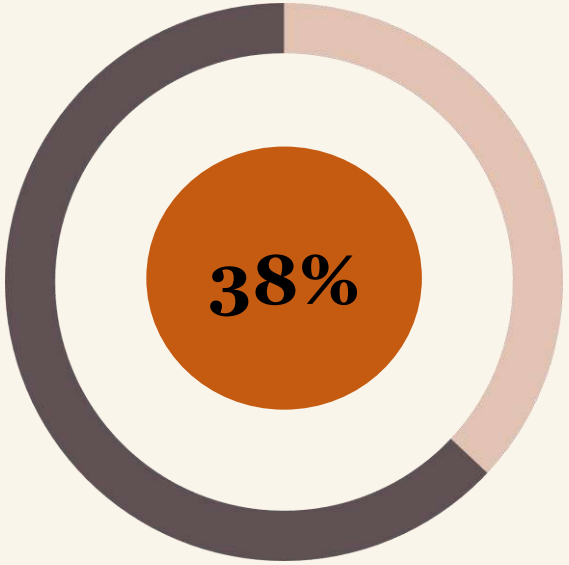
Gas Produced

Only 57% of operational capacity was utilised by the five gas producing companies



Power Sector Supply

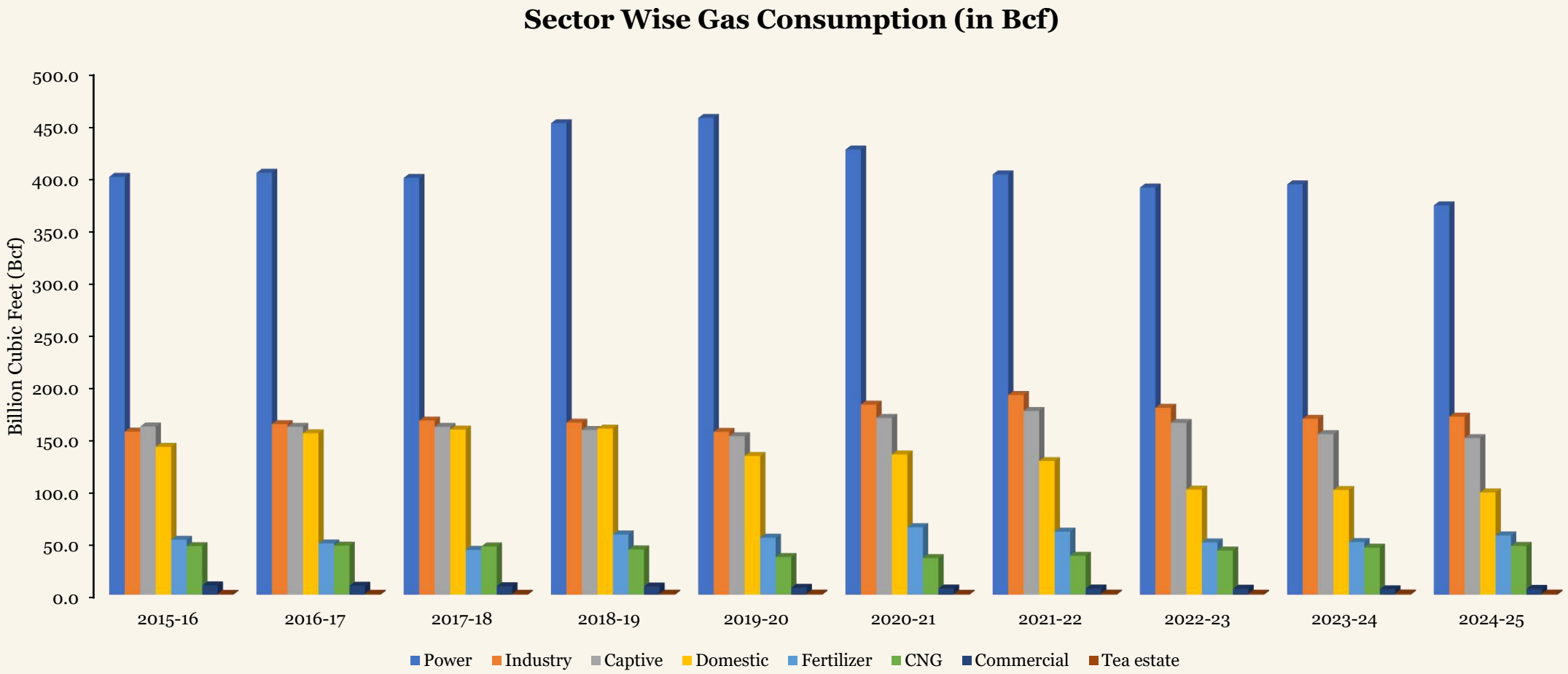
Only 29% of total gas demand by the power plants met by the six distributing companies



Fertiliser Sector Supply

Only 38% of the gas required by the fertiliser companies was supplied

Sector wise Gas Consumption Trend



Source: Energy & Mineral Resources Division

Main Reasons of the Gas Shortages

Infrastructure Constraints

Transmission and distribution bottlenecks limit the ability to deliver available gas to end users efficiently

Exploration Failures

Inability to discover new commercially viable gas fields has left Bangladesh unable to replenish depleting reserves

Demand–Supply Imbalance

Rapidly growing energy demand from industry, power, and households has outpaced both domestic production and import capacity

Import Dependency

Increasing reliance on imported LNG exposes the economy to international price volatility and supply disruptions

Consequences: A Crunch Across Sectors

Disrupted Industrial Production

Gas and fuel shortfalls have forced industrial units including garments and fertiliser plants to reduce or suspend production

Domestic Hardships

Households face difficulties in accessing to affordable energy for domestic consumption and rising fuel costs is affecting low-income families

Rising Transportation Costs

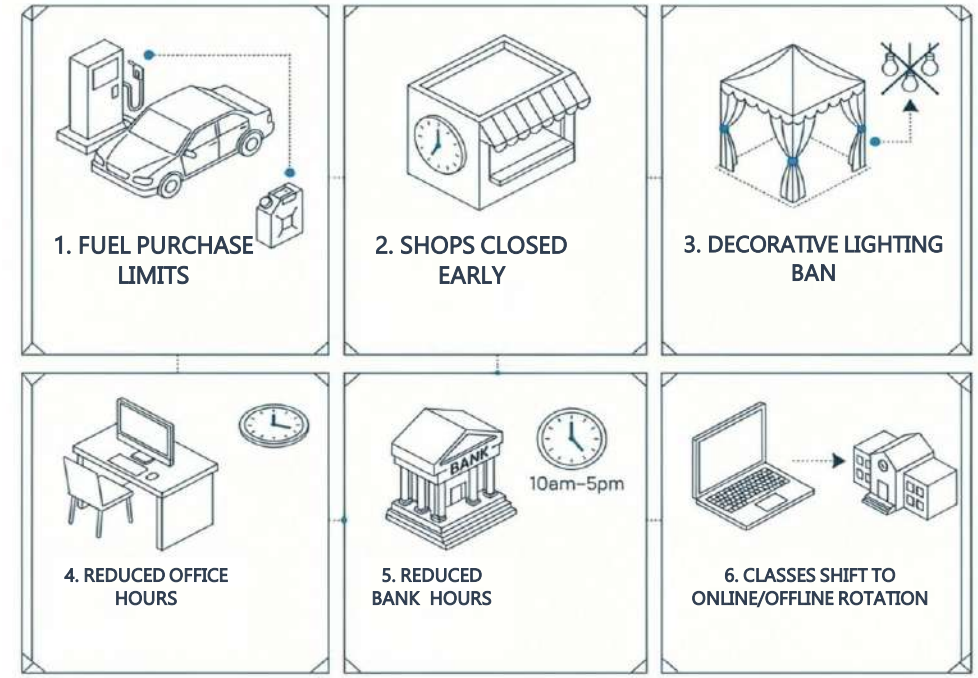
Fuel shortages and purchase limits have disrupted road transport, raising logistics costs across the economy

Government Response Actions

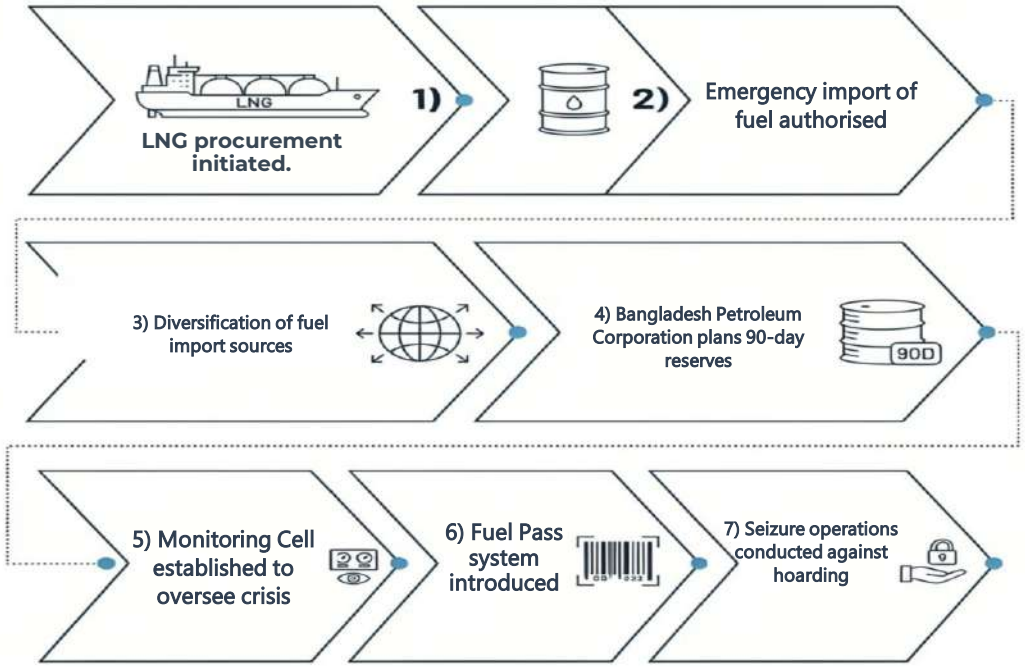
Government Response to the Energy Crunch

- Facing fuel and gas shortages, the Government of Bangladesh implemented a series of emergency demand-management and supply-diversification measures

Measures for Demand Side Management

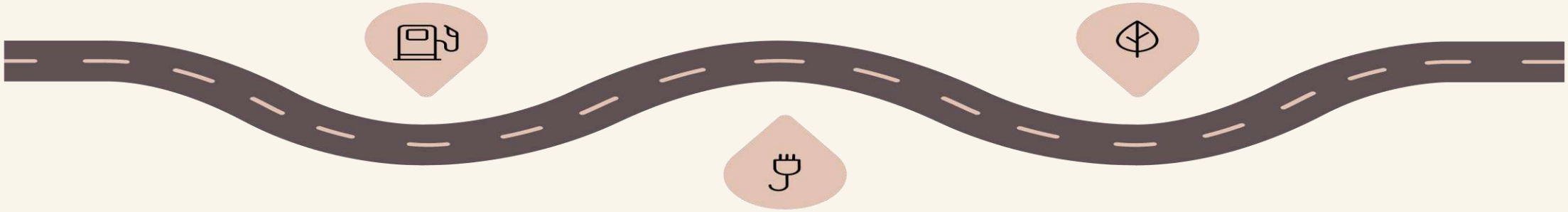


Measures for Supply Side Management



The Path Foward

Short, Medium & Long-Term Priorities



Short Term

- Optimise LNG procurement to reduce price volatility exposure
- Introduce pricing and regulatory reforms for efficient resource use
- Offer income protection to the most vulnerable by expanding social protection measures
- Review existing policies on private investment in the energy sector

Medium Term

- Expand LNG terminal and storage infrastructure
- Strengthen transmission and distribution system through targeted investment
- Adopt time-bound policies to diversify the energy mix
- Scale renewable energy with proactive policy frameworks

Long Term

- Improve institutional coordination across relevant ministries and divisions
- Build strategic fuel reserves to buffer against future shocks
- Prioritise domestic gas exploration as a strategic national emergency

The Path to a Sustainable Energy Future

- Bangladesh's energy crisis is both pressing and structural.
- Immediate measures can stabilise supply, but enduring energy security requires a fundamental transformation: accelerating domestic exploration, scaling renewables, improving distribution and transmission infrastructure, and reducing the country's dependence on imported fossil fuels

> The choices made today will determine whether Bangladesh's energy system becomes a driver of economic resilience — or a persistent constraint on its development ambitions.

Questions for Discussions

- How can Bangladesh reduce its vulnerability to disruptions in imported LNG supplies?
- Should domestic gas exploration now be treated as a strategic national emergency?
- What policy and investment reforms are needed to attract foreign investment in the energy sector?
- What institutional reforms are necessary to prevent the current energy crunch from becoming a recurring feature of Bangladesh's energy sector?
- How can Bangladesh reform energy pricing without disproportionately hurting low-income households?
- Can renewable energy substitute for a substantial share of natural gas in Bangladesh's electricity system in the long run?
- What are the biggest barriers to scaling solar and other renewable energy technologies—(land, financing, grid capacity, storage, regulation, or institutional capacity)?

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