Your Strategic Investment Destination

Energy Landscape of Bangladesh

Your Capital, Our Growth – A Winning Partnership



Energy and Mineral Resources Division

Ministry of Power, Energy and Mineral Resources

Disclaimer

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Acronyms and Abbreviations

BAPEX	Bangladesh Petroleum Exploration and Production Company
BCMCL	Barupukuria Coal Mining Company Limited
BIDA	Bangladesh Investment Development Authority
BPC	Bangladesh Petroleum Corporation
EMRD	Energy and Mineral Resources Division
ERL	Eastern Refinery Limited
FSRU	Floating Storage and Regasification Unit
FDI	Foreign Direct Investment
GIS	Geographic Information System
GSB	Geological Survey of Bangladesh
HM	Heavy Minerals
IOCs	International Oil Companies
LNG	Liquefied Natural Gas
LPG	Liquified Petroleum Gas
MGMCL	Maddhapara Granite Mining Company Limited
MMCF	Million Cubic Feet
MMT	Million Metric Ton
PPP	Public-Private Partnerships (PPPs)
PSC	Product Sharing Contract
SCADA	Supervisory Control and Data Acquisition
SEZs	Special Economic Zones
TCF	Trillion Cubic Feet
THM	Total Heavy Mineral
VHM	Valuable Heavy Minerals

Executive Summary

Embark on a transformative investment journey where energy drives national progress. Since Bangladesh is poised for exponential growth, Energy and Mineral Resources Division (EMRD) invites global partners to be part of this exciting story by unlocking a treasure trove of energy and mineral wealth. Our energy landscape features substantial reserves of high-purity natural gas, vast coal deposits, and a largely unexplored offshore domain. Moreover, there are significant mineral resources like heavy minerals and hard rock. There is ample scope of investment as energy demand surges at 10% annually, outpacing supply and creating clear market needs, particularly for gas and refined petroleum. There are huge investment-potentials in around 200-well drilling program, development of vital Liquefied Natural Gas (LNG) terminals and Floating Storage and Regasification Units (FSRU), construction of strategic pipelines, establishment of world-class refineries and petrochemical hubs, expansion of coal production and the extraction of valuable minerals. An attractive return on investment can be expected, driven by competitive, market-linked pricing and significant operational cost advantages. Most importantly, Bangladesh offers a range of lucrative incentives for investors: generous tax holidays, duty waivers, guaranteed profit repatriation, exceptionally favorable Offshore Model Production Sharing Contract (PSC), and access to a skilled workforce—making it a smart choice for energy investment. Join us, invest with confidence, and reap remarkable returns.

Energy Sector of Bangladesh:
Who We Are

EMRD: Pioneering the Energy Future

The Energy and Mineral Resources Division (EMRD) oversees and coordinates Bangladesh's energy transformation through:

08 Specialized Departments

23 State-owned Enterprises

Bangladesh Oil,Gas and Mineral Corporation (Petrobangla) — **13** Companies

Petrobangla: Tomorrow's Energy Icon

- Managing exploration, production and distribution of natural gas through 13 subsidiari companies
- Responsible for gas procurement from International Oil Companies (IOCs)
- Ensuring seamless gas distribution across industrial, residential and commercial sectors

Bangladesh Petroleum Corporation — **03** Oil Companies — **05** Others Companies

BPC: Fueling the Nation

- Handling import, refining, and distribution of petroleum products
- Oversees Eastern Refinery Limited (ERL), the country's sole oil refinery, which processes crude oil into finished petroleum products

Geological Survey of Bangladesh (GSB)

GSB: Unveiling Hidden Resources

- Leading mineral exploration and geological research
- Playing a crucial role in resource identification, geohazard analysis, and preceous mineral mapping

Bureau of Minerals Development

Department of Explosives

Bangladesh Petroleum Institute

Hydrocarbon Unit



Scope of Investment:
A Realm of Untapped Riches

Bangladesh holds a wealth of unexplored energy resources, offering a wide range of investment prospects.

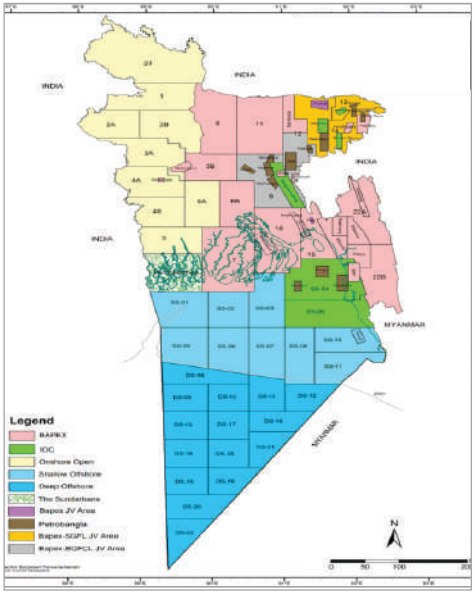


Key highlights include:

- **Hydrocarbon-rich Sediments**
  The Bengal Delta contains extensive hydrocarbon-bearing geological structures
- **Major Gas-Producing Regions**
  Sylhet is the largest gas-producing area, followed by Chattogram, Dhaka and Barishal
- **High-Purity Natural Gas**
  Bangladesh's gas contains 95–99% methane with minimal sulfur content

Gas Blocks & Reserves:

- 48 gas blocks: 22 onshore, 26 offshore (11 shallow sea, 15 deep sea)
- 29 gas fields with 20 currently operational
- Proven and probable reserves of 29.74 trillion cubic feet (TCF)
- Offshore zone (118,813 sq. km) with potential gas hydrates (17–103 TCF equivalent)



Rising Petroleum Demand:

- Bangladesh consumes 7 million metric tons of petroleum annually, relying heavily on imports
- Demand is rising 4% annually





Extensive coal deposits:

- Substantial coal reserves, estimated at approximately 7661 MMT

Hard Rock:

- An estimated reserve of 174 MMT of hard rock and granite



Diversed Valuable Mineral Deposits:

- Heavy minerals such as zircon, garnet, and rutile are abundant in riverbeds and coastal regions
- Holds 18.6 million ton zircon, 12.4 million ton rutile, 86.6 million ton ilmenite, 1.2 million ton monazite
- $2.3 trillion estimated value of natural mineral resources (coal limestone, hard rock, clay, heavy minerals)
- 7.82 billion+ metric tons of coal (High-grade, low-sulfur bituminous coal)
- Limestone (est. 25 billion tons)
- Hard rock (est. 174 million tons)
- White clay (est. 230 million tons)

Current Energy Situation:
A Dynamic Growth Trajectory

Natural Gas Demand & Supply:

The daily demand is around 4,000 MMCF, with national production at 2,200 MMCF and an additional 800-900 MMCF met through LNG imports.

Projected Demand:

6,000 MMCF daily demand by 2026-27

8,500 MMCF daily demand by 2030

Expanding Petroleum Needs:

Current annual demand is 7 million metric ton

Demand is increasing by 4% annually

Expected to reach 12 million metric tons by 2030

ERL meets up only 1.5 million ton (20% of total demand)

4.5 million metric ton refined oil has to import

LPG Imports:

Annual demand for LPG is 1.3 MT

By 2030, LPG demand could rise to 3 MMT

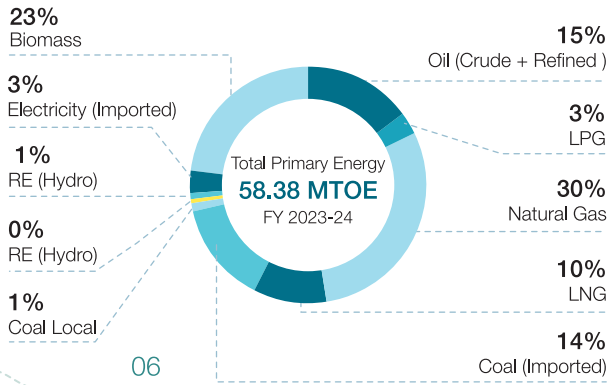
Rapidly expending LPG market nearly 100% dependent on imports

Coal Reserves:

Current mining operations meet only a part of the national requriment

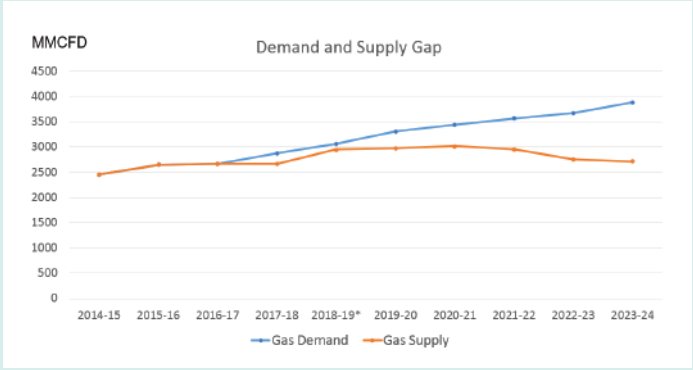
Amoung the five coalfields (Barapukuria, Dighipara, Phulbari, Khalispur, Jamalgani) only Barapukuria is currently operational.

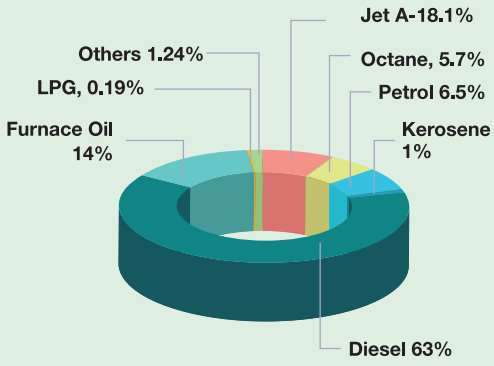
Primary Energy Supply, 2023-24 (MTOE- metric ton oil in equivalent)



Natural Gas Demand Supply and Gap

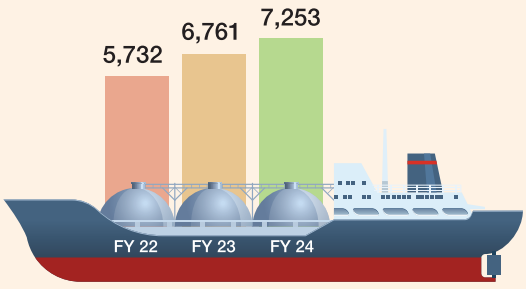
Million Cubic Feet per Day



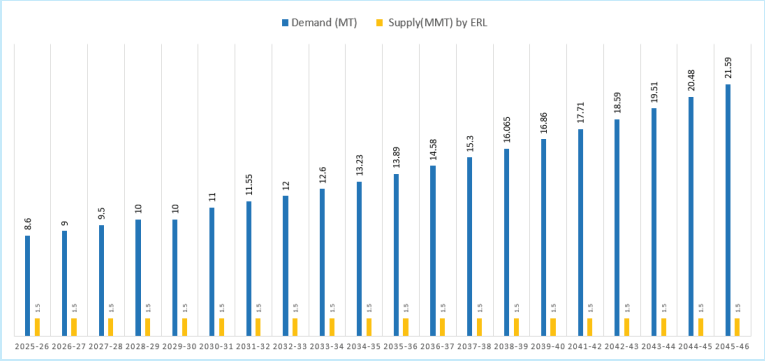


Bangladesh LNG Imports

Average Million Cubic Meter (MMCM)



Projections of Petroleum oil demand and domestic supply gap



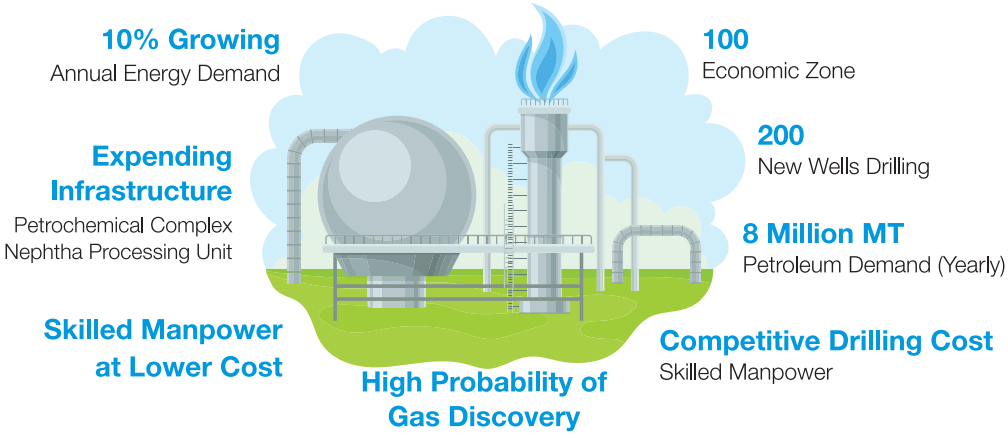
The supply-demand gap presents an urgent, profitable opportunity for investors across the energy value chain.

Why Invest in Bangladesh?

The Smart Choice for Energy Investment

Key Investment Highlights

- **10% Annual Energy Demand Growth**
  A booming market with increasing consumption
- **Unexplored offshore region**
  Potentialy rich in convensional gas and gas hydrates
- **200 New Wells Drilling**
  Vast untapped potential for exploration
- **High Probability of Gas Discovery**
  One in three fields has significant extraction potential
- **Competitive Drilling Costs**
  Among the lowest in the region
- **Expanding Infrastructure**
  Refineries, LNG terminals, and pipeline networks
- **Skilled Workforce & Competitive Wages**
  Well-trained labor force at lower costs
- **Strategic Location**
  Gateway to South and Southeast Asian markets
- **Investor-Friendly Policies**
  Attractive incentives and enable regulatory framework



Key Areas of Investment:

Potential areas for G2G/PPP/private investment model

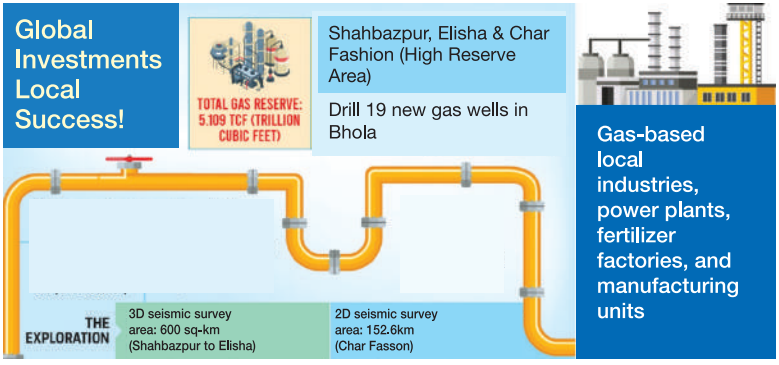
Bangladesh invites strategic partnerships and foreign direct investment across a diverse portfolio of high-priority projects:



Pioneering Oil and Gas Exploration:

- 200-well drilling initiative
- Onshore focus, targeting 800-1000 MMCFD additional supply of gas by 2029,
- Conducting essential 2D/3D seismic surveys
- Unlocking the potential of high-reward offshore blocks under attractive PSC terms
- Deploying advanced technologies for enhanced recovery and field development (e.g., Bhola gas hub)
- Exploring the frontiers of gas hydrates and CBM

Bhola Gas Hub:





Building World-Class LNG Infrastructure:

Land based LNG Terminal at Matarbari, Cox's Bazar

- With a storage capacity ranging from 500,000 m^3 to 750,000 m^3
- Will have a re-gasification capacity and a send-out rate (the guaranted R-LNG delivery rate) of a least 1000 MMCFD
- Public-Private Partnership (PPP) model
- Cost approximately $1.5 billion
- Will connect to the national gas-grid via the 295 km Moheshkhali-Bakhrabad pipeline, which will further extend its reach across the country

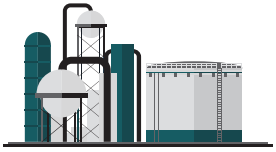
Floating Storage and Regasification Unit (FSRU) at Maheshkhali, Coxs Bazar:

- With a regasification capacity of 600 MMCFD, on Built-Own-Operate (BOO) basis.
- PPP Model or G2G



Forging Vital Energy Pipeline Connectivity:

- Construction of a 3rd parallel gas transmission pipeline (295 km long) from Maheshkhali to Bakhrabad
- Bhola-Barishal-Dhaka 220 km gas transmission pipeline
- Feasibility studies are ongoing
- Government-to-Government (G2G)/PPP/Private Investment



Establishing Modern Petroleum Refining Capacity:

- Oil Refinery 2: 3 million metric tons annual capacity
- Oil Refinery 3: 6 million metric tons annual capacity

Your Investment Dream: Petroleum Sector

Bangladesh Demands (per year)

5 MMT of diesel

1 MMT of petrol

0.5 MMT of octane

0.5 MMT of furnace oil

Annual demand 15 MMT by 2030

1.5 MMT process locally and 4.5 MMT has to import

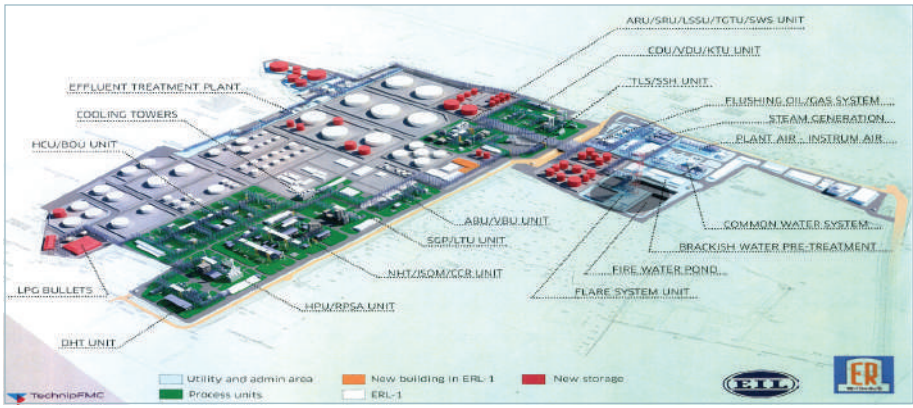
Only one refinery Meet only 20% demand 80% has to import

Set up oil refinery 2 with a capacity of 3 MMT

ERL processes 33000 barrels per day

Daily demand 239,750 barrels

Oil Refinery 2



- With a capacity of refining 3 MMT of crude oil annually
- To process 66000 barrel crude oil per day
- To produce EURO 5 quality refined oil
- Two new products: lobe base oil and Sulphur below 10 ppm
- To save price of crude oil $19 per barrel

Oil Refinery 3

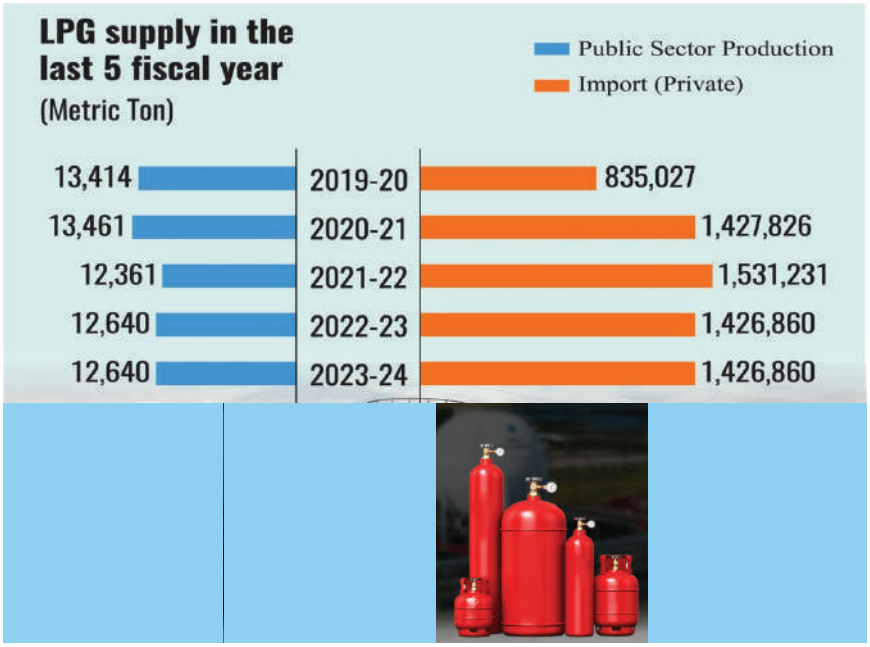


- With a capacity of refining 6 MMT of crude oil annually
- To process 1,32,000 barrel crude oil per day
- To produce EURO 6/7 quality refined oil



Developing Robust LPG Infrastructure:

- LPG Storage & Distribution Hubs: Terminals in Patenga (Chattogram) and Maheshkhali (Cox's Bazar)







Creating High-Value Petrochemical Industries:

- Establishing a Naphtha Processing Plant
- Investing in large-scale Petrochemical Complexes

Bangladesh's petrochemical industry holds significant potential for growth

- The import of chemicals in Bangladesh has been increasing at an average rate of 12% over recent years
- Bangladesh's textile industry, one of the world's largest, depends on synthetic fibers and dyes from petrochemicals.
- Abundant raw materials such as Naphtha, Condensate etc. will be available from crude oil processing of ERL and various gas fields.
- To establish a petrochemical complex featuring a 750 KTPA (kilotons per annum) propane dehydrogenation (PDH) unit and a 500 KTPA polypropylene (PP) unit, including ethane and propane handling facilities, at an estimated cost of (approximately $2.5 billion).



Driving Capacity of Hard Rock and Granite Mining

- An estimated reserve of 174 million tonnes of hard rock and granite
- MGMCL only produces 10% of total demand
- Expending hard rock/granite production to meet national construction needs

Hard Rock:

- Reserves of hard rock in Maddhapara is approximately 201 million tons
- Valued at $5.42 billion



Unlocking Coal Potential:

- Extracting the untapped coal reserves in fields like Dighipara, Phulbari and Barapukuria

Coal:

- Coal reserves, estimated at over 7,250 MMT
- Valued around $1.3 trillion
- Reserves are primarily located in the northern regions such as Dinajpur and Rangpur

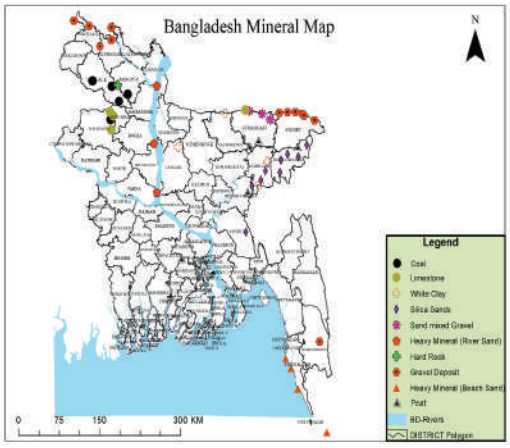
Name of Coal Mine	Depth of Coal Seam (meter)	Total Coal Resource (million ton)
Barupukuria	118-509	410
Phulbari	150-270	572
Khalaspir	239-485	523
Jamalganj	640-1158	5450
Dighipara	320-506	706
		7661



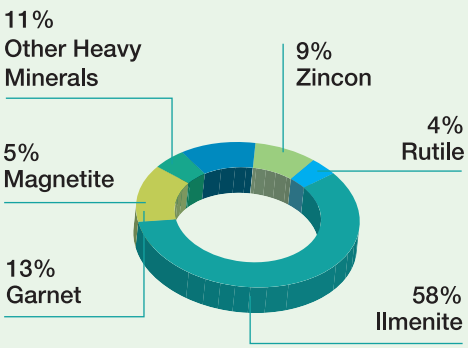
Harnessing Mineral Wealth:

- Heavy minerals from rivers and coasts' deposits
- Example: Jamuna River's sandbar deposits ilmenite, magnetite, garnet, zircon, rutile, and monazite.

Untapped Mineral Resources: Sustainable Investments for a Brighter Tomorrow!



- Bangladesh's extensive river systems, notably the Brahmaputra (Jamuna) and Meghna rivers include significant concentrations of heavy minerals (HMs) such as zircon, garnet, ilminate, rutile etc.
- Eight types of natural mineral resources are worth more than $2.26 trillion.
- Huge opportunities have been created to extract valuable minerals from riverbeds.
- Everlast Mining Company, an Australian company, has already been involved in river mining.



8 Heavy Minerals 1.761 Million Tons

Mineral Resources:

Valuable heavy minerals (VHMs) such as magnetite, ilmenite, garnet, and zircon constitute about 25–30% of the THM content

Brahmaputra River contains an average total heavy mineral (THM), concentration of approximately 10.73% by weight

Jamuna river holds 18.56 million ton zircon, 12.38 million ton rutile, 86.63 million ton ilmenite, 1.24 million ton monazite

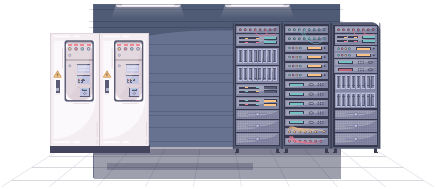
Southern islands and Southeast coastal areas of Bangladesh holds 2.08 million ton zircon, 21.0 million ton rutile, 7.5 million ton Garnet, 1.24 million ton monazite 0.18 million illmenite & monazite









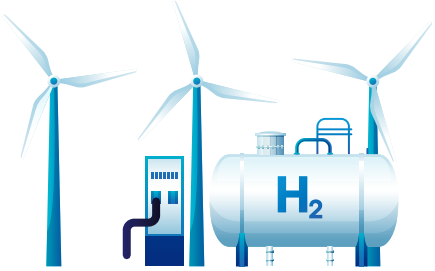



Enhancing productivity through digitalization:

Implementing cutting-edge digital technologies (SCADA, GIS, Smart Depots) across the energy transmission and distribution networks.

Renewable Energy & Green Investments

Hydrogen Economy: Exploring potential for hydrogen fuel infrastructure.





Facilities Provided for Investors:
A Supportive and Enabling Environment

Investor Incentives: A Gateway to High Returns

Bangladesh offers:

Lucrative Benefits for Foreign Investors

- 100% Tax Holiday: Upstream energy projects enjoy full tax exemptions for initial years
- Customs Duty Waivers: No import duties on exploration, drilling, and refining equipments and machineries
- Profit Repatriation: Guaranteed and unrestricted repatriation of profits, royalties, and capital investment
- Land and Infrastructure Support: Government-backed land acquisition and infrastructure facilitation

Additional support:

- Public-Private Partnerships (PPPs)
- Special Economic Zones (SEZs)
- Land acquisition and infrastructure support for projects
- Structured FDI process



Return on Investment (ROI):
The Smart Choice for Energy Investment

Model PSC by Petrobangla

Key Features of the Bangladesh Offshore Model PSC 2023

- Offers an uncapped, attractive gas price linked to international market
- Corporate income tax liability will be borne by Petrobangla for IOCs
- No pipeline tariff is applicable for both shallow and deep-sea blocks
- Various fees and bonuses, including a $3 million fee for a commercial discovery of oil and gas in the contract area
- Production bonuses ranging from $0.5 to $6 million based on production levels
- Production Period is 25 years for gas field and 20 years for oil field
- If commercial production continues then provision for an additional 10 years of extension
- Attractive provisions of 70% cost recovery
- Export flexibility and investment protections

FDI Entry Process in Offshore Drilling

Step 1: EoI & Bidding

Petrobangla invites Offshore Bidding Round to invite IOCs to submit their technical and financial proposals

Step 2: Bid Evaluation

Bids are evaluated on the basis of technical & financial capability, proposed work program and profit sharing

Step 3: Licensing & Approvals

Cabinet Committee for Economic Affairs (CCEA) / Adviser's Committee for Economic Affairs (ACEA)

Step 4: Exploration & drilling operations

Conduct 2D/3D Seismic Survey, Wells Drilling & operation

Step 5: Revenue generation & profit sharing

Market-linked pricing for offshore gas (Brent Crude benchmark at 10%)
Expected pricing: $7-10/MMBtu or highter

Present Investors in Bangladesh's Energy Sector

Gas Sector

- Bibiyana Gas Field, the largest producing field in Bangladesh, is operated by Chevron Corporation.
- Originally discovered by Occidental Oil in 1998
- Later operated by Unocal, and taken over by Chevron, which began production in 2007
- Bangora Gas Field was discovered by Tullow Oil in Block 9 and later handed over to KrisEnergy as operator
- KrisEnergy also held a 45% interest in the offshore Sangu Gas Field, located in the now relinquished Block SS-11

Current Operators:

Chevron

KrisEnergy

26
Offshore



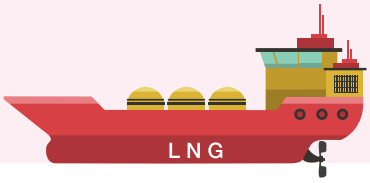
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Onshore

LNG Sector

- Bangladesh began importing LNG in August 2018 to meet growing energy demand.
- Excelerate Energy developed the first Floating Storage and Regasification Unit (FSRU) at Maheshkhali, Cox's Bazar, with a capacity of 600 MMCFD
- Launched a second terminal with equal capacity in the same region

Current Operators

Excelerate Energy
Summit LNG



Coal Mining

- The country's only active underground coal mine is Barapukuria Coal Mining Company Limited (BCMCL) under Petrobangla
- Mining began in 2005 through a Joint Venture (JV) between BCMCL and a Chinese Consortium consisting of XMC and CMC

Current Operators

BCMCL–Chinese Consortium (XMC & CMC)

Hard Rock Mining
Current Operators

MGMCL-Germania Trest Consortium

Minerals Mining
Current Operators

Everlast Mining Company



Conclusion:

Partnering for Mutual Prosperity

Partner with Bangladesh. Prosper with Purpose.

The energy sector of Bangladesh is a high-potential investment landscape—rich in resources, growing in demand, and backed by a strong policy and incentive framework. Whether you're exploring, producing, refining or innovating, Bangladesh welcomes you to be a part of this journey. EMRD is committed to transparency, partnership, and progress. Invest in Bangladesh's energy future. The time is right. The opportunity is real. Let's grow—together.

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Bangladesh Towards Bright Future



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Ministry of Power, Energy and Mineral Resources