

**PETROBANGLA**  
Bangladesh Oil, Gas and Mineral Corporation

# Annual Report 2022-23



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## our Vision

To provide energy for sustainable economic growth and maintain energy security of the country

## our Mission

- To enhance exploration and exploitation of natural gas
- To provide indigenous primary energy to all areas and all socio economic groups
- To diversify indigenous energy resources
- To develop coal resources as an alternative source of energy
- To promote CNG, LNG and LPG to minimize gas demand and supply gap as well as to improve the environment
- To contribute towards environmental conservation of the country
- To promote efficient use of gas with a view to ensuring energy security for the future

# Message

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## Muhammad Fouzul Kabir Khan

### Adviser

Ministry of Power, Energy and Mineral Resources  
Government of the People's Republic of Bangladesh



I am happy to note that Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) is going to publish its Annual Report 2022-23 highlighting the activities of Petrobangla and its companies.

As the flagship organization of the country's primary energy sector, Petrobangla serves a diverse range of users, including power plants, fertilizers, CNG, industries, and commercial entities. It is tasked with exploring, developing, producing, transmitting natural gas and importing LNG, as well as extracting coal. Additionally, Petrobangla is involved in extracting granite, which is used as construction materials. Through these activities Petrobangla is playing an important role as the driving force of economic growth of the country.

Primary energy is the main driving force of the country's economy. We are now at a critical juncture where our increased reliance on imported LNG, has led to the depletion of valuable foreign reserves. Despite inheriting vast maritime resources, no concrete steps were taken in the past decade to explore and extract oil and gas from our seas, leaving these resources untapped. As a result, traditional energy production has declined, exacerbated by a failure to adopt modern technologies to sustain gas production.

The current interim government has already begun taking decisive steps to address the energy crisis. These initiatives include suspending activities under quick enhancement of Electricity and Energy Supply (Special Provision) Act, 2010 to Increase competition in energy supply and enhanced exploration activities aimed at increasing domestic gas production. Petrobangla's strategic focus is closely aligned with this vision.

Petrobangla and its subsidiaries have been pioneers in ensuring the country's energy security. I am confident that Petrobangla will continue to meet future challenges to ensure a sustainable energy sector.

I sincerely convey my thanks to the officials associated with the publication of the Annual Report 2022-23. I wish the continuous progress of Petrobangla in the days to come.

Muhammad Fouzul Kabir Khan

# Message

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## Mohammad Saiful Islam

Secretary

Energy and Mineral Resources Division

Ministry of Power, Energy and Mineral Resources

Government of the People's Republic of Bangladesh



I am delighted to know that Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) is going to publish its Annual Report for the fiscal year 2022-23. I would like to thank all the officials who have contributed to publish this report.

Energy is considered to be lifeline of an economy which contributes to scale up the living standards of the people. Since there is a gap between gas demand and supply, Petrobangla has undertaken programmes to enhance domestic gas production from indigenous sources. To identify new exploration areas, three companies of Petrobangla are conducting several seismic surveys. 'Bangladesh Offshore Bidding Round, 2024' has been announced for oil and gas exploration in Offshore blocks. Petrobangla has also identified some potential relinquished onshore blocks, and preparation of a revised 'Onshore Model PSC 2024' is underway.

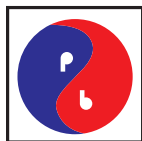
In addition to its endeavor for fostering production and supply of gas from indigenous sources, Petrobangla has already installed two Floating Storage and Re-gasification Units (FSRU) at Moheshkhali of Cox's Bazar for regasifying imported LNG. Mining of coal and granite are also contributing in power and construction sector respectively.

I pin high hope that Petrobangla and its affiliated companies will continue to play their role in achieving energy security through unwavering dedication, commitment and team work.

Mohammad Saiful Islam

# Introduction

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## Zanendra Nath Sarker

Chairman  
Petrobangla



Natural gas has been the principal fuel in the country for quite a long period of time due to its versatile use and affordable price. It has been playing a very important role in the economy of Bangladesh since the early 1960s. Although the energy mix of Bangladesh is diversifying slowly, indigenous natural gas still accounts for about three-quarters of the total amount of commercial primary energy, which is also more than half of the total primary energy supply of the country. It is indeed a great challenge to ensure an unstinting supply of natural gas to sustain the economic growth of the country against the backdrop of sharply rising demand.

I am delighted to present the Annual Report, 2022-23 of Bangladesh Oil, Gas and Mineral Corporation (Petrobangla). It provides an overview of the key activities, projects and performances of the corporation in the said financial year, as well as the future plans and priorities of the organization.

Bangladesh Oil, Gas and Mineral Corporation (Petrobangla), the apex organization in the country's primary energy sector, entrusted with the responsibilities of exploration, production, transportation and the marketing of natural gas along with extracting mineral resources in the country, has been continuing its endeavors to make natural gas available to its consumers at a reasonable price and plays a vital role fueling the economy. Along with its traditional role of producing and supplying fuel from indigenous sources, Petrobangla has been acting as an importer and marketer of Liquefied Natural Gas (LNG) since August, 2018 in order to supplement indigenous natural gas to meet demand.

The gradual transformation of the country's economy from an agrarian to an industrial one, marked by higher economic growth and consequent uplift in the standard of living have called for rapid growth in energy demand in recent years. To accommodate this increasing demand of gas, Petrobangla has implemented a number of projects like increasing gas production from indigenous sources and importation of LNG. Among such projects "46 wells drilling" is one, which are targeted to be completed by 2025. Out of 46 wells, 5 exploratory wells has been drilled and work-over of 2 wells has been completed already. Through these, the production of 60 Million Cubic Feet per Day (MMcfd) gas has been ensured. Ilisha, the 29th gas field of Bangladesh has been discovered in Bhola District. The initial reserve estimation of this gas field is approximately 200 Billion Cubic Feet (BCF). The outcome of these projects ensured gas supply of around 3,000 MMcfd (including re-gasified LNG) in this FY.

In FY 2022-23, Petrobangla companies and International Oil Companies (IOC) produced 800 BCF of natural gas, which was equivalent to 19.2 Million Metric Tons of Oil Equivalent (MTOE), worth 12.51 billion USD. The lone coal mining company of Petrobangla, BCMCL extracted about 7,67,307.465 metric tons of coal. On the other side, about 2.73 million barrels of condensate were extracted from natural gas during this period. Petrobangla supplied indigenous energy all together equivalents to 20.03 MTOE, worth more than 13 billion USD from its gas fields and coal mine in this FY.

In addition to above, Petrobangla has imported around 202.89 BCF of LNG and supplied to the national gas grid after re-gasification in 2022-23. So in general, Petrobangla and the companies under its umbrella provided fuel, accounting for around three-quarters of the country's total commercial energy supply in FY 2022-23. Thus, Petrobangla has become the lifeline of the economy of the country.

Since the first discovery of natural gas in Bangladesh in 1955, until today, 29 gas fields have been discovered in this country. The total initial recoverable proven plus probable (2P) gas reserve of 29 fields has been estimated to be at 28.79 Trillion Cubic Feet (TCF); out of this the estimated proven (1P) recoverable reserve is 21.82 TCF, Up to June, 2023 as much as 20.33 TCF gas was produced, leaving only 8.46 TCF of recoverable gas in the 2P category. Currently, 20 gas fields are in production, with 107 wells on stream. Gas supply in the country increased from 600.86 BCF in FY 2007-08 to 1,002.89 BCF, (including RLNG) in FY 2022-23, due to various development programmes undertaken by Petrobangla. In FY 2022-23, a total of 932.4 BCF gas was consumed by eight customer categories. Power sector consumed the largest share, about 389.4 BCF (41.8%), followed by industry and captive power, which consumed 178.8 BCF (19.2%) and 164.3 BCF (17.6%) respectively; fertilizer 50.1 BCF (5.4%), domestic 100.6 BCF (10.8%), CNG 42.3 BCF (4.5%) and commercial and tea estates together accounted for 6.9 BCF (0.7%) in FY 2022-23.

Although the problem of energy shortage has been shadowing our country for a long time, the pace of exploration has been rather slow, leaving large areas of the country still unexplored or underexplored. To come out of this paradox, BAPEX has conducted 1,289 line kilometers (lkm) of 2D seismic survey and 391 square kilometers (sqm) of 3D seismic survey in this FY 2022-23. Further programmes have been taken to conduct 3,220 lkm of 2D seismic survey in block 6B South and 10 and 580 sqm of 3D seismic survey in Zakiganj and Patharia West. On the other side, production companies of Petrobangla have embarked on the implementation of extensive programmes of gas augmentation that include the drilling of 19 exploratory wells, 11 development wells and 16 workover of wells by 2025, which will add approximately 618 MMcfd. For this, time-bound action plan has been confirmed and accordingly approvals of Development Project Proposal (DPP) of different projects are under process.

In order to augment energy supply and thereby support the development of Bangladesh, Petrobangla is importing LNG and Re-gasified Liquefied Natural Gas (RLNG) is being supplied to the national gas grid via two Floating Storage and Re-gasification Units (FSRU), installed at Moheshkhali having capacity of 500 MMcfd each. Further, to install a land-based LNG terminal at Matarbari, Cox's Bazar, the feasibility study for previously selected site had been completed and an RFP had been issued to the shortlisted terminal developers. In addition to meet up the future gas demand Petrobangla has planned to install the 3rd FSRU at Moheshkhali and the 4th FSRU at Payra.

In accordance with the two long-term Sale and Purchase Agreements (SPA), Qatargas, Qatar and OQ Trading Limited, Oman are supplying LNG to the said terminals. Additionally, Master Sale and Purchase Agreements (MSPA) were signed with 21 suppliers to import LNG from the spot market. Also, Petrobangla has signed LNG Sale and Purchase Agreements (SPA) with QatarEnergy Trading LLC, Qatar on 30 May, 2023 and OQT, Oman on 19 June, 2023 for importing more LNG from the year 2026.

In order to attract more investment in Offshore oil and gas exploration, an agreement was signed between TGS-SCHLUMBERGER JV and Petrobangla to conduct a total of 32,000 lkm of 2D non-exclusive multi-client seismic survey in a phased manner in the Offshore area of Bangladesh. The objective of

this survey is to provide the oil and gas industry with 2D non-exclusive multi-client seismic data of the Offshore areas in order to help with basin evaluation, prospect generation and robust bid round participation. In the 1st phase 12,642 lkm of 2D seismic data acquisition has been completed on 8 April, 2023. Processing of the acquired data was in progress. Considering the post-pandemic international oil and gas market situation, Petrobangla took an initiative to further improve the fiscal terms of the Offshore Model PSC 2019 by engaging a reputed international consulting firm.

During FY 2022-23, the Petrobangla and its companies contributed to the national exchequer an amount to the tune of Tk. 13,055.68 crore and saved a considerable amount of foreign exchange by substituting the import of fuel.

Petrobangla is duty-bound to continue its all-out efforts to maximize the supply of fossil fuels in the country and ensure our national energy security. It is diligently trying to fulfill its obligation towards the nation.

I hope that this issue of the Annual Report will be helpful as a reference book and will provide elements of interest for those concerned.



**Zanendra Nath Sarker**

# Board of Directors (Incumbent)



**Zanendra Nath Sarker**  
Chairman  
Petrobangla  
**Chairman of the Board**



**Nasrin Sultana**  
Additional Secretary  
Finance Division  
**Director of the Board**



**Md. Aknur Rahman, Ph.D.**  
Joint Secretary  
EMRD  
**Director of the Board**



**Dr. Sadia Sharmin**  
Joint Secretary  
Planning Division  
**Director of the Board**



**Md. Altaf Hossain**  
Director (Administration)  
Petrobangla  
**Director of the Board**



**A K M Mizanur Rahman**  
Director (Finance)  
Petrobangla  
**Director of the Board**



**Engr. Md. Kamruzzaman Khan**  
Director (Operation and Mines)  
Petrobangla  
**Director of the Board**



**Md. Abdul Mannan Patwary**  
Director (Planning)  
Petrobangla  
**Director of the Board**



**Engr. Md. Rafiqul Islam**  
Director (Production Sharing  
Contract), (Additional Charge)  
Petrobangla  
**Director of the Board**

# Past and Present Chairmen of Petrobangla

No.	Name	Tenure
01	Dr. A. Y. M. Habibur Rahman	21.04.1972 - 14.06.1976
02	Dr. Nazrul Islam	19.07.1976 - 14.02.1980
03	Syed Hasan Ahmed	18.02.1980 - 05.10.1981
04	M. A. Faiz	12.10.1981 - 28.02.1983
05	Gr. Capt. Qazi Aftab Ahmed, psc	01.03.1983 - 26.05.1984
06	Shafiul Alam	26.05.1984 - 27.08.1984
07	Jalaluddin Ahmed	27.08.1984 - 10.03.1985
08	Md. Habibur Rahman	07.04.1985 - 09.10.1988
09	Jamiluddin Ahmed	10.10.1988 - 03.12.1988
10	Lt. Col (Retd.) Heshamuddin Ahmed, psc	03.12.1988 - 25.11.1989
11	Ataul Karim	27.11.1989 - 31.12.1990
12	M. A. Lutful Matin	01.01.1991 - 09.05.1992
13	S.K.M. Abdullah	09.05.1992 - 31.12.1995
14	Dr. Mujibur Rahman Khan	04.01.1996 - 25.05.1996
15	Md. Mosharraf Hossain	25.05.1996 - 31.12.1996 15.04.1997 - 22.05.2001
16	Professor Dr. Md. Hussain Monsur	05.07.2001 - 01.11.2001
17	Syed Sajedul Karim	03.12.2001 - 28.04.2003
18	S.R. Osmani	30.04.2003 - 30.10.2005
19	A.M.M. Nasiruddin	30.10.2005 - 14.12.2005
20	M Musharraf Hossain Bhuiyan	14.12.2005 - 09.01.2007
21	Md. Wahidunnabi Chowdhury	14.01.2007 - 14.02.2007
22	Dr. Sheikh Abdur Rashid	14.02.2007 - 24.09.2007
23	Jalal Ahmed	24.09.2007 - 19.04.2009
24	Major Md. Muqtadir Ali (Retd.)	19.04.2009 - 18.10.2009
25	Professor Dr. Md. Hussain Monsur	18.10.2009 - 17.10.2014
26	Istiaque Ahmad	23.10.2014 - 21.12.2016
27	Abul Mansur Md. Faizullah, ndc	01.01.2017 - 29.11.2018
28	Md. Ruhul Amin	29.11.2018 - 29.10.2019
29	A B M Abdul Fattah	13.01.2020 - 25.11.2021
30	Nazmul Ahsan	06.12.2021 - 15.12.2022
31	Zanendra Nath Sarker	02.01.2023 - Incumbent

# The Genesis

Bangladesh Minerals, Oil and Gas Corporation (BMOGC) was established pursuant to President’s Order No. 27 of 1972 for dealing with the exploration and development of oil, gas, and mineral resources of the country. The activities of the corporation relating to minerals were segregated and placed under a new organization named Bangladesh Mineral Exploration and Development Corporation (BMEDC), which was formed by President’s Order No. 120 of 1972. Later, BMOGC was substituted as Bangladesh Oil and Gas Corporation (BOGC) and also short-named “Petrobangla” by Ordinance No. XV of 1974. Through Act No. LXX of 1974, Oil and Gas Development Corporation (OGDC), established by Ordinance No. XXXVII of 1961, was repealed and all its assets and liabilities were transferred to and vested in the BOGC (Petrobangla). On 13 November, 1976, by promulgation of Ordinance No. LXXXVIII, the import, refining, and marketing of crude oil and petroleum products were separated and vested in the newly formed Bangladesh Petroleum Corporation (BPC). BOGC and BMEDC were merged into a single entity under the name “Bangladesh Oil, Gas and Mineral Corporation” by the Bangladesh Oil, Gas, and Mineral Corporation Ordinance, 1985 (Ordinance No. XXI of 1985).

Finally, the Bangladesh Oil, Gas, and Mineral Corporation Ordinance, 1985 (Ordinance No. XXI of 1985) was repealed and brought up to date with necessary amendments and modifications by Act No. 19 of 2022 and an act named the Bangladesh Oil, Gas, and Mineral Corporation Act, 2022, was enacted in Bengali and the corporation was named Bangladesh Oil, Gas and Mineral Corporation (Petrobangla).



Orientation programme of newly appointed officers at Petrobangla

# Functions and Powers of Petrobangla

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Petrobangla has been assigned the following functions by the Bangladesh Oil, Gas, and Mineral Corporation Act, 2022:

The functions of the Corporation shall be as follows, namely: -

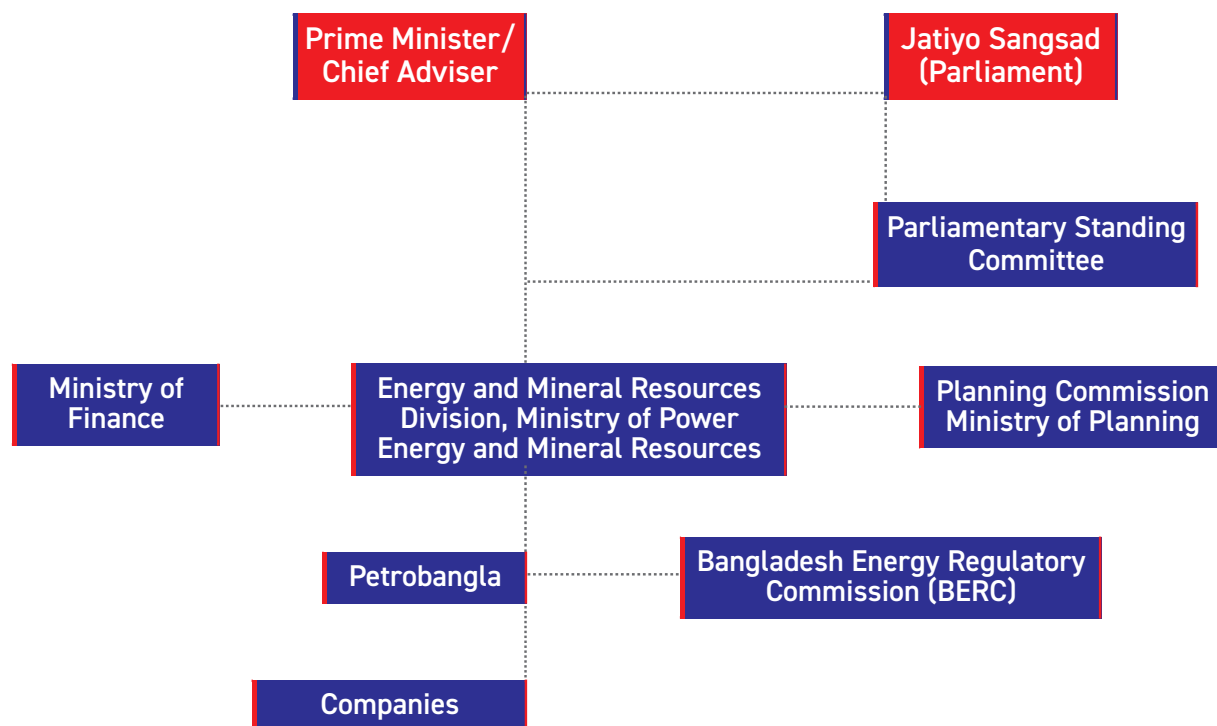
- a. to collect, store and process all types of information in the field of oil, gas and minerals and conduct research;
- b. to undertake projects, prepare work plan, implement, and manage programmes for the exploration and development of mineral oil, natural gas, and mineral resources;
- c. to produce, purchase and sell gas and mineral resources;
- d. to import, marketing, export and management of liquefied natural gas (LNG);
- e. to set up process plants for the production, fractionation, and processing of liquefied petroleum products obtained as gas by-products from domestic sources and to sell them;
- f. to carry out geological, geophysical and other surveys for the exploration and development of oil, gas and mineral resources;
- g. to explore oil, gas and mineral resources through survey, drilling, and undertaking other exploration activities in order to assess their availability, estimate their reserves and collect necessary data through adoption of the most suitable extraction and mining methods for the purpose of extracting the mineral resources;
- h. to establish oil, natural gas and mineral industries and continue the production and sale of the extracted petroleum and mineral products;
- i. to contribute towards the costs of any studies, experiments or technical research connected with the functions of the Corporation and undertaken or done in the interest of the Corporation by any other person, body or agency;
- j. to undertake, assist and encourage the collection, maintenance and publication of statistics, bulletins and monographs relating to the work of the Corporation;
- k. to appoint, transfer and position the chief executive officers of companies under the Corporation;
- l. to transfer or post the Deputy General Managers and officers above that rank of the Corporation and its subsidiary companies to the Corporation and its other subsidiary companies.
- m. to transfer or depute competent officers of the Corporation and its subsidiary companies to the Corporation or other subsidiary companies of the Corporation in case of special circumstances or project or technical reasons;
- n. to supervise, coordinate and control all the activities of the companies under the Corporation;
- o. to enter, with the approval of the Government, into contracts or memorandums of understanding with domestic and foreign companies to fulfill the objectives of this Act;
- p. to perform function relating to oil, gas and mineral resources declared by the Government, from time to time, by notification in the Official Gazette;
- q. to carry out other duties to fulfill the objectives of this Act;

# Petrobangla and the Government

Presently Petrobangla operates as a public sector statutory body pursuant to Bangladesh Oil, Gas and Mineral Corporation Act, 2022. The general direction and administration of the affairs and business of the corporation vest in its Board of Directors. It is the policy making and managing body of the corporation, with members from Energy, Finance and Planning Ministries. The Board in discharging its functions acts on commercial consideration having due regard to public interest. The corporation is under the administrative control of the Energy and Mineral Resources Division of the Ministry of Power, Energy and Mineral Resources. The corporation also has a close relationship, through the Ministry of Power, Energy and Mineral Resources, with the Ministry of Finance and the Planning Commission for its development programmes. There is also an active relationship between the corporation and other functional bodies, such as Bangladesh Energy Regulatory Commission, National Board of Revenue, the Department of Explosives and the Department of Environment for relevant purposes.

The activities of the corporation are reviewed and examined by the Public Accounts Committee and the Parliamentary Standing Committee on Power, Energy and Mineral Resources.

## Accountability Chain



# A Brief History of Oil, Gas and Mineral Industry in Bangladesh

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## The beginning : up to 1947

The search for oil and gas in the area constituting Bangladesh began in the later part of the 19th century through some isolated geological mapping. The first serious attempt to find oil and gas was undertaken in Sitakund in 1908 by the Indian Petroleum Prospecting Company, 18 years after the first oil discovery in Digboi, Assam. During 1923-31 Burmah Oil Company (BOC) drilled 2 shallow wells in Patharia. The wells were abandoned though there was a reported show of oil. A total of 6 exploratory wells were drilled, the deepest being 1047 meters. There was, however, no discovery and the Second World War disrupted further activities.

## The interim : 1948 to 1971

The promulgation of the Petroleum Act in 1948 generated a lot of interest in oil and gas exploration by international oil companies. The Standard Vacuum Oil Company (STANVAC) of the USA, Pakistan Petroleum Ltd. (PPL), Burmah Oil Company affiliate and Pakistan Shell Oil Company (PSOC) carried out exploration till the end of the sixties. STANVAC drilled 3 wells at Hazipur, Bogura and Kuchma in the north-western part of the country without success. PPL drilled wells in Haripur, Patharia, Chatak, Fenchuganj, Patiya and Lalmai made the first gas discovery in Haripur in 1955, followed by Chattak in 1959. PSOC was the most successful company and discovered 5 gas fields named Titas, Habiganj, Rashidpur, Kailashtila and Bakhrabad. They also drilled the first Offshore well, Cox's Bazar-1, which was dry.

Oil and Gas Development Corporation (OGDC) was established in 1961 providing an institutional foundation for the exploration of oil and gas in the country. OGDC carried out geological and geophysical surveys including gravity, magnetic and seismic types and drilled wells in Jaldi and Semutang, discovering gas in Semutang in 1970.

## The way forward : 1972 to 1979

After the independence of Bangladesh, exploration activities by both national and international companies gathered pace. Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) continued its exploration efforts while the Bangladesh Petroleum Act was passed in 1974 to facilitate international participation under the production sharing contract (PSC). The Offshore area of Bangladesh was divided into 6 blocks, which were taken up by Ashland, ARCO, BODC (Japex), Union Oil, Canadian Superior Oil and Ina Naftaplin under PSCs. These companies carried out gravity, magnetic and seismic surveys (about 32,000 km) and drilled 7 wells. Of them, only Union



Ownership Transfer Agreement for 5 Gas Fields from Shell Petroleum Company to Petrobangla

Oil Company discovered an Offshore gas field called Kutubdia in 1977. This phase of PSC ended in relinquishment of the blocks by the PSC operators in 1978. On 9 August, 1975, government purchased 5 gas fields, namely Titas, Habiganj, Rashidpur, Kailashtila and Bakhrabad from the British company, Shell Petroleum Company Limited, for a nominal amount of 4.5 million pounds sterling. This landmark decision laid the foundation of energy security of the country by introducing sole ownership of the state over these major gas fields.

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## Gathering Momentum : 1980 onwards

The 1980s saw accelerated exploration activities by Petrobangla. During this time, 12 exploration wells were drilled at Muladi, Begumganj, Singra, Beanibazar, Atgram, Feni, Fenchuganj, Sitakund, Bogura, Kamta, Marichakandi (Meghna) and Belabo (Narshindi); and 7 gas fields were discovered at Begumganj, Beanibazar, Feni, Fenchuganj, Kamta, Marichakandi (Meghna) and Belabo (Narshindi). Among these, Fenchuganj no. 2 well remain the deepest one drilled so far in Bangladesh (4,977 m). Meanwhile, a new milestone was achieved when Petrobangla discovered the first commercial oil pool in Sylhet no. 7 on 23 December, 1986. Since 1989, after the formation of BAPEX as the national exploration company and thereafter exploration and production company, the company has continued exploration and production activities and drilled 4 exploratory wells discovering gas at Shahbazpur, Saldanadi, Srikail and Sundalpur.

In 1981, Shell Oil Company (Shell) was awarded the Chattogram Hill Tracts for petroleum exploration under PSC. Shell conducted geological and seismic surveys and drilled the Sitapahar well which was found dry. Subsequently Shell undertook exploration in the extreme north west of the country and drilled the first well in the area, the Salbahanhat, Tetulia well which was also dry. In 1988 Scimitar Exploration Limited was awarded another PSC of what is now block no. 13 in the Surma basin. They failed to prove the extent of the oil discovery at Sylhet structure but discovered the Jalalabad gas field.

Formulation of the National Energy Policy, 1996 and adoption of a model production sharing contract (PSC) document together with redefining the whole of Bangladesh territory into 23 exploration blocks ushered a new phase of exploration and development of oil and gas in the country. In the first stage under the new arrangement, 8 blocks were awarded to 4 companies under PSC. Exploration and development activities in these blocks were rather limited and most of the blocks were moderately covered by seismic surveys. A total of 11 exploration wells were drilled and 3 gas fields were discovered in these blocks. These fields are Moulvibazar, Sangu (Offshore) and Bibiyana. These 3 fields along with the Jalalabad gas fields discovered by Scimitar Exploration Ltd. were developed under PSC and are currently in production. The first 3D seismic survey of the country took place in Bibiyana during its appraisal. Bibiyana came under production since March, 2007. Another PSC bidding round during the late nineties culminated in awarding 4 more blocks. These were SHELL/CAIRN/ BAPEX in blocks no. 5 and 10, UNOCAL/BAPEX in block no. 7 and TULLOW/CHEVRON/TEXACO/BAPEX in block no. 9. Exploration activity was conducted in these blocks. Substantial activities were undertaken in block no. 9 where 6 exploration cum appraisal wells were drilled on the basis of a seismic survey, including 3D seismic to discover the Bangura gas field.

The Offshore Bidding Round 2008 being limited to newly-formed deep water blocks, attracted a significant number of bids. However, the ensuing maritime boundary dispute in most of the blocks created a stalemate. In this backdrop, a PSC for 2 blocks was signed with ConocoPhillips in 2011. During the FY 2012-13, ConocoPhillips completed the acquisition of 5,860 lkm of 2D seismic survey and interpretation of data identified 4 leads. Among them, one of the leads has an estimated in place gas resource of 2.8 TCF (P50). Despite having good potential for the block, the then fiscal terms and conditions were not in favor of the ConocoPhillips' portfolio for further investment. As a result, ConocoPhillips relinquished these blocks in 2014 without drilling any exploratory wells.

After the resolution of the maritime boundary dispute with Myanmar by virtue of the judgment awarded on 14 March, 2012 by the International Tribunal for The Law of The Sea (ITLOS), the deep water blocks on the eastern part were rearranged. This is a widely acclaimed achievement of the government. The Bangladesh Offshore Bid Round 2012 was announced in December, 2012 and substantial initial response was received. Under this bid round, 2 shallow water PSCs were signed with the consortium of ONGC Videsh Limited (OVL), Oil India Limited (OIL) and BAPEX for blocks SS-04 and SS-09 and 1 shallow water PSC was signed with the consortium of Santos, KrisEnergy and BAPEX for block SS-11. A PSC has been signed for deep sea block DS-12 with POSCO DAEWOO Corporation (currently POSCO INTERNATIONAL Corporation) in March, 2017.

As per the PSC for blocks SS-04 and SS-09, OVL acquired and interpreted 5,080 lkm of 2D seismic data and identified 3 locations for the drilling of 3 exploratory wells. In Block SS-11, Santos acquired and interpreted 3,146 lkm 2D seismic data and identified 7 leads. Santos carried out a 305 km 3D seismic survey over one of the potential leads. Despite a promising post 3D data interpretation outcome, Santos's decision of wrapping up overall activities in the Asia region led them relinquish the entire block SS-11. Accordingly, the PSC has been terminated. In Block DS-12, POSCO acquired and interpreted 3,580 lkm of 2D seismic data identified 5 leads. However, POSCO relinquished the block considering the fiscal terms of the signed PSC not favorable for their further investment.

On the other hand, all of the onshore PSCs have matured from the exploration phase to the production phase and major areas of the blocks have been relinquished. As of December, 2022 PSCs are active in production areas of blocks 12, 13 and 14 with Bibiyana, Jalalabad and Moulvibazar gas fields operated by Chevron, and block 9 with the Bangura Gas Field operated by Tullow Bangladesh Limited.

Even though the exploration history of oil and gas in Bangladesh goes back almost a century, exploration density could not be enhanced as much as it is required to convert domestic oil and gas resources into proven reserves. However, the exploration success ratio is high, at about 1 in 3 wells. PSC was the major contributor in the country's gas production throughout the year of 2022. As of June, 2023 out of 29 gas fields discovered, 20 were under production. Meanwhile, peak gas production per day crossed the level of 2,700 MMscfd in December, 2016. Despite an increase in production, the rising demand could not be met and the gap between supply and demand is widening. To minimize the gap, LNG has been imported since August, 2018 and massive exploration programmes in both onshore and Offshore areas are being implemented.

## **Minerals**

Petrobangla is also entrusted with mineral development in the country. While the exploration part of mineral activity falls under the charter of the Geological Survey of Bangladesh (GSB), subsequent development of economic deposits is undertaken by Petrobangla. Mineral activities were part of the erstwhile Bangladesh Mineral Exploration and Development Corporation (BMEDC) until its merger with BOGC. Petrobangla has developed 2 underground mines, one for coal at Barapukuria which started commercial production in September, 2005 and the other for granite at Maddhapara which went into commercial production in May, 2007. Certain other extraction operations, like limestone, white clay and bouldering, are controlled by the Government through the Bureau of Mineral Development (BMD).

# Activities of Petrobangla

After the first discovery of commercial gas in Haripur, Sylhet in 1955, a total of 29 gas fields have been discovered so far with 2P recoverable reserve of 28.79 TCF. At present, 20 gas fields are producing through 107 wells on an average 2150 MMcfd of gas. A total of 20.33 TCF of gas has been produced since inception to June, 2023 and remaining reserve as of July, 2023 is 8.46 TCF. Due to long production period, most of the gas fields are in depleting nature with decreasing reservoir and wellhead pressure and experiencing water and sand production.

First commercial gas supply started with supplying gas to Shiddhirganj power station and Chhatak cement factory during 1962/63 with very low demand. Gas demand started increasing during 1980s. Due to multi-dimensional industrialization, power door to door campaign and other development activities, gas demand has been reached to many folds and domestic supply of gas is not capable to meet up total gas demand of the country. As a result, government has already started importing higher cost Re-gasified LNG (RLNG) from 2019 and creating pressure to the national exchequer. During this situation, exploration and exploitation of domestic reserves and resource is the top priority to increase domestic production. Otherwise, additional RLNG import will create extra pressure to the national economy. Belows are the overall scenario of gas production, supply and several gas augmentation programmes currently conducted by Petrobangla:

## 1) Sources of Gas Supply

At present, Petrobangla is supplying gas from six sources, which include three national production companies, two International Oil Companies (IOCs), and imported LNG as follows (June, 2023):

Unit: MMcfd

National Exploration and Production Company (NOC)				International Oil Company (IOC)			Total production	Imported LNG	Total Supply
BGFCL	SGFL	BAPEX	Total	Chevron	Tullow	Total			
586	92	110	788	1315	47	1362	2150	970	3120



Bianibazar workover Project done by BAPEX

## 2) Action taken to increase Gas production:

Petrobangla is committed to keeping the energy sector balanced by adjusting the gas supply to meet the country's increasing energy demands. To achieve this, Petrobangla is preparing a gas demand-supply projection until 2040-41 and initiated several well-planned and time bound programmes to increase gas supply as follows:

### i) Demand-Supply Projection:

- A Demand-Supply Projection till 2040-41 has been prepared by an in-house committee consisting of members from Petrobangla and its Companies:

Unit: MMcfd

Fiscal Year	Gas Demand			Daily Total Supply	Demand-Supply Gap (‘-’ sign indicates surplus)		
	Scenario-1	Scenario-2	Scenario-3		w.r.t Scenario-1	w.r.t Scenario-2	w.r.t Scenario-3
1	2	3	4	5	6=2-5	7=3-5	8=4-5
2022-23	4051	3677	2889	3034	1017	643	-145
2023-24	4734	3883	2788	3029	1705	854	-241
2024-25	4956	3965	2498	3407	1549	558	-909
2025-26	5429	4176	2468	4139	1290	37	-1671
2026-27	5769	4534	2593	4423	1346	111	-1830
2027-28	6020	4761	2717	4631	1389	130	-1914
2028-29	6486	4948	2899	4540	1946	408	-1641
2029-30	6655	5092	3091	4352	2303	740	-1261
2030-31	6916	5250	3288	4608	2308	642	-1320
2031-32	7007	5426	3380	5440	1567	-14	-2060
2032-33	7091	5651	3594	5694	1397	-43	-2100
2033-34	7165	5890	3684	5596	1569	294	-1912
2034-35	7399	6072	3785	5673	1726	399	-1888
2035-36	7453	6245	3910	5640	1813	605	-1730
2036-37	7552	6391	4164	5591	1961	800	-1427
2037-38	7638	6471	4345	5507	2131	964	-1162
2038-39	7677	6576	4641	5397	2280	1179	-756
2039-40	7724	6800	4977	5333	2391	1467	-356
2040-41	7758	6986	4890	5249	2509	1737	-359
Avg. Growth (%pa)	3.48	3.44	5.23	2.89	1.98	11.79	-11.03

## Assumptions

### Demand

- Three Scenarios for Gas Demand were observed. In scenario 1, gas demand projections have been derived from the data provided by the gas distribution companies under Petrobangla. Scenario 2 was prepared considering demand for power sector provided by the Bangladesh Power Development Board (BPDB) through Power Division (PD), keeping gas demand for all other sectors the same as in scenario-1. In scenario 3, the gas demand projection case PP2041 made in Integrated Energy and Power Master Plan (IEPMP) produced by JICA study team has been considered.

- Individual sectoral gas demand projection from 6 distribution companies (TGTDPLC, BGDCL, JGTDSL, KGDC, PGCL and SGCL) up to the FY 2040-41 have been collected and reviewed considering Load factor (different for different sector), diversity factor and Age of retirement of power plants as per GSA (Gas Supply Agreement) and fertilizer factories.
- Considering all the factors, Scenerio 2 is observed to best acceptance as customer demand and is now using as a basis for demand in the Demand-Supply Projection.

## Supply

### Indigenous Sources

- The supply projection was prepared taking into account the ongoing and forthcoming/future programmes for workover, appraisal-cum-development and exploratory wells drilling of BGFCL, SGFL, BAPEX and IOCs from fiscal year 2022-23 to 2040-41.
- After successful completion of Deep Drilling Program, new exploration window will be opened and the expected gain scenario will be changed.

### RLNG

- For calculating RLNG supply quantity existing 2 FSRUs regasification capacity and upcoming 3rd FSRU (425+ 425 MMcfd), Land based LNG Terminal Capacity (1000 MMcfd) and Cross Border RLNG imports (300 MMscfd) are considered.
- In case of change in planning for the above mentioned installation RLNG supply quantity may vary.

## ii) Gas Exploration from Indigenous Sources

### 50 wells drilling Programme

- Drilling of 23 wells using BAPEX rigs and 27 wells through outsourcing.
- Total number of wells drilled so far is 7 (5 exploration/development wells and 2 workovers) out of which 4 (Srikail North-1A, Shariatpur-1, Beanibazar-1 and Titas-24) are by BAPEX and 3 (Tabgi, Bhola North-2, and Illisha-1) are by outsourcing.
- Illisha is declared as Country's 29th gas field by ensuring commercial production of about 20 MMcfd of gas.
- 79 MMcfd of gas has been ensured at the end of drilling 7 wells and 19 MMcfd of gas connected to the national grid.
- After successful completion of drilling of 50 wells, it is expected to ensure the availability of an estimated 648 million cubic feet of gas per day.

## iii) Strengthen of BAPEX

- As part of conducting regular oil and gas exploration and drilling activities in areas allotted by the Government, BAPEX has been carrying out collection and evaluation of geological and geophysical data, basin review, geochemical analysis, drilling and workover, oil field services, well development, gas production and supply and other ancillary activities.
- Petrobangla is working along with BAPEX to engage of its 5 Drilling Rigs in operation at the same time in five locations by 2023-2024 with its utmost effort.
- It is planned to drill 70-80% of the drillable wells and workover activities in the future using BAPEX's rigs.

## Transmission

Transportation of high pressure gas in the country is the responsibility of Gas Transmission Company Limited (GTCL). GTCL owns and operates major gas transmission pipelines throughout the country. Gas transmission pipelines built by other companies before the creation of GTCL have been integrated with the GTCL system. Currently GTCL operates the following gas transmission pipelines:

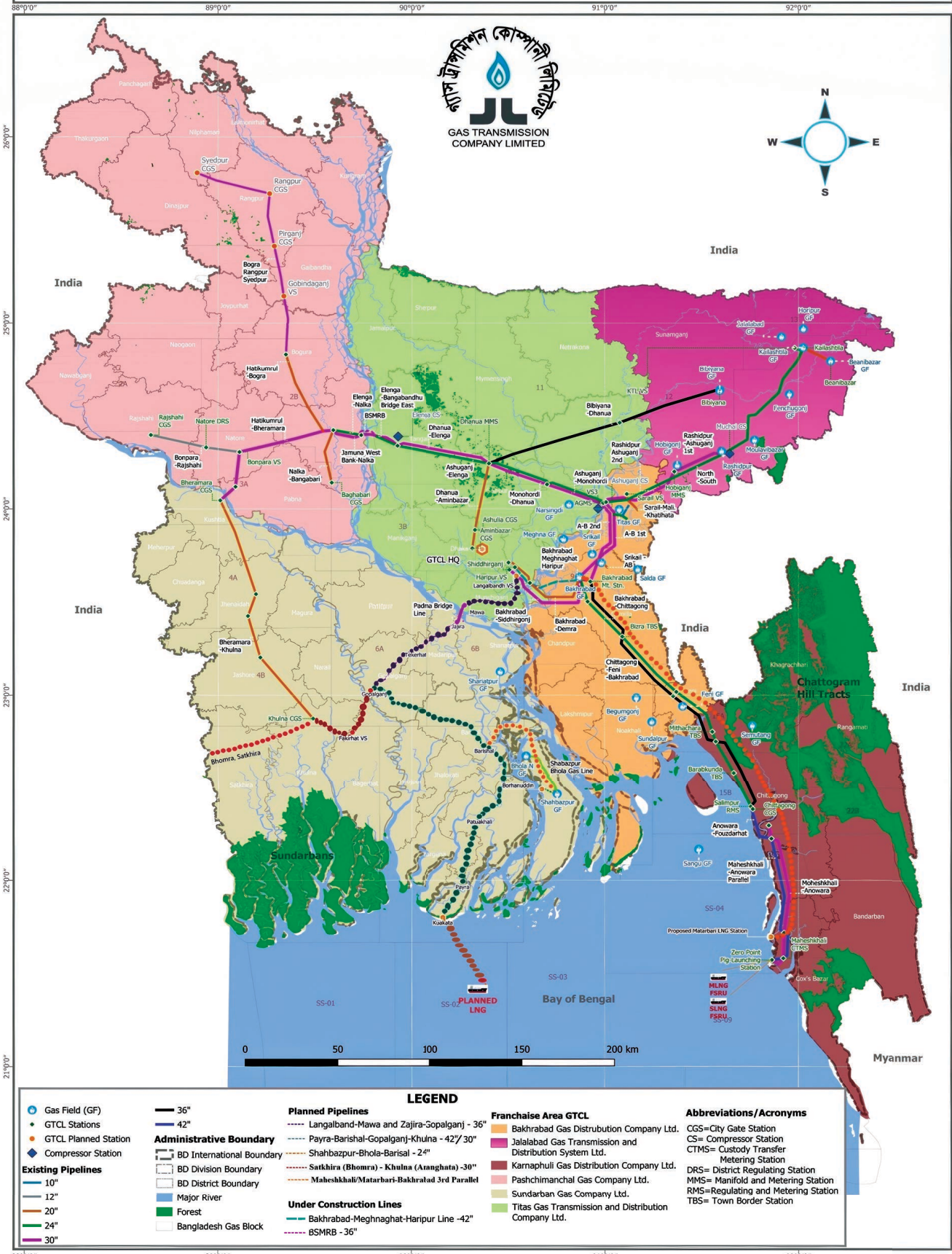
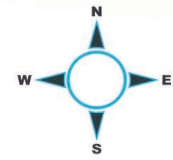
(1) Bakhrabad-Demra 20" x 68.72 km gas transmission pipeline; (2) Bakhrabad-Chattogram 24" x 174.65 km gas transmission pipeline; (3) North-South 24" x 175 km gas transmission pipeline; (4) Ashuganj-Bakhrabad (AB) 30" x 58.50 km gas transmission pipeline (1st phase); (5) Paschimanchal gas transmission projects - (a) 30" x 9 km Bangabandhu (B-B) Bridge, (b) 24" x 28.50 km Elenga-Nalka and (c) 20" x 35.5 km Nalka-Baghabari gas transmission pipeline; (6) Beanibazar-Kailashtila 20" x 18 km gas transmission pipeline; (7) Rashidpur- Habiganj 30" x 28 km gas transmission pipeline (2nd Phase); (8) Habiganj-Ashuganj 30" x 54 km gas transmission pipeline (1st Phase); (9) Ashuganj-Elenga 24" x 124 km gas transmission pipeline; (10) Ashuganj-VS3 20" x 2.00 km gas transmission pipeline; (11) Nalka-Bogura gas transmission pipeline - (a) 30" x 6 km Nalka-Hatikumrul and (b) 20" x 54 km Hatikumrul-Bogura gas transmission pipeline; (12) Ashuganj-Monohordi 30" x 37 km gas transmission pipeline; (13) Dhaka Clean Fuel 20" x 60 km gas transmission pipeline; (14) Monohordi-Dhanua and Elenga-Bangabandhu Bridge East 30" x 51 km gas transmission pipeline; (15) Titas Gas Field (Location-G)- AB pipeline 24" x 8 km gas transmission pipeline; (16) Srikail Gas Field (Location-2)-AB pipeline 20" x 1.5 km gas transmission pipeline; (17) Bonpara-Rajshahi 12" x 53 km gas transmission pipeline; (18) Bibiyana-Dhanua 36" x 137 km gas transmission pipeline; (19) Titas Gas Field (Location- C, B and A) to Titas A-B 10" x 7.7 km gas transmission pipeline; (20) Bheramara-Khulna 20" x 163.03 km gas transmission pipeline; (21) Hatikumrul-Bheramara 30" x 84 km gas transmission pipeline; (22) Titas Gas Field Well No. 23, 24 (Sorail) to Khatiahata and Well No. 25, 26 (Malihata) to Khatiahata 20" x 3.30 km gas transmission pipeline; (23) Gas transmission capacity expansion - Ashuganj-Bakhrabad 30" x 61 km gas transmission pipeline; (24) Moheshkhali-Anowara 30" x 91 km gas transmission pipeline; (25) Bakhrabad-Siddhirgonj 30" x 60 km gas transmission pipeline; (26) Anowara-Fouzdarhat 42" x 30 km gas transmission pipeline; (27) Dhanua-Elenga and Bangabandhu Shetu West Bank-Nalka 30" x 67 km gas transmission pipeline; (28) Moheshkhali (Zero Point)-Moheshkhali CTMS 42" x 7 km gas transmission pipeline; (29) Moheshkhali CTMS-Anowara 42" x 79 km parallel gas transmission pipeline and (30) Chattogram-Feni-Bakhrabad 36" x 181 km gas transmission pipeline.

GTCL has also completed the installation of compressor stations at Ashuganj and Elenga and expansion of existing supervisory control and data acquisition (SCADA) system of national gas grid under GTCL (Component B of Bheramara Combined Cycle Power Plant Development Project).

### Running projects are:

- (i) 30" X 150 km Bogura-Rangpur-Syedpur Gas Transmission Pipeline Project;
- (ii) 42" X 50 km Bakhrabad-Meghnaghat-Haripur Gas Transmission Pipeline Project;
- (iii) Installation and Modification of Gas Station at Off-Transmission Points of GTCL;
- (iv) 36" X 10 km Gas Transmission Pipeline on Bangabandhu Sheikh Mujib Railway Bridge; and
- (v) 20" X 60 km Dhanua to Mymensingh Gas Pipeline Construction (Depository Work basis).

# GTCL SCHEMATIC GAS TRANSMISSION PIPELINE NETWORK MAP



LEGEND	
<ul style="list-style-type: none"> <li>Gas Field (GF)</li> <li>GTCL Stations</li> <li>GTCL Planned Station</li> <li>Compressor Station</li> </ul>	<ul style="list-style-type: none"> <li>36"</li> <li>42"</li> </ul>
<b>Administrative Boundary</b> <ul style="list-style-type: none"> <li>BD International Boundary</li> <li>BD Division Boundary</li> <li>BD District Boundary</li> <li>Major River</li> <li>Forest</li> <li>Bangladesh Gas Block</li> </ul>	<b>Planned Pipelines</b> <ul style="list-style-type: none"> <li>Langalband-Mawa and Zajira-Sopalganj - 36"</li> <li>Payra-Barishal-Gopalganj-Khulna - 42"/30"</li> <li>Shahbazpur-Bhola-Barisal - 24"</li> <li>Satkhira (Bhokra) - Khulna (Atanghata) - 30"</li> <li>Maheshkhali/Matarbari-Bakhrabad 3rd Parallel</li> </ul>
<b>Existing Pipelines</b> <ul style="list-style-type: none"> <li>10"</li> <li>12"</li> <li>20"</li> <li>24"</li> <li>30"</li> </ul>	<b>Under Construction Lines</b> <ul style="list-style-type: none"> <li>Bakhrabad-Meghnaghat-Haripur Line - 42"</li> <li>BSMRB - 36"</li> </ul>
<b>Franchise Area GTCL</b> <ul style="list-style-type: none"> <li>Bakhrabad Gas Distribution Company Ltd.</li> <li>Jalalabad Gas Transmission and Distribution System Ltd.</li> <li>Karnaphuli Gas Distribution Company Ltd.</li> <li>Pashchimanchal Gas Company Ltd.</li> <li>Sundarban Gas Company Ltd.</li> <li>Titag Gas Transmission and Distribution Company Ltd.</li> </ul>	<b>Abbreviations/Acronyms</b> <ul style="list-style-type: none"> <li>CGS=City Gate Station</li> <li>CS= Compressor Station</li> <li>CTMS= Custody Transfer Metering Station</li> <li>DRS= District Regulating Station</li> <li>MMS= Manifold and Metering Station</li> <li>RMS=Regulating and Metering Station</li> <li>TBS= Town Border Station</li> </ul>



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## Pipelines

The gas pipeline network continued to expand both in transmission and distribution. In total about 88.91 km of pipelines of various sizes and grades were completed during the FY 2022-23; these included 16.58 km of transmission pipelines, 714 km distribution lines, 35.17 km feeder main and service lines and 30.02 km of other (customer financed) pipelines. As of June, 2023 the gas pipeline network encompassed about 28,247.29 km comprising about 3,359.02 km of transmission lines, 2,416.10 km distribution lines, 216.89 km lateral lines, 20,297.01 km feeder main and service lines and the rest 1,958.27 km of other (customer financed) lines. Gas transmission pipeline network of GTCL continued to expand. As in June, 2023 the transmission pipeline network increased to about 2,017.60 km.

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## Distribution

Six marketing or distribution companies under Petrobangla are entrusted with the responsibility of marketing of natural gas to customers ranging from large power and fertilizer plants to small households. These companies are: (1) Titas Gas Transmission and Distribution Company Limited (TGTDC), (2) Bakhrabad Gas Distribution Company Limited (BGDCL), (3) Jalalabad Gas Transmission and Distribution System Limited (JGTDSL), (4) Pashchimanchal Gas Company Limited (PGCL), (5) Karnaphuli Gas Distribution Company Limited (KGDCL) and (6) Sundarban Gas Company Limited (SGCL). Each company has its own marketing franchise area, covered by a fairly extensive distribution network. Among these marketing companies, Sundarban Gas Company Limited is the youngest one, which has started its operation in Bhola.

The total gas sales of the aforesaid 6 marketing companies in operation during the FY 2022-23 was about 932.42 BCF, of which TGTDC, being the largest, shared about 55%, followed by BGDCL at 11%, KGDCL is 11%, JGTDSL is 15%, PGCL is 5% and SGCL is 3%. The gas sector catered to 4.321669 million customers under various categories as in June, 2023. Most of these customers are in the domestic category.

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## Condensate, NGL and LPG

Some of the gas fields located in the north-eastern part of Bangladesh contain high concentrations of liquid hydrocarbons or condensate. This condensate has been processed in refineries and turned into petrol, diesel and kerosene since the beginning. In FY 2022-23, a total of 27,32,827 barrels of condensate has been produced as gas byproducts from the gas fields operating under national gas production companies and production sharing contracts (PSCs). From this condensate, 2,801 barrels of condensate have been sold directly to Bangladesh Petroleum Corporation (BPC) and private companies. The rest of the condensate and the whole amount of NGL produced are processed in plants owned by companies operating under Petrobangla and in this way 1,891,094 barrels of petrol, 110,586 barrels of diesel, 141,217 barrels of kerosene and 988.55 metric tons of liquefied petroleum gas (LPG) have been produced in FY 2022-23. These products are sold to various companies operating under the Bangladesh Petroleum Corporation (BPC). In 2018, a fractionation plant of 4,000 barrel capacity was established in Rashidpur by SGFL to process the condensate produced. Moreover, in 2021 a catalytic reforming unit (CRU) with 3,000 barrels of capacity has been established by SGFL.

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## CNG

Rupantarita Prakritik Gas Company Limited (RPGCL), a company of Petrobangla, has been entrusted with the functions to manage, supervise and coordinate the use of compressed natural gas (CNG) in Bangladesh. The extensive use of CNG has been playing an important role in reducing our dependence

on imported liquid fuel for use in vehicles. As of June, 2023, 536 of the total 604 approved CNG refueling stations were operated across the country and on an average about 0.507 million vehicles were refueled with CNG from these stations every day. On average 3.48 BCF of CNG has been used in every month, which is about 4.5% of the total gas consumption in the country.

## LNG

Bangladesh government has planned to import LNG in line with the existing and increasing gas demand in the country. Under the supervision of Petrobangla, RPGCL is accomplishing all necessary functions regarding LNG infrastructure development, LNG imports, and RLNG supply to the national gas grid.

Terminal use agreements (TUAs) were signed with Excelerate Energy Bangladesh Limited (EEBL) and Summit LNG Terminal Co. (Pvt.) Ltd. to install 2 FSRUs at Moheshkhali, approximately 90 kilometers south of Chattogram, for supplying 500 MMscfd of LNG each. After the installation of the FSRU by EEBL, RLNG supply to the national gas grid commenced commercially on August 19, 2018. Total LNG imports through this terminal were 2.108 million tons, and the total RLNG supply to the national gas grid was 105,177 million cubic feet in FY 2022–23. After the installation of the 2nd FSRU by Summit, RLNG supply to the national grid commenced commercially on April 30, 2019. Total LNG imports through this terminal were 1.976 million tons, and the total RLNG supply to the national grid was 98,260 million cubic feet in FY 2022–23.

Aiming to install a 1000 MMscfd land-based terminal named “Land based LNG Terminal,” a request for proposal (RFP) has been issued to eight shortlisted bidders on 15 March, 2022, in order to select an appropriate terminal developer. The terminal is expected to be commissioned by 2030.

The proposal from Summit Oil and Shipping Co. Ltd. (SOSCL) to set up an FSRU at Moheshkhali has been approved in principle by the government. Negotiations with SOSCL are in progress to finalize the draft agreements (TUA and IA). The proposal from Excelerate Energy to set up an FSRU at the Payra deep sea area has been approved in principle by the government. Again, a proposal from Excelerate Energy to expand the existing FSRU (MLNG) to increase its regasification capacity has also been approved in principle by the government. Negotiations with Excelerate Energy are in progress.

To import LNG from Qatargas, a sale and purchase agreement (SPA) was signed on September 25, 2017 with Ras Laffan Liquefied Natural Gas Company Limited (3), a Qatar-based government agency, to supply of 1.8–2.5 MTPA of LNG for 15 years. A total volume of 2.406 million tons of LNG was imported from Qatar through 39 cargoes in FY 2022–23.

Another SPA was signed with Oman Trading International Ltd. (present name: OQT), an Oman-based government agency, on May 6, 2018 for supplying 1.0–1.5 MTPA of LNG for 10 years. A total volume of 0.925 million tons of LNG was imported from OQT through 15 cargoes in FY 2022–23.

In addition, master sale and purchase agreement (MSPA) was signed with 21 organizations (suppliers/traders) to purchase LNG from the spot market. The first cargo from the spot market was imported in September 25, 2020. A total volume of 0.753 million tons of LNG was imported from the spot market through 12 cargoes in FY 2022–23.

In order to reduce the gap between demand and supply of gas, the government has planned to increase LNG imports. Accordingly, a proposal from SOSCL to supply LNG on a long-term basis has been approved in principle by the government. On the other hand, negotiations with Emirates National Oil Company Limited (ENOC), Qatar Energy, Perintis Akal Sdn Bhd, Malaysia, and OQT negotiation for long term contracts are in progress. In addition, an LNG supply contract negotiation on a long-term basis with EEBL, along with the expansion of MLNG, is also in progress.

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## Mining

Petrobangla is also entrusted with developing mineral resources in the country. As the pioneer in subsurface mining in the country, Petrobangla has developed a coal mine at Barapukuria and a granite mine at Maddhapara of Dinajpur district. The commercial production started from the coal mine in 2005 and from the granite mine in 2007. Coal is mainly used for power generation at the mine mouth thermal power plant of BPDB and granite is used mostly as construction material. At present, several feasibility study projects have been undertaken to develop more mines in our country to extract valuable natural resources.

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## Coal

Energy is the main indicator of economic growth for a country and constitutes one of the vital infrastructural inputs in socio-economic development. At present natural gas is the main indigenous energy source of Bangladesh which accounts for 49.5% of the total electricity generation. Several studies reveal that domestic production of natural gas will be depleting soon in the near future. Taking into account the uncertainty of sustainable supply of primary energy it is imperative to diversify the primary energy sources in the country. Therefore, coal can be a major alternative energy source for the country.

Five coal fields have been discovered so far in the north-western part of Bangladesh. These are Khalaspir Coal Field in Rangpur, Barapukuria, Phulbari and Dighipara Coal Fields in Dinajpur and Jamalganj Coal Field in Joypurhat/Naogaon. The total estimated reserve of 5 coal fields is 7,823 million metric tons.

Out of these five coal fields, Petrobangla has developed the first and only coal mine of the country at Barapukuria. Commercial coal production started from September, 2005 with a capacity of 1 million metric ton per annum and currently the production rate is 2500-3000 metric tons per day. Till June, 2023, total 13.89 million metric tons of Coal has been produced since the commencement of commercial production. About 0.77 million metric tons of coal has been produced in the year 2023 from Barapukuria mine. Presently entire amount of produced coal are being supplied to Barapukuria 525 MW coal fired thermal power plant. A contract has been signed between BCMCL and XMC-CMC consortium in 30 December, 2021 to extract 4.50 million metric tons of coal within a period of next 6 years.

According to Revisiting Power System Master Plan (PSMP) 2016, the demand of Coal by 2030 would be 58 million metric tons/year approximately. In September, 2018 a feasibility study project has been completed for North-South extension of the existing Barapukuria mine to increase the current production. On the basis of the study suggested that about 3.2 million metric tons of coal from northern part and about 6.9 million metric tons of coal from southern part can be extracted. Under the present contract with XMC-CMC consortium, underground roadway construction is going on for extraction of coal production from northern extension of the basin and expected to launch production from 2026.

A detail feasibility study for Open Pit coal mining in the northern and southern part of Barapukuria coal basin a project proposal (PFS) titled “Techno Economic Feasibility Study for Open Pit Coal Mine in Northern and Southern Part of Barapukuria Coal Basin, Parbatipur, Dinajpur, Bangladesh” has been sent to Energy and Mineral Resources Division (EMRD) on 19 July, 2022, for final approval. BCMCL board approved the project proposal (PFS) on its 347th board dated on 4 December, 2022. Then the project proposal (PFS) (with hard copies) were sent to Petrobangla on 17 January, 2023. Then Petrobangla sent hard copies on 29 January, 2023 to EMRD.

For development of Dighipara Coal field, Petrobangla conducted a 1st stage feasibility study which proves the prospect of this coal field and coal reserve has been estimated as 865 Million Metric Tons. In 2nd Stage, a project named “Feasibility Study for development of Dighipara Coal Field at Dighipara,

Dinajpur, Bangladesh” has completed to develop an underground coal mine at Dighipara with a target production of 3 million tons/year. From this study report it reveals that total geological reserve of Dighipara Coal basin is 706 million metric tons among which 90 million metric tons is extractable by underground mining. The Study Report has been reviewed by DMT consulting Ltd., UK. where DMT consulting Ltd. UK has made some observation on underground mine design, shaft construction, coal process plant, river diversion, water dam construction, transportation system etc. Finally DMT has opined economic viability of Dighipara underground mine development. According to the recommendations of the review report, a policy decision of the government has been sought regarding the construction of Dighipara coal mine.

During the year 2015-16, a feasibility study project for extraction of CBM (Coal Bed Methane) from Jamalganj coal field was carried out by Petrobangla. This study bring out that CBM production is not economically viable due to extreme gas under-saturation. The consulting firm of this project informed that 5.45 billion metric tons of coal resources are present over an area of 64 sq km in Jamalganj coal basin. The consulting firm recommended detailed coal exploration especially in the demarcated 15 sq km area where the upper coal seams occur in 600-800 m depth. Petrobangla has a plan to conduct further comprehensive feasibility study with a view to develop an underground mine in the north western comparatively shallower area of Jamalganj coal field. In continuation of this, considering the issue of high investment a pre-feasibility study project will be taken in north-western part of Jamalganj coal field through BCMCL.

To meet up the present and upcoming energy demand, it is required to increase the coal production by conducting feasibility studies on other coal fields, for example Khalaspir Coal Field and Phulbari Coal Field. Development of Coal Fields can be augmented by engaging foreign and local investors. However to get rid of the present and upcoming energy crisis the development/production of indigenous coal resources need to be expedited on a priority basis.

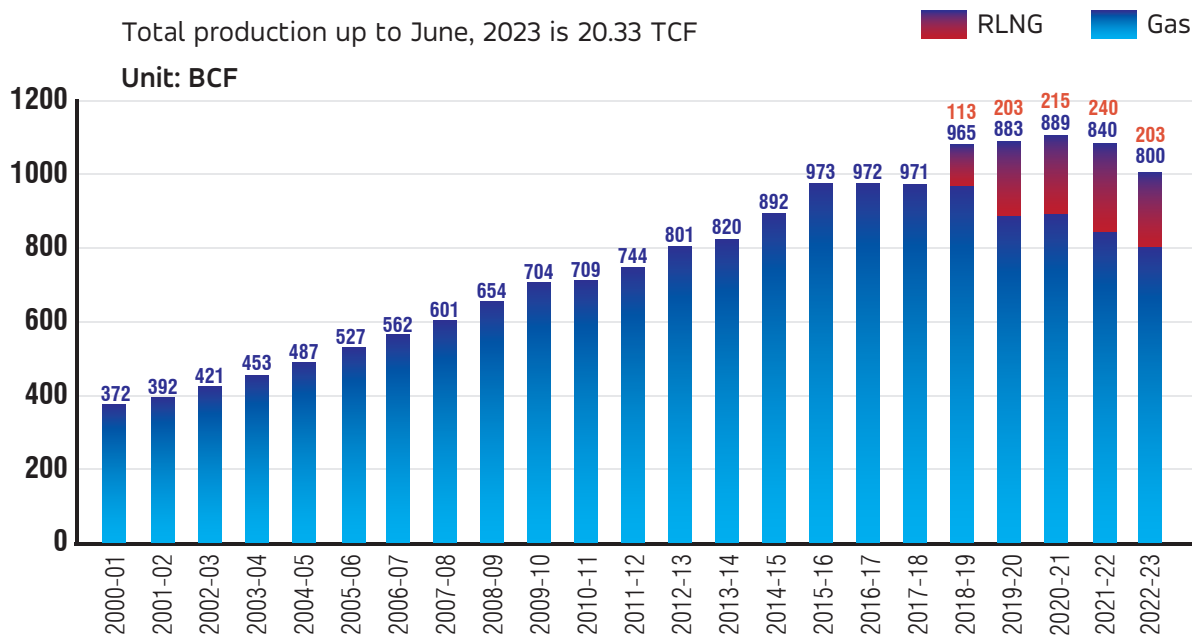
## Granite

Maddhapara Granite Mining Company Limited (MGML) in Dinajpur stands as the sole underground Granite Mining Company of its kind globally. The company extracts Granite predominantly used as construction material. As on 30th June, 2023, a total of 89,86,626.39 metric tons of granite was extracted from the mine and 83,74,608.19 metric tons was sold.



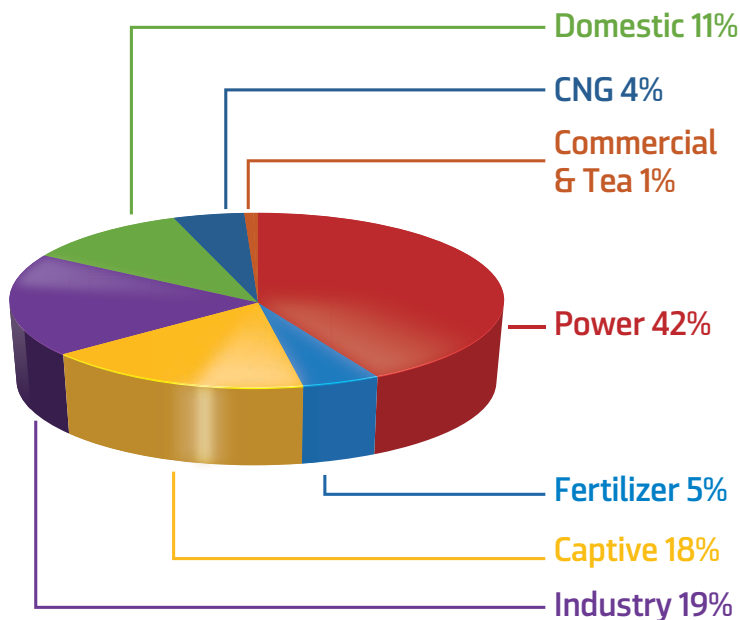
Underground Water Pump Station of MGML

# Gas Supply



## Marketing

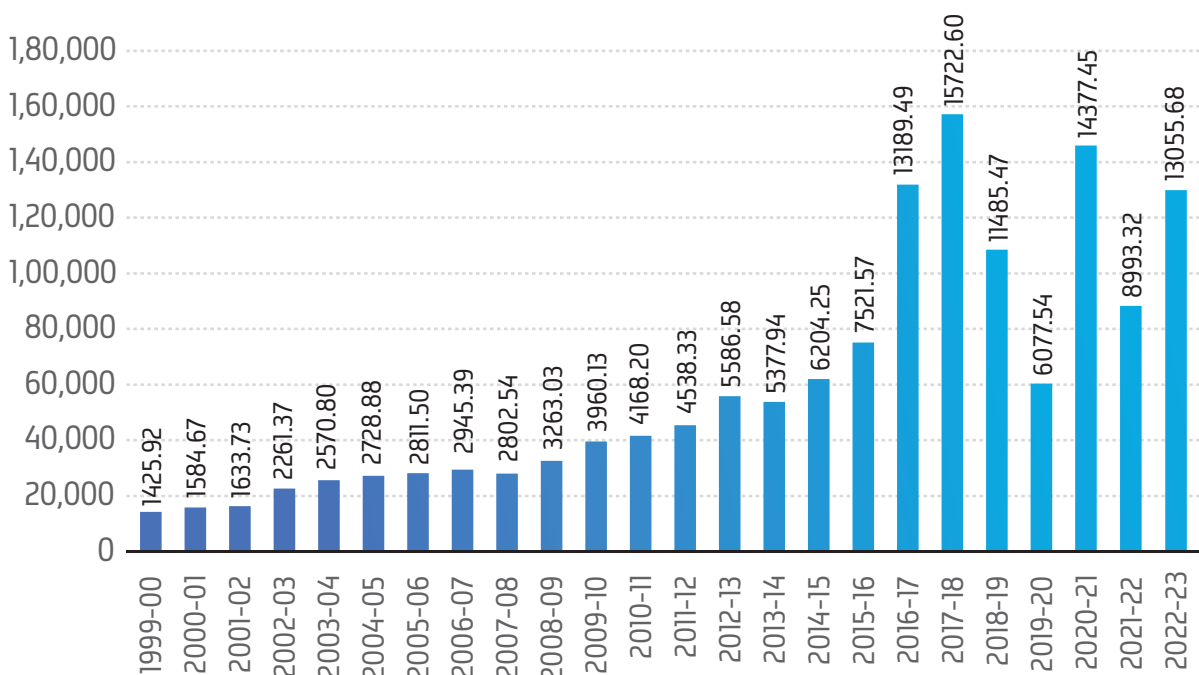
By the end of 2022-23 financial year, total sales was 932.4 BCF, of which power sector (Grid + Non-Grid) consumed the largest part amounting to 389.4 BCF followed by fertilizer sector 50.1 BCF, captive power 164.3 BCF, industry 178.8 BCF, domestic sector 100.6 BCF, and other non-bulk sectors 49.2 BCF. As of June, 2023 the gas sector catered to about 4.321669 million customers of various categories. Most of these customers fall under the domestic category; however, the power sector remained the largest customer.



Total Sales: 932.4 BCF

## Payment to National Exchequer

Taka in Crore



## Financial

In FY 2022-23, the Gross Sales was Tk. 90,072.39 crore and Cost of Sales was Tk. 94,138.67 crore by Petrobangla Group. Profit before tax was Tk. 3,171.14 crore after considering non-operating income, financial income and subsidy received from government. After paying income tax of Tk. 1,509.65 crore, profit after tax was Tk. 1,661.49 crore.

## Human Resources Development

As a part of the continuing efforts to upgrade its manpower resources to meet the changing needs of the industry, Petrobangla and its companies pursue skill development and diversification programmes on a regular basis. Apart from conventional training opportunities for job-specific subjects, new areas of specialization are being inducted to cater to a new milieu of activity. In view of gradual deregulation of certain aspects of the gas industry, introduction of private ventures as sole or joint collaboration, taxation regime, tariff mechanism and overall reinvigoration of the sector, regular and frequent participation are ensured by the widest possible selection of personnel in various training, workshops and seminars.

During the FY 2022-23, Petrobangla group arranged foreign programmes of different durations and disciplines for 25 participants were sent for attending training. During the same period, local programmes were imparted to 1041 personnel, while 1040 participated in training and 1 in workshop held in the country.

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## Information Technology

Bangladesh represents a major national goal, emphasizing the integration of information technology. To align with this vision and become a smart organization contributing to Smart Bangladesh, Petrobangla and its 13 companies are working accordingly. Petrobangla is following government policies and directives to achieve the objectives. Petrobangla has already integrated the government's D-Nothi system and e-Government Procurement (e-GP) systems to the activities. Most official meetings and training sessions are now being conducted through various video-conferencing platforms, allowing for direct, real-time communication that saves both time and effort. To ensure continuous internet access, redundant bandwidth with automatic failover has been implemented, and Wi-Fi connectivity is provided throughout the head office. Petrobangla keeps its website updated in both English and Bangla to keep everyone informed about its activities. Additionally, the organization operates own domain mail server to facilitate efficient and reliable digital communication. Petrobangla and its affiliates are also working to develop e-services aimed at delivering smoother, faster, and more effective services to stakeholders.

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## Production Sharing Contracts (PSC)

Under its charter, Petrobangla has the right to enter into petroleum agreements with any International Oil Company (IOC) for the purpose of petroleum operations. One of Petrobangla's major activities consists of organizing, supervising and administering the Production Sharing Contracts (PSC) it signs with the IOCs. Major block bidding and awards took place under the 1974 Offshore bidding round, 1993 bidding round, 1997 bidding round, 2008 Offshore bidding round and 2012 Offshore bidding round. Three deep Offshore blocks were offered in 2017.

### 1974 Offshore Bidding Round

Bidding was limited to near-Offshore areas and 6 Offshore blocks were contracted with the following IOCs:

Atlantic Richfield (ARCO);

Ashland Oil;

Union Oil;

Canadian Superior;

BODC (JNOC/JAPEX JV); and

Ina Naftaplin (Yugoslav oil company INA).

These companies conducted 31,069 km of marine seismic surveys, drilled 7 wells and discovered the Kutubdia Gas Field in 1977 and all winded up by 1978.

### PSCs in the 1980s

In the interim, 3 PSCs were concluded. Of these, 2 PSCs were concluded with Shell Oil Company for the Chattogram Hill Tracts (later Block 22) and North West Bangladesh (later block 23). Shell conducted seismic surveys, drilled 2 wells at Sitapahar and Salbahanhat without any success, and relinquished their concessions. One PSC was concluded with Scimitar Exploration of Canada for the exploration of oil in the Surma basin (the area later became Block 13). Scimitar only discovered gas in the Jalalabad field and relinquished the field.

## 1993 Bidding Round

At that time, 23 onshore and Offshore blocks were offered. Of these, 8 blocks were awarded to the following 4 IOCs:

Occidental (OXY) for blocks 12, 13 and 14 (Onshore): Later transferred to Chevron which produces from Bibiyana, Jalalabad and Moulvibazar fields.

Cairn Energy for blocks 15 (Onshore) and 16 (Offshore): Cairn discovered the Sangu gas field in 1996, which was produced until 2013. Blocks 15 and 16 were relinquished, except for the ring-fenced Offshore Magnama structure, which was transferred to Santos. After drilling two exploratory wells in Magnama without success, the ring fenced area was relinquished by Santos in 2017.

Oakland-Rexwood for blocks 17 and 18 (Offshore): Transferred to TOTAL, who relinquished both the blocks in 2010.

United Meridian Corporation (UMC) for block 22 (Onshore): Relinquished the block in 2004.

## 1997 Bidding Round

4 blocks were awarded as follows:

Tullow/Chevron/Texaco/BAPEX for block 9 (Onshore); Discovered Bangura Gas Field in 2004 which is now produced and operated by Tullow.

Shell/Cairn/BAPEX for blocks 5 and 10 (Onshore); relinquished in totality; and Unocal/BAPEX for Block 7 (Onshore); relinquished in totality.

During this bidding round, the provision for a mandatory 10% carried interest for BAPEX was introduced and implemented for all blocks.

## 2008 Bidding Round

It attracted some bids, but the ensuing maritime boundary dispute with Myanmar in most of the blocks created a stalemate. However, the Government succeeded in signing a PSC for 2 deep sea blocks on 16 June, 2011 with ConocoPhillips for DS-10 and DS-11. ConocoPhillips conducted a total of 5,750 lkm of 2D seismic survey in 2012 and 2013. After interpretation, ConocoPhillips identified a few prospects. However, ConocoPhillips relinquished the blocks considering their investment not feasible.

## 2012 Offshore Bidding Round

Following the delimitation of the maritime boundary between Bangladesh and Myanmar by ITLOS in March, 2012, Petrobangla reshaped the blocks considering the new boundary and announced a bidding round in December, 2012.

## Shallow Water Bids

Under this round, the following 3 shallow water PSCs were signed:

ONGC Videsh Ltd. (OVL), Oil India Ltd. (OIL) and BAPEX for blocks SS-04 and SS-09; and Santos, KrisEnergy and BAPEX for block SS-11.

## Exploration Activities

Exploration activities are ongoing in blocks SS-04 and SS-09. ONGC Videsh Ltd. (OVL) has completed 5,080 lkm of 2D seismic survey in these areas. OVL has committed to drilling three exploratory wells: two in block SS-04 and one in block SS-09. The first well, Kanchan-1, was drilled in September, 2021 but did not discover gas. 2 more exploratory wells are planned in blocks SS-04 and SS-09 during 2023-25.

In Block SS-11, Santos acquired 3,146 lkm of 2D seismic data and identified 7 leads. They also conducted 305 sq. km 3D seismic survey over one of the potential leads. Santos's decision to wrap up overall activities in the Asia region led them relinquishing the entire block SS-11.

### Deep Water Bids

Three proposals were received for blocks DS-12, 16 and 21 Jointly from ConocoPhillips and Statoil. However, no PSC was signed for any deep sea block under this bidding round.

Following the delimitation of the maritime boundary between Bangladesh and India by Permanent Court of Arbitration (PCA) in July, 2014, Petrobangla divided the whole undisputed Offshore area of Bangladesh into 26 blocks out of which 11 are shallow sea blocks and 15 are deep sea blocks. In 2017 three deep sea blocks namely DS-12, DS-16 and DS-21 were offered again to the IOCs. One PSC was signed for block DS-12 with POSCO-Daewoo.

In Block DS-12, POSCO acquired and interpreted 3,580 lkm of 2D seismic data and identified 5 leads. However, POSCO relinquished the block considering the fiscal terms of the signed PSC were not favorable for their further investment.

### Operating Fields under PSC during 2022-23

Currently, 4 gas fields are being operated by IOCs under the PSC. Of these 3 fields, namely Bibiyana, Jalalabad and Moulvibazar gas fields are being operated by Chevron and Bangura gas field by Tullow Bangladesh Limited.

**Bibiyana:** Bibiyana gas field is now the largest gas producer delivering around 1,150 MMscfd of gas to the national grid from total 26 producing wells. After installing the Turbo-Expander Unit, the condensate production is increased from 4,500 bbl/day to 6,500 bbl/day. To maintain the current production plateau and increase the maximum gas recovery from reservoir, a few work programmes and activities such as infill well, gas plant optimization and Flank development projects are being planned. Under the plant optimization programme, plant pressure will be decreased that results in a stable gas production from Bibiyana gas field. On the other hand, a Booster Compressor will be installed for increasing the gas pressure of standard delivery. One appraisal well will be drilled at Flank area of Bibiyana reservoir to meet up our national gas demand. Performed 5 numbers of new perforation and several wellhead integrity test along with well intervention activities at Bibiyana gas field for the incremental gas rate of 04-15 MMscfd.

**Jalalabad:** Currently, the Jalalabad gas field is producing around 160 MMscfd of gas and 790 bbl/day of condensate from 5 producing wells. Under the Production Sharing Contract (PSC) production period of this gas field was extended for an additional 10 years. To maintain the production plateau and increase the current production, a wellhead compressor project is being planned to be installed in 2025. Currently, perform 2 re-perforation activities at Jalalabad gas field for maintaining production plateau. Jalalabad-4 well workover is successfully completed as per plan and proposal but some additional difficulties it is suspended and shut in.

**Moulvibazar:** The Moulavibazar gas field is experiencing natural production decline and currently producing around 10 MMscfd. At present 4 wells are producing out of 9 wells. Recently, the Plug and Abandonment of well MB-05 is successfully completed for its huge water production. To increase gas production and deliverability from Moulavibazar gas field, it has been decided to supply the produced gas directly to the Jalalabad Gas Distribution system at a lower regulated pressure.

**Bangura:** The Bangura field started producing in 2006, peaking at 120 MMscfd in 2010 and thereafter declining to 80 MMscfd in November, 2018 from 5 wells. Later on, a successful well intervention programme held in November, 2018 augmented the field's production by 20 MMscfd. However, the

production of Bangura field started declining from early December, 2021 reaching at a current daily rate of around 45 MMscf.

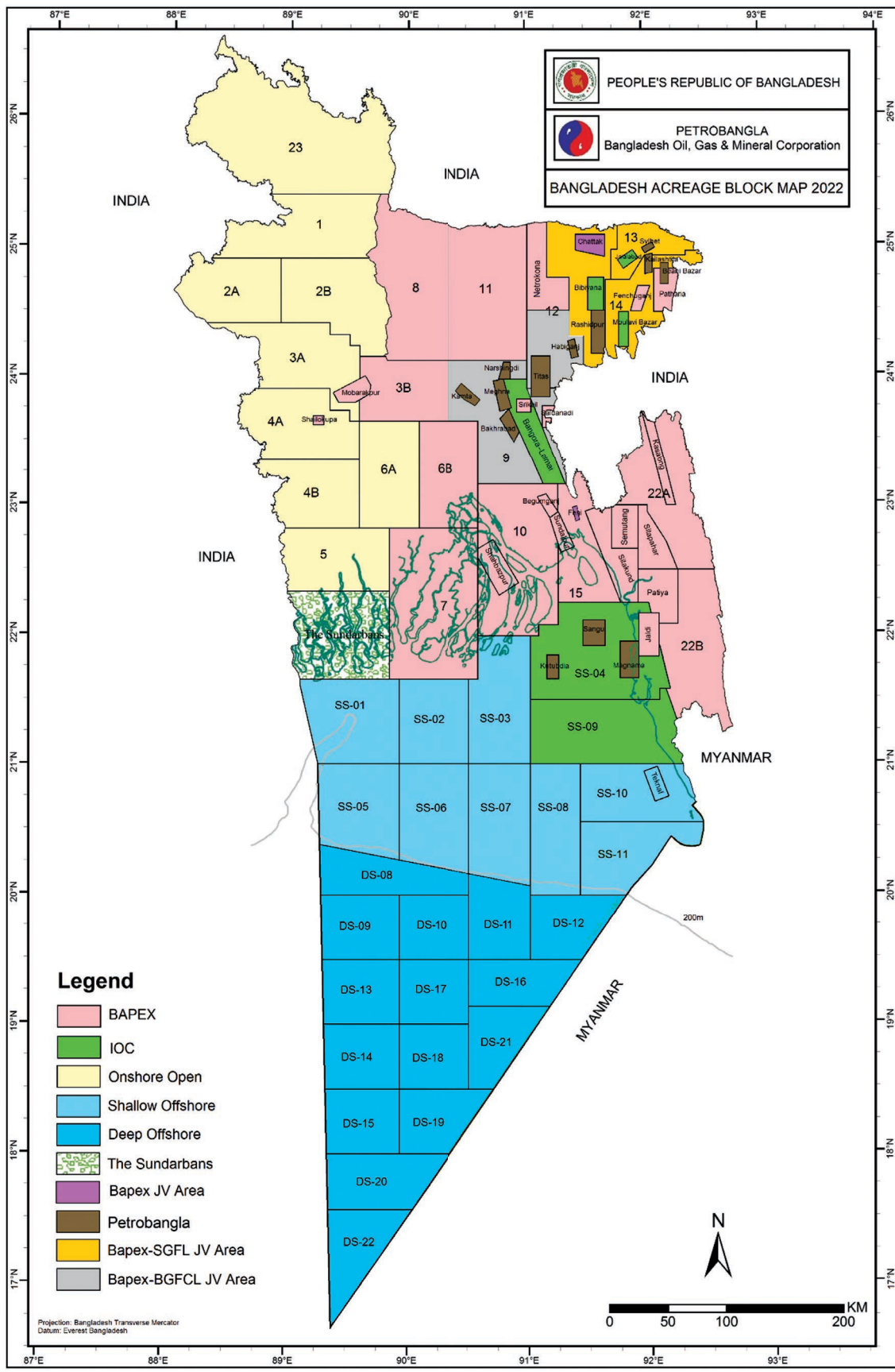
PSCs have resulted in addition of significant sources and supplies of gas in the country. The total gas production from the PSC operations during 2022-23 was 502.479 BCF. Since the beginning of PSC operations in Bangladesh in the 1970s, a total of 29 exploration wells have been drilled resulting in the discovery of 6 gas fields.

## **Blue Economy**

Delimitation of maritime boundary between Myanmar and India has opened the doors to immense possibilities for harnessing resources from the 26 blocks in deep and shallow seas, covering more than 118,813 square kilometers of area. Petrobangla is currently implementing three programmes related to Blue Economy on a fast track and short term basis.

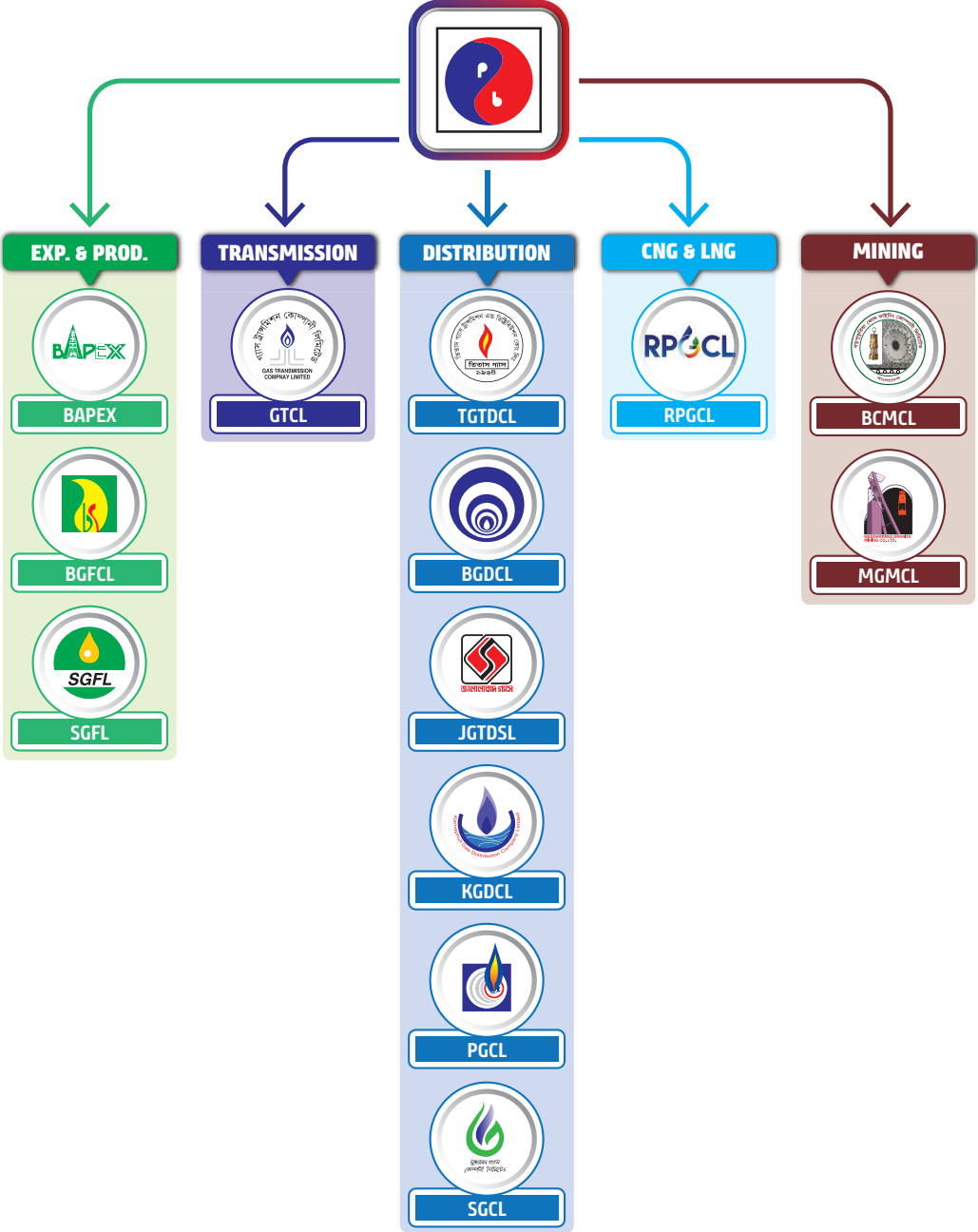
Under the fast track programme, an agreement to conduct a 2D non-exclusive multi-client seismic survey in the Offshore area of Bangladesh was signed between TGS-SCHLUMBERGER JV and Petrobangla in March, 2020. The objective of this survey is to provide the oil and gas industry with 2D non-exclusive multi-client seismic data of the Offshore areas in order to help with basin evaluation, prospect generation and robust bid round participation. Under this agreement a total of 32,000 lkm of 2D seismic survey will be conducted Offshore in a phased manner. The JV has acquired 12,642 LKM of 2D seismic data as part of the first phase of the Multi-Client survey on 8 April, 2023.

Under the short-term programme, previous “Model PSC 2012” was come apart into “Onshore Model PSC 2019” and “Offshore Model PSC 2019”. However, considering the global oil and gas market situation, Petrobangla took an initiative for further improvement attracting the fiscal terms of the Offshore Model PSC 2019 by engaging a reputed international consulting firm, Wood Mackenzie. Analyzing and reviewing the recommendations of the Consulting Firm, Petrobangla has prepared a draft “Bangladesh Offshore Model PSC 2023” which is now under Government’s final approval. A bidding round will be announced based on the revised Offshore Model PSC 2023 as soon as it is approved. Another short term programmes is the drilling of 2 exploratory wells in blocks SS-04 and 1 exploratory well in block SS-09. The drilling of one exploratory well named Kanchan-1 in block SS-04 has already been completed. The well was successfully drilled up to 4,228m but no hydrocarbon was discovered. As a result, the well has been plugged and abandoned. The contractor has obligation of drilling 2 more exploratory wells in the Offshore blocks SS-04 and SS-09 by February, 2025.



# Companies of Petrobangla

Over the years, the activities of Petrobangla have expanded and diversified to a great extent. To manage these activities, specialized companies are operating to achieve specific objectives. Currently, there are 13 companies operating under Petrobangla, dealing in oil and gas exploration, production, transmission, distribution, conversion and promotion of LNG as well as the development and marketing of coal and granite.





# Bangladesh Petroleum Exploration and Production Company Limited (BAPEX)

**Exploration:** During the 2022-23 field season, the Geological Survey Party conducted 95 line-kilometers of geological survey in the northern part of Matamuhuri structure and the southern part of Jaldi structure, spanning over Chakria and Pekua upazila of Cox's Bazar district, Lama upazila of Bandarban district, and Lohagara and Banskhali upazila of Chattogram district completing as many as 21 sections by the Geological Survey Party.

During this financial year, the Geological and Geophysical (G&G) report has been finalized and proposed several wells namely Sundalpur South-1, Jamalpur-1, Begumganj-6, Mobarakpur South-East-1 and appraisal cum development wells namely Sundalpur-4 and Begumganj-5. In addition, Sundalpur-4 appraisal cum development well and Sundalpur South-1 exploratory well surface locations have been identified. Along with that, the surface location report has been prepared for Rashidpur-13, Sylhet-11 and Dupitila-1 wells for SGFL authority.

Wireline logging activities conducted in open hole and cased hole sections of Srikail North-1A, Tabgi-1 and Shariatpur-1. Ilisha-1 exploration wells and Bhola North-2 appraisal cum development wells were monitored and log data were analyzed. Two DSTs have been completed, one in each of the Tabgi-1 and Bhola North-2 wells, ensuring the production of approximately 20 MMscfd. As a result of gas discovery in the Tabgi-1 well, the reserve of Shahbazpur gas field has increased significantly. DST in 3 zones of Ilisha-1 exploratory well has ensured commercial production of approximately 20 MMscfd. Ilisha-1 exploration well has been discovered as the 29th gas field of the country. Presence of gas is confirmed in one zone (G-SAND) of Srikail North-1 exploration well by analyzing the collected mudlogs and wireline logs but after conducting DST, it appears commercially non-viable. In addition, geological consultancy services have been provided for well site monitoring and analysis of wireline logging activities for SGFL's Beanibazar-1 and BGFCL's Titas-24 well workover activities.

Based on the prepared well proposals and geological data of existing wells a Geological Technical Order (GTO) has been formulated for BAPEX's Srikail Deep-1, Mubarakpur Deep-1, Srikail North-1A, Shariatpur-1 and Sundalpur-3 and SGFL's Kailashtila-8 and Sylhet-10. Besides, GTO has been prepared for BAPEX's Begumganj-4 (West) well and SGFL's upcoming Sylhet-11 development well and Rashidpur-13 exploratory well are ongoing. Online mudlogging service has been provided to Shariatpur-1 exploratory well using mudlogging unit purchased under finance from Shariatpur-1 Exploratory Well Drilling Project while mudlogging service has been given to Srikail North-1A exploratory well using refurbished Weatherford/EXLog mudlogging unit.

Also, Geological Survey Party has reported the findings of sedimentological (Grain Size and Depositional Environment), Micropaleontological and TOC analysis of outcrop samples collected from various sections of Jatinga structure during 2022-23 field season which has assisted in research and development purpose.

**Drilling:** Utilizing Gas Development Fund (GDF) and BAPEX's self-finance, the commercial gas discovery along with 20 MMcf gas production per day has been confirmed after the post-drilling DST, testing and ancillary activities performed at Tabgi-1 well on 26 October, 2022 by Gazprom, the EPC contractor for the project entitled "Drilling of 2 exploration wells (Tabgi-1 and Ilisha-1) and 1 appraisal cum development well (Bhola North-2)". The Tabgi-1 well has estimated reserve of about 239 BCF. On 23 January, 2023; After the successful completion of drilling followed by DST and ancillary testing in Bhola North-2 well, gas production at a rate of 21 MMcf has successfully been tested. Bhola North-2 well has estimated

reserve of around 189 BCF. After the successful drilling followed by DST and testing performed on 28 April, 2023 at the last well Ilisha-1, discovery of 3 gas zones including new gas layer was confirmed that can produce about 20 Mscfd. The estimated reserve of Ilisha-1 well is about 200 BCF. After analyzing the geological data, 'Ilisha' was officially announced as the 29th gas field of the country.

To ensure the implementation of the project entitled "Drilling of 1 exploratory well (Srikail North-1A) and 2 appraisal cum development wells (Sundalpur-3 and Begumganj-4 (West))" from 1 March, 2022 to 30 June, 2024, the Energy and Mineral Resources Division (EMRD) has approved a total cost of Tk. 28419 Lacs on 25 April, 2022. In the area of Sundalpur-3 well a total of 6.1425 acres of land has been taken over and 11 packages of construction work has been completed. Mobilization of Bijoy-10 rig and drilling equipment to the well area has been started. The land development work of the Begumganj-4 well area has been completed after occupying a total 5.5 acres land.

BAPEX has also undertaken a project entitled "Shariatpur-1 Exploration Well Drilling" and drilling work started on 5 November, 2022. Drilling team drilled up to 3,300 meters and completed on 6 March, 2023. As no gas was found, the well was 'plugged and abandoned'. The information obtained regarding the well drilling will be reviewed in the subsequent geological analysis of the area.

### Workover

**Titas-24:** As per the bi-lateral agreement inked between BAPEX and BGFL, the workover programme of Titas-24 well has been successfully completed by Bijoy-11 rig of BAPEX. At present, 8 MMcfd gas is being supplied from the well to the national gas grid line.

**Beanibazar-1:** Following a bi-lateral agreement signed between BAPEX and SGFL, the workover programme of Beanibazar-1 well has successfully been completed by Bijoy-11 rig of BAPEX. At present, 8 MMcfd of gas is being supplied from the well to the national gas grid line.

**Production:** 7 out of 11 gas fields of BAPEX produced a total amount of 48.28 BCF gas during the financial year of 2022-23.

### Projects of BAPEX

**2D Seismic Survey over exploration block-15 and 22:** A project of 3000 line kilometers 2D seismic survey undertaken for the purpose of drilling several exploratory wells in Comilla, Feni, Noakhali, Chattogram, Bandarban, Khagrachari, Rangamati and Cox's Bazar district of Chattogram division has been completed using self-funding of BAPEX and Gas Development Fund (GDF). The duration of the project extends from 1 July, 2021 to 30 June, 2024. In this year, data of 1106 line kilometers were collected in Feni, Noakhali and Chattogram districts at a cost of Tk. 70.75 crore. Data collection, processing and preliminary analysis activities of total 3000 km lines scheduled for the project have been completed. The physical and financial progress of the project is 100% in fiscal year 2022-23.

**3D Seismic Survey over Zakiganj and Patharia West Structure:** Under this project, a 3D seismic survey project has been undertaken at an estimated cost of Tk. 111.04 crore in a total area of 580 square kilometers of Zakiganj Gas Field in Sylhet district and Patharia West structure in Kulaura and Baralekha upazila of Moulvibazar district. The duration of the project is from 1 March, 2022 to 30 June, 2024. Under this project 3D seismic data of a total 200 square kilometer has been acquired around Zakiganj Gas Field and adjacent areas during the field season of 2022-23. Data processing is ongoing. The physical and financial progress of the project is 100%.

**2D Seismic Survey over exploration block-6B South and 10:** The DPP for this project with a view to acquiring 3220 line kilometers of 2D seismic data in different districts of Dhaka, Barisal and Chattogram divisions was approved. The sanction period of the project is from 1 July, 2022 to 30 June, 2025. In the fiscal year 2022-23, a total of 283 line kilometers 2D data acquisition has been conducted at a cost of

Tk. 700 crore through which 100% of the revised ADP has been achieved. The physical and financial progress of the project is 100%.

**Procurement and Installation of a 60 MMscfd capacity process plant for Shahbazpur Gas Field:** An agreement was signed with the EPC contracting company 5 Blue Process Equipment Inc. Canada' to set up a Glycol Dehydration type process plant with a capacity of 60 MMscfd with the finance of the Gas Development Fund (GDF) in order to increase the production of Shahbazpur gas field. The installation of the process plant imported under the contract from Canada has been completed. Besides, construction of 4 km long gas gathering pipe line from Shahbazpur East-1 well to the process plant, NDT and Hydrostatic Test at 5800 psi pressure have been successfully completed.

Gas processed through currently installed process plants is being supplied to various categories of consumers including the power plants located in Bhola district at the rate of 55-60 MMscfd. The project was completed on 31 December, 2022. The physical progress of the project is 100%.

**Procurement and Installation of a Wellhead Compressor for Srikail Gas Field:** The project was approved at an estimated cost of Tk. 19,240.00 lacs which has been financed by the Gas Development Fund (GDF) and BAPEX. The implementation period of the project is from 1 July, 2021 to 31 December, 2023. The contract was signed with STEINER GmbH, Germany, an international consulting firm on 9 September, 2021. The revised DPP has been sent to the Energy and Mineral Resources Division (EMRD) through Petrobangla on 1 October, 2023 for the purpose of approving the revised DPP in view of the financial clearance/Liquidity Certificate in favor of the project from the Monitoring Cell of the Finance Department. In the financial year 2022-23 there was an allocation of Tk 0.40 crore. The physical and financial progress of the project is 100%.

**Bijoy-10, 11, 12 and I DECO Rig Repair and I PS Rig Upgradation and Replacement of the Auxiliary Equipment:** The total estimated cost of this project is Tk. 19,952.00 lacs which is financed by BAPEX itself and the implementation period is from 1 July, 2021 to 31 December, 2023. Iron Roughneck, Top Drive Overhauling and Choke Manifold procurement were completed in FY 2022-23. Letter of Credit has been placed for IPS, Solid Control Equipment, Generator of Bijoy-11 Rig and Generator of IPS Rig. The consignment of IPS and Solid Control Equipment has been shipped. Accrued expenditure up to FY 2022-23 has been Tk. 4868.04 lacs which is 24.40% of total project expenditure and physical progress is 30%.



Shahbazpur Gas Field of BAPEX



# Bangladesh Gas Fields Company Limited (BGFCL)

BGFCL is the largest state-owned natural gas producing company. It is a Company of Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) under Energy and Mineral Resources Division. The company is originated from Shell Oil Company which was established in 1956. BGFCL is entrusted with the responsibility of producing natural gas and supplying those to the national grid.

BGFCL's emergence is related to a historic and visionary decision of the then government immediately after the independence of Bangladesh, Government made a milestone decision to bring country's gas resources under state ownership. Accordingly, government brought 5 gas fields-Titas, Habiganj, Bakhrabad, Rashidpur and Kailastila of the then Shell Oil Company under state ownership. Later on, the Shell Oil Company was renamed as 'Bangladesh Gas Fields Company Limited (BGFCL)' on 12 September, 1975. Out of those 5 gas fields, Titas, Habiganj and Bakhrabad along with 3 others totaling 6 gas fields are being operated by BGFCL.

BGFCL produces approximately 567 million cubic feet of gas daily, which is about 20% of country's total gas supply and about 70% of the production of state-owned companies. Besides, condensate, a by-product of gas is being delivered to private fractionation plants as per allotment of concerned authority.

Out of 6 gas fields of BGFCL, currently 5 fields except Kamta are in production. BGFCL owns 39 gas process plants of Glycol, Silicagel, LTX and LTS type. The processed gas is supplied to TGTDC, JGTDSL and GTCL through national transmission network. BGFCL is carrying out drilling of new wells, workover of existing wells, installation of gas compressors and process plants etc. with the financing of GDF, ADB, AIIB and GOB along with own finance according to the government work plan.

According to the study report-2010 of Gustavson Associates of USA engaged by Hydrocarbon Unit (HCU) of Energy and Mineral Resources Division (EMRD), the total gas reserves of 6 gas fields of the Company is 12,252,000 million cubic feet of which 9,247,365.919 million cubic feet of gas has been recovered till 31 December, 2023.

During the fiscal year 2022-23, under Company's development project, joint operation of 7 nos. wellhead compressor at

Titas Field Location-A is being continued from 04.04.2023 after installing, commissioning and testing. Besides, Installation of wellhead compressors at Titas Field Location-E and G is ongoing. The company



Workover of Titas-24 well by BGFCL

have forth future to drill 4 wells at Titas and Kamta Fields, 3-D Seismic Survey across 1459 sq.km. area at Habiganj, Bakhrabad and Meghna fields and drilling of 1 exploration well (deep well) at Titas field.

The main source of the Company's revenue income is the sale proceeds of natural gas and petroleum products. During the financial year 2022-23, the Company earned TK. 1,053.60 crore from the sales of 6174.35 million cubic meter of natural gas, TK. 101.90 crore from the sales of 230.39 lac liters of petroleum product. After deduction of total expenditure TK. 1154.61 crore (including VAT), the pre-tax loss of the Company stands on Tk. 101.01 crore in the financial year 2022-23. During the financial year 2022-23, the Company paid total amount of Tk. 935.32 crore to the National Board of Revenue.

Under Corporate Social Responsibility (CSR), the company has a total grant of Tk. 6.51 lac for Brahmanbaria District Administration to celebrate Victory Day, Independence Day and National Day and to arrange historical boat race. Besides, the Company also provided Tk. 58.35 lac to different educational, social welfare, religious and underprivileged organizations/institutions. Company's support as CSR for socio-economic development is brightening the image at local and national levels.

The Company observed all the National Days in a befitting manner. Besides, the Martyrs Day and International Mother Language Day, Independence and National Day, Victory Day, International Women's Day also have been observed. The above programmes instill patriotism among the officers and employees of the Company.

Environment and safety related regulations are being complied during operational and development activities of the Company. In project implementation, environmental clearance certificates are taken/renewed from Department of Environment. Proper safety measures are taken on imported explosives and radioactive materials for use in different projects. The report of Petrobangla's ESMS (Environment and Safety Management Systems) project are followed in the Company. Produced water from the wells is treated through ETP for environment-friendly disposal. Tree plantation and nursing are also being continued. The world is passing through a turbulent phase in the post-Covid-19 global economic scenario. In this context, BGFCL is doing its best to implement the action plan of the government to face the challenges.



7 nos. wellhead compressors at Titas-A of BGFCL



## Sylhet Gas Fields Limited (SGFL)

Sylhet Gas Fields Limited is one of the largest state-owned gas producing company in the country. It used to be operated under the name of Pakistan Petroleum Ltd. (PPL) during pre-independence days. After independence, the company ran its business operations in the name of “Bangladesh Petroleum Limited” until a company in the name and style of “Sylhet Gas Fields Limited” was formed, and incorporated under the Companies Act on 8 May, 1982 with a view to taking over from the Government of Bangladesh all gas fields, installations, production facilities, all other assets at the Sylhet and Chhatak fields or elsewhere in Bangladesh owned by Pakistan Petroleum Ltd. (PPL).

The company, under its umbrella, currently operates 4 gas fields namely Sylhet (Haripur), Kailashtila, Rashidpur and Beanibazar. It also operates 2 condensate fractionation plants and one Catalytic Reforming Unit (CRU) namely Rashidpur Condensate Fractionation Plant (RCFP), a 4000 Barrel Per Day Capacity Condensate Fractionation plant (4000 BPD CFP) and a 3000 Barrel Per Day Capacity Catalytic Reforming Unit (3000 BPD CRU) plant to produce Petrol, Diesel, Kerosene, Octane and LPG. A total of 13 wells (3 at Sylhet, 3 at Kailashtila, 5 at Rashidpur and 2 at Beanibazar) are presently on stream which produce around of 117 million cubic feed of gas per day and 532 barrel of condensate per day. The produced gas is supplied to Jalalabad, Bakhrabad, Pashchimanchal and Karnaphuli Gas Distribution Companies franchised areas and the produced condensate is supplied to SGFL's Rashidpur CFP and CRU plant to produce petroleum product (Petrol, Diesel, Kerosene, Octane and LPG).



Generator Maintenance work at Rashidpur 4000 BPD CFP of SGFL

SGFL shares about 4.50% of the country's total gas production. In the FY 2022-23 SGFL produced 33.74 BCF of gas and 2,34,274 barrels of Condensate from its own fields. The company also produced 14,59,730 barrels of finished petroleum products (Petrol, Diesel, Kerosene, Octane and LPG) by fractionating condensate from its own fields and from Bibiyana Gas Field operated by Chevron. The produced Petroleum products are supplied to different marketing companies of Bangladesh Petroleum Corporation (BPC).

The company has been implementing various development projects to meet the growing demand for energy and enhancing the company's revenue income. The ongoing projects include: (i) 3D seismic survey of Beanibazar field of SGFL (191 sqkm); (ii) Drilling of well no. Kailashtila-8 (exploratory well); (iii) Workover of well no. Sylhet-8, Beanibazar-1 and Kailashtila-7; (iv) 3D seismic survey at the relinquished area of acreage block 13 and 14 (v) Drilling of well no. Sylhet-10 (exploratory well); (vi) Gas gathering pipeline construction from the RP-9 well to Rashidpur process plant; (vii) Installation of 45 MMscfd capacity gas process plant at Haripur Field and (viii) Workover of Kailashtilla-2, Rashidpur-2, Rashidpur-5 and Sylhet-7 wells.

The company has also taken the following projects to increase gas production by the year 2025. (a) Drilling of well no. Rashidpur-11 (Exploratory well); (b) Drilling of Well no. Sylhet-11 (Development well) and Rashidpur-13 (Exploratory well); (c) Drilling of well no. Dupitila-1 and Kailashtila-9 (Exploratory well); (d) Workover of well no. Rashidpur-3, Kailashtila-1 and Beanibazar-2 and (E) Drilling of well no. Sylhet-12 (Oil well)

The company earned pre-tax profit to the tune of Tk. 301.05 crore during the FY 2022-23 and paid Tk. 343.45 crore as VAT, Tk. 141.53 crore as income tax, Tk. 60 crore as dividend and Tk. 20.9 crore as DSL. The total contribution by the company to the Government exchequer in the financial year stood at Tk. 5,65.86 crore which was 34.54% of the total income from sales of gas and petroleum products.



# Gas Transmission Company Limited (GTCL)

Gas Transmission Company Limited (GTCL) was incorporated on 14 December, 1993 with the objectives of (i) centralized operation and maintenance of national gas grid and (ii) expanding of national gas grid and as required, ensuring balanced supply and usage of natural gas in all regions of the country. GTCL owns and operates major gas transmission pipelines throughout the country. Gas transmission pipelines built by other companies before creation of GTCL have been integrated with the GTCL system.

By operating pipelines and through designated points of the stations, during FY 2022-23 GTCL has delivered gas to the franchise areas of Titas gas, Bakhrabad gas, Karnaphuli gas, Jalalabad gas, Parchimanthal gas and Sundarban gas companies with 1,344.44, 251.42, 287.12, 126.87, 138.05 and 29.00 Crore Cubic Meters gas respectively totaling to 2,176.90 Crore Cubic Meters, which is 10.97% less than the previous year. On the other hand, transported 1,646.02 Lac Liter condensate, which is 34.62% less than the previous year, by North-South Condensate Pipeline from Chevron operated Jalalabad and Bibiyana gas fields and Kailashtilla gas field of Sylhet Gas Fields Ltd.

## Up-coming projects are:

(i) Construction of 30” dia. 65 km Bhola to Barishal Gas Transmission Pipeline; (ii) Construction of 36” dia. 110 km Gopalganj-Langalbandth gas transmission pipeline construction project; (iii) Construction of 42” dia. 190 km and 30” dia. 60 km Kuakata-Payra-Barishal-Gopalganj-Fakirhaut-Khulna Gas Transmission Pipeline; (iv) Construction of 52” dia. 290 km Moheshkhali-Bakhrabad Third Parallel Gas Transmission Pipeline and (v) Construction of 30” dia. 65 km Satkhira (Bhomra)-Khulna Gas Transmission Pipeline.

## Transmission of RLNG received from Liquefied Natural Gas (LNG)

Excelerate Energy Bangladesh Limited, an American company, has installed a 500 MMscfd capacity Floating Storage and Regasification Unit (FSRU) at the deep sea in Moheshkhali in Cox’s Bazar on 18 August, 2018 and Summit Corporation Limited, a private enterprise has installation another 500 MMscfd capacity FSRU at the deep sea. These 2 FSRUs supplied 574.52 Crore Cubic Meter gas (RLNG) during FY 2022-23 i.e., 555.86 MMscfd to the National Gas Grid.

## Information Technology

Enterprise Resource Planning/Enterprise Asset Management (ERP/EAM) Systems are in use in the Company for smoothly performing the Company’s official works and to achieve paperless scenario.

Graphical representation of daily gas production and marketing are regularly exhibited by Business Intelligent Dash Board. Work has been taken up as ERP/EAM System Back-up to transfer to Cloude process of Bangladesh Data Center Company Limited (BDCCL). Concerned officials are working with ERP supplier’s team for solution of day-to-day problems of SAP Module Configuration and Preparation of Reports. Important Meetings/Board Meetings are arranged virtually with ZOOM Platform.

IP Cameras have been installed in KPI Stations in Western Zones for continuous security surveillance in total 9 Nos. of offices (Hatikumrul, Baghabari, Bonpara, Rajshahi, Ishwardi, Bogura, Bheramara, Khulna and Kushtia TBS). Contract has been signed with supplier for installation of IP Cameras in 3 Nos. of KPI Installations (Ashuganj, Muchai and Feni).

The present official website and e-mail Domain Server of the Company “gtcl.org.bd” has been changed to “gtcl.gov.bd”. At present, the official website of GTCL (<https://gtcl.gov.bd>) and mail server (<http://mail.gtcl.gov.bd>) are operating in URL. For protection of website and mail server, procured Secured Socket Layer (SSL) Certificate and installed in the Server. All necessary information are updated instantly in the website of the Company included in National Portal and are regularly monitored.

## Innovative Activities

Installation of Explosion and Water Proof IP Cameras and alarm system at GTCL Platform in Moheshkhali Zero Point has successfully been completed. The entire Moheshkhali Zero Point Platform has been covered with Safety Net by installing 11 Nos. IP Cameras and 2 Nos. of Horn Speaker. Connection by Fiber Optic Cable the Camera and Horn System with that of the Control Room of CTMS has been completed. All equipment, Camera and Horn Systems on the Platform are run 24 hours by Solar Energy. Now it is possible to inspect from CTMS Control Room, 7-km away from the Platform, without visiting the high and low tide prone impassable Platform. It is to be mentioned that for safety and security of the high pressure gas transmission pipeline on the Platform area, necessary instructions can be given by the Alarm System (Microphone and Horn Speaker).

## Metering Activities

GTCL receives gas from 21 intake points and supply gas to distribution companies from 64 off-take points on GTCL pipelines. Out of 64 off-take points, 20 off-take points are of GTCL controlled and 44 off-take points are under the distribution companies' control. GTCL transports 70 to 75% total gas produced. Remaining gas are being taken directly by the distribution companies from the gas fields through their own transmission pipelines. For transparency, the gas meters installed at all intake points and off-take points are regularly calibrated jointly in every month.

Processes are in progress to identify the possible measurement errors and to provide solution by seven committees after through study of gas production and distribution company wise transparency in metering arrangements, system losses, identifying intake and off-transmission possible error of meter if found 2-3% difference on measurements of gas quantities at different intake points and off-take points. Under Off-Transmission Metering Project, works for installation of 10 metering stations at different locations, replacement of 4 metering stations, and modification works of 4 metering stations are in progress.



River crossing activities (HDD Method) under Bogra-Rangpur-Saidpur Gas Transmission Pipeline Project of GTCL



# Titas Gas Transmission and Distribution Company Limited (TGTDCCL)

The discovery of a huge gas field on the bank of the Titas River in Bhramanbaria in 1962 created a new horizon for the utilization of natural gas. Titas Gas Transmission and Distribution Company Limited (TGTDCCL) was established on 20 November, 1964. First domestic natural gas connection was provided to the residence of renowned literateur Shawkat Osman. As a leading national organization, it has earned the glory of being a trustworthy one for the people by means of the quality of service delivery in its long journey. This has been possible because of the relentless and cordial endeavours of its officials and employees.

Titas Gas is playing a significant role in strengthening the socio-economic status of a developing country like Bangladesh. By ensuring the desired use of natural gas it is playing a pioneering role in saving foreign exchange. As a pioneer of the enterprises in the energy sector, contribution of Titas Gas to the Bangladesh Economy is as evident as its eternal flame.

Since its inception, 90% and 10% of the company's shares had been owned by the then Government and the Shell Oil Company respectively. On August 9, 1975, according to the Nationalization Order of 1972, the then government with a nominal cost of 4.5 million Pound Sterling (17 to 18 crore taka of that time) established state ownership by purchasing 5 gas fields of Titas, Bakhrabad, Habiganj, Rashidpur and Kailashtilla respectively from multinational Shell Oil Company. Even after increasing gas use for four decades, we are getting 31.44% of the country's total gas production from these gas fields.

After the independence of Bangladesh in 1971, the Company started its journey as a company of Petrobangla with the authorized and paid up capital of Tk. 1.78 crore. At present, the authorized and the paid up capital of the Company are Tk. 2,000.00 and Tk. 989.22 crore respectively.

Main objective of the Company is to supply natural gas to customers of different categories under Titas Franchise Area, thereby reducing dependency on imported liquid fuel. Towards this end, the company has to construct, operate and maintain pipelines, stations and associated facilities. Currently the company distributes natural gas in 12 districts Dhaka, Narayanganj, Narsingdi, Munshiganj, Manikganj, Gazipur, Tangail, Mymensingh, Jamalpur, Sherpur, Netrokona and Kishoreganj.

Presently, company's total length of pipeline is 13391.32 km. The number of total customers of the company has stood at 28,78,757 on 30 June, 2023. Bulk customers of the company include 2 fertilizer plants, 56 power stations. The company holds about 55% of the natural gas market share in Bangladesh.

In the financial year 2022-23, the company sold a total of 14,459.41 million cubic meter of gas and earned gas sales revenue amounting to TK. 25,487.98 crore. The total revenue for the year was TK. 26,387.12 crore, inclusive of meter rent, higher heating value, surcharge, etc. which was Tk. 18,327.32 crore in the financial year 2021-22. In the financial year 2022-23, against the revenue income of TK. 26,387.12 crore, the collection amount included arrear bills totaling TK. 22,359.80 crore. This amount was TK. 4,027.32 crore less than the total receivable. The company paid Tk. 706.92 crore to the government exchequer during FY 2022-23. During the year the earnings per share (EPS) was Tk. (1.67).

## Installation of Prepaid Gas Meter for TGTDCCL Project

Under the package of Natural Gas Efficiency Project (BD-P78) of 35th ODA loan of Japan govt., TGTDCCL is installing additional 1 lac meter in Dhaka Metropolitan Area with previously installed 3.2 lac meter under 3rd revised DPP which was approved on 21 March, 2023 by the ECNEC. Main objectives of the project are to reduce system loss in domestic sector of Dhaka Metropolitan Area, conserve non-

renewable natural gas, decrease greenhouse gas emission etc. Some other positive outcomes include increase of efficiency regarding the use of natural gas among customers, improvement management efficiency within the company, minimization of monitoring cost, positive impact on environment. As per 3rd revised DPP, the total number of meters to be installed under the project is 4,20,000, duration of the project is from January, 2015 to June, 2024 and estimated cost of the project is Tk. 928.23 crore.

At present, field level activities are going in full swing for installing additional 1 lac prepaid meters at the third phase of the project. Total 31,680 prepaid meters have been procured in 5 lots in the FY 2022-23. By June, 2023, 13,771 prepaid meters have been installed against the target of 5,000 meters. Hopefully all remain meters will be installed by January, 2024. A full-fledged web system including independent data center (DC) and data recovery center (DRC) has been installed under the project. More than 500 point of sale (POS) are operating in different areas of the project under the contract with UPAY (a sister concern of UCBL). Customers can easily recharge their prepaid cards using these POS's. Apart from this, a contract has been signed with SSL commerce Limited, an online payment gateway service provider. As a result, customers will be able to easily recharge prepaid cards in future using their NFC enabled mobiles from their own locations. The contractor of the project has developed a mobile application in this regard. Now its efficiency is being tested by test run and will be uploaded in the App Store for the clients soon.

In the FY of 2022-23, Tk. 63.67 crore has been spent against the allocated Tk. 63.40 crore as per RADP of 2022-23. Financial progress was 100.42% against the allocation for 2022-23. The cumulative expenditure was Tk. 705.34 crore from the commencement of the project up to FY 2022-23 meaning the cumulative financial progress is about 76%. Physical progress of the project is nearly 80% up to FY 2022-23.

### **“The Project for Gas Network System Digitalization and Improvement of Operational Efficiency in Gas Sector in Bangladesh”**

To ensure reliable, effective and efficient gas supply system through the digitalization of gas transmission and distribution network, increase the efficiency of operational activities through SCADA and improve the safety and reliability of the gas network by the technical assistance and financial support from JICA. The activities under this project are as follows: Digitalization of gas transmission network and GIS mapping of distribution and service lines of Dhanmondi and Motijheel areas as pilot basis have been completed. Safety audit and updating of PFD (Process Flow Diagram) by visiting stations in the network are going on. Conducting training programmes on development of existing gas transmission network system and understanding of future infrastructure plans and analysis of gas supply system. Exchanging experience of JET (JICA Expert Team) on comparison of materials and equipments ID system and creating design standards. Task is ongoing to generate unified standards design parameters and unified ID standards for used materials and equipments in gas network system. Foreign training on gas network safety system and management has been provided. Experience exchange and training programmes are ongoing on formulating policy for gas network safety management system.

### **Clean Development Mechanism (CDM) Project**

The Clean Development Mechanism (CDM) project, registered with the United Nations Framework Convention on Climate Change (UNFCCC) and in accordance with United Nations Methodologies, is being managed with the investment and technical support of the Danish company NE Climate A/S (NEAS) under the supervision of CDM Cell of Titas Gas T and D Company Ltd . According to the Project Design Document (PDD) of the project, a total of 5,65,952 residential and commercial risers have been inspected and 35,252 leaky risers have been identified and repaired in 2017 under the Baseline Study programme of the said project and through this a total of 20.68 MMcfd of gas leakage has been stopped. The monitoring programme is being conducted consistently every year to check whether the gas leakage has been occurred again in the repaired risers in 2017 and currently the 6th monitoring

programme is going on. Due to successful verification of each monitoring programme of the project by the UNFCCC, the amount of Certified Emission Reductions in 2018, 2019, 2020 and 2021 were 33,78,611 tCO<sub>2</sub>e, 34,81,722 tCO<sub>2</sub>e, 40,49,551 tCO<sub>2</sub>e and 4,137,966 tCO<sub>2</sub>e respectively. These were made available for selling in the international market. The project will be continued till 2027 according to the agreement and UN Methodology.

3,042,231 US Dollar as Success Payment in FY 2022-23 have been accepted by Titas Gas Company through NE Climate A/S (NEAS) as per project agreement. Moreover, through these types of projects, it is possible to earn foreign exchange by using the saved gas in the industry to increase the gross domestic production (GDP) and reduce the emission of Green House Gas (GHG) emission while conserving the environment.

### **Verified Emission Reduction (VER)/VERRA Project**

Considering the success of the CDM project, a new project named Verified Emission Reduction (VER) was adopted in 2020 as per the decision of the 785th meeting of the Board of Directors of the company. An agreement was signed with the Company in 2021 to implement the project with the financial investment and technical support of NE Climate A/S (NEAS), Denmark. A total of 1,43,394 residential and commercial risers have been inspected and 17,072 leaky risers have been identified and repaired. Currently the 1st Monitoring programme has been completed and 2nd Monitoring including the Verification programme is going on. According to the project agreement, the project activities will continue until the year 2023. Noteworthy that 20,000 Euros have already been received from NE Climate A/S (NEAS) for publicity in print and electronic media for 'gas safety and public awareness enhancement'.

### **Development of ICT**

The on-going Web Based Integrated System of TGTDCCL has been Migrated to the egov. Cloud by Bangladesh Computer Council (BCC) and now it is going on from the egov. Cloud. A Dashboard has been launched so that the high officials could view all information of metered customers of Titas Gas at a glance. Customers are paying gas bill from any branch of 41 banks with online banking facility and customer ledger is getting updated on central server. Metered and non-metered customers are paying their gas bills through Rocket, Nagad and Bkash. The number 16496 of its own Call Center established in the Company remains open 24 hours every day so that any person can directly contact to know the necessary information or lodge complain about any matter.

Registered customers can check their outstanding bill details and take a printout of their up-to-date invoice from the web portal. They also can lodge any complaints from the company's web portal. Acknowledgment SMS is automatically sent to the customer from the central server when the customer pays the bill through banks with online banking facility.

Through integrated accounting software it is possible to provide various information on demand including annual/half-yearly accounts of the company and to finalize the accounts within a short period of time.

### **Removal/ Disconnection of Illegal Gas Pipeline**

Titas Gas T&D Company Ltd. has taken initiative to run Mobile Court Program to disconnect illegal gas connection and remove illegal pipelines, which is monitored by Central Task Force and supervised by District and Upazilla committees. In 2022-23 fiscal year, 389.77 km illegal gas pipelines have been removed and 2,82,856 illegal domestic connections (total 3,27,432 based on burner numbers) have been disconnected. In these drives 168 industrial, 232 commercial, 39 captive, and 10 CNG illegal gas connection have been disconnected. In 2022-23 FY Tk. 256.19 crore has been charged as penalty for illegal gas connection related activities.



# Bakhrabad Gas Distribution Company Limited (BGDCL)

Bakhrabad Gas Distribution Company Limited (BGDCL), previously named as Bakhrabad Gas Systems Limited (BGSL), was established on 7 June, 1980 initially with the three-fold responsibilities of production, transmission and distribution. Gas supply commenced on 20 May, 1984. Subsequently, Bakhrabad Gas Field was handed over to BGFCL putting an end to its production wing. Further, the 2 main transmission pipelines of the company, 24” x 110 km Bakhrabad-Chatto gram and 20” x 69 km Bakhrabad-Demra gas transmission pipelines were handed over to GTCL leaving only the responsibility for marketing gas in the Chatto gram division excluding Brahmanbaria district, Kashba and Bancharampur upazilas (outside its franchise area). As per Government decision, the company has again been reconstituted keeping greater Cumilla and greater Noakhali districts under its franchise area and adding Brahmanbaria to its operational area.

As per approved organogram, the number of officers is 450 and the number of staffs is 656, with a total work force of 1106. As on June, 2023, the total number of working manpower is 766 including regular employee of 234 officers and 209 staffs. 323 staffs are employed on temporary basis against permanent posts due to the work requirement of the company.

The cumulative gas pipeline of different categories constructed by the company up to June, 2023 was 3,894.715 km. The cumulative gas connection stood at 491,496 as on June, 2023 which includes 13 power plants, 1 fertilizer, 163 industries, 94 captive power stations, 1694 commercials, 86 CNG stations and 489,445 domestic (Burner) connections.

During the financial year 2022-23 BGDCL purchased 10725 BCF of gas and sold 101.14 BCF of gas to its customers. The company has deposited a total of Tk. 89.26 crore to the government exchequer through DSL, income tax and dividend etc.

A total of 4448 customers of various categories were disconnected due to non-payment of gas bill during the financial year 2022-23. Dues of Tk. 28.35 crores out of Tk. 30.88 crores has been recovered from disconnected customers and efforts are on to recover the remaining dues. In FY 2022-23, 29.19 km. of illegal pipelines of different diameters have been removed/deactivated and 2622 illegal connections were disconnected.

BGDCL has taken various steps to improve the quality of customer service, gas bills are being collected online through the use of modern information technology by 31 contracted banks and software such as GPay, Rocket, Ekpays, Telecash, Nagad, as well as through debit/credit cards from metered and non-metered customers. It may be noted that the registration of 202,301 customers has already been completed for online gas bill payment. In the fiscal year 2022-23, approximately Tk. 637.62 crore in gas bills were collected online from customers across various categories.

BGDCL has launched “BGDCL Gas Distribution Management System” software developed by IICT, BUET to integrate revenue, marketing and engineering services activities of the company. Also, various types of accounting software, “BGDCL Store and Inventory Management System”, “BGDCL Customer Service tracking System”, “BGDCL Contractor Management System”, “CNG Remote Monitoring System”, and “CP Monitoring System” software have been launched.

The company is inviting tenders through the e-GP system to ensure transparency and accountability in the procurement process. Out of 12 e-tenderable tenders for the financial year 2022-23, all tenders have been completed through e-GP. e-filing system has been introduced from June, 2018 at all levels in the company. This has increased the dynamism and accountability in the company’s official work.

Based on the directives of Petrobangla, BGDCL has taken steps to prepare GIS-based maps for each transmission and distribution line within BGDCL's network. As part of this, GIS-based digital mapping of 75 km of pipelines has already been completed out of the 3894.715 km of pipelines under BGDCL's jurisdiction.

BGDCL affiliated area are under cathodic protection System. There are 13 CP stations in this network whereas 6 are Thermo Electric Generator (TEG) operated and 7 are Transformer Rectifier (TR) operated. Out of the 13 CP stations, 11 CP stations have been brought under online monitoring. Activities are being initiated for bringing the remaining 2 CP stations under online monitoring.

10.25 km. gas pipelines of different diameters of 4 bar and 10 bar pressure are constructed as a replacement of existing gas pipeline under the project titled "Upgradation of Ashuganj Nadibandar-Sarail-Dharkhar-Akhaura land port highway to 4-lane national highway (Package-01)". Besides 1.37 km. pipeline has been constructed to supply gas to the 3 new industries named M/S Agata Feed Mills Ltd., M/S Elite Hitek Industries Ltd. and M/S Angel Textile Composite Mills Ltd. in Burichong Upazila of Cumilla District. On the other hand, to solve the low-pressure problem total 2.87 km Pipelines of various diameters have been constructed.

Pre DPP has been approved for the installation of 488,000 prepaid gas meters in the premises of domestic customer of BGDCL. AIIB (Asian Infrastructure Investment Bank) has expressed interest in financing the projects. As per the requirements of AIIB and the instructions of Petrobangla, preparation of an integrated Environmental and Social Study (E&S) report for the proposed projects is under process.

An integrated Enterprise Resource Planning (ERP) system is being implemented under the supervision of Petrobangla. This initiative aims to achieve the desired targets and ensure accountability in government activities by properly executing the declared policies and programmes of the government for Petrobangla and its subsidiary companies (including BGDCL).



Hook-up activities to supply gas to New DRS by BGDCL



# Jalalabad Gas Transmission and Distribution System Limited (JGTDSL)

The commercial use of natural gas began with the supply of gas to the Chhatak Cement Factory in 1960 and Fenchuganj Fertilizer Factory in 1961. Subsequently, with the completion of Habiganj Tea Valley Project in 1977, the activities of the Sylhet Town Gas Supply Project were initiated to meet the demand of gas in greater Sylhet region and gas connection in the Sylhet town was started formally in 1978 with the inauguration of supply of gas at the premises of the mazar of Hazrat Shahjalal (R). Thereafter, the gas supply network recorded a significant expansion gradually in the Sylhet region which helped formation of Jalalabad Gas Transmission and Distribution System Limited (JGTDSL) on 1 December, 1986 through infrastructural development of gas transmission and distribution system under the management of Petrobangla.

The Company possessed a total of 3,885.86 km gas network comprising of 570.88 km transmission, 1342.82 km distribution, 1,224.72 km feeder mains and service lines and 747.44 km other (customer financing) pipelines. During the FY 2022-23, the Company constructed 1744 km pipelines including 15.98 km transmission and 1.47 km distribution lines. The company provided 8 new connections which included 5 captive power and 3 industrial connections. The cumulative gas connection stood at 2,21,142 as on 30 June, 2023 which includes 19 power, 1 fertilizer, 130 industrial, 131 captive power, 1,217 commercial, 100 tea-estate, 59 CNG and 2,19,485 domestic (Burner) connections.

During the FY 2022-23, the gas sales of the company was about 139.7340 BCF of which power plants consumed 94.7816 BCF (67.83%) and others 44.9524 BCF (32.17%). During the FY 2022-23, the Company earned Tk. 5,231.7 crore as revenue which included sales revenue of Tk. 4,974.7 crore and other income Tk. 256.8 crore, Tk. 229.7 crore as net profit before tax and Tk. 162.6 crore after tax. The Company paid Tk. 125.4 crore to the national exchequer.

During the FY 2022-23, gas connection of 1317 no. of different categories of customers i.e. 9 commercial, 3 industrial, 1 tea-estate and 1304 domestic customers have been disconnected due to non-payment of gas bills amounting to TK. 21.73 million of which, gas re-connection of 2 industrial, 9 commercial, 1 tea-estate and 1088 domestic customers i.e. a total of 1100 numbers of connections of the customers have been reinstated by realizing Tk. 2.3 crore.

At present, there is no illegal connection in Jalalabad Gas Transmission and Distribution System Ltd. Though gas transmission and distribution policy permits maximum acceptable technical system loss of 2%, with effective management and proper maintenance the loss was kept to 0.97% by the end of the 2022-23 financial year. Besides, Comprehensive strategies together with ongoing efforts have been implemented to mitigate overall system loss and control further losses. Moreover, office activities are being conducted through d-nothi system, procurement is being done by e-GP, grievances are disposed through the GRS system, digital attendance programme has been implemented, online Gas bill collection programme is ongoing and a smart pre-paid meter installation project for domestic customers is on the track. 90 EVC meters have been installed within the Jalalabad Gas T&D System Ltd. (JGTDSL) franchise area for accurate calculation of system loss of gas, raising awareness about consuming of gas and increasing the trust of customers regarding gas supply which will significantly support in achieving the Sustainable Development Goals of Bangladesh.

JGTDSL already started online gas bill collection through VISA/Master card, bKash, Rocket, Surecash, gpay, Robicash, Ok wallet and on realtime with several bank by which a customer can pay their gas bills at any time without appearing any bank by using mobile internet. Information pertaining to an

updated status regarding payment of the gas bill are being provided to the customers through SMS. Customer services are also going on uninterruptedly through hotline no. 16511.

A Project titled “Installation of 50000 pre-paid gas meter in the franchise area of JGTDSL” has been taken up for an installation of pre-paid gas meter for the domestic customers under Sylhet City Corporation and Sylhet Sadar Upazilla distribution areas with the Company’s own financing with a view to ensuring affordable, efficient and sustainable usage of natural gas, introduction of advanced and digital metering system and aiming at curbing gas wastage at domestic level. The revised approved cost of the project is Tk. 13650.00 lakh and the revised implementation period is from 1 January, 2021 to 31 December, 2023. Development Technical Consultants Pvt. Ltd. (DTCL), Dhaka has been appointed as the project consultant on July 14, 2021. A contract has been signed between JGTDSL and the Consortium of Zenner Metering Technology (Shanghai) Ltd. and Hexing Electrical Co., Ltd., China on 25 September, 2022 for design, engineering, supply and installation of 50000 meter, installation of data center and data recovery center, supply of hardware and software along with testing and commissioning of pre-paid metering system. 5800 pre-paid gas meters are installed in the customer’s premises up to June, 2023. Rest of the meters installation is going on. Installation and configuration of data center and data recovery center, server, storage etc. and Prepaid metering software has been completed. All meters will gradually be commissioned afterwards in pre-paid mode.

A project titled “Construction of Central Store Complex of JGTDSL” has been taken up for construction of a 4-storey office building, a 3-storey store building, a 2-storey store building, 1-storey Ansar building, 14 pipe yard, 1 scrap yard for proper storage of goods, saving time and money by distributing the linepipe and pipeline materials in the shortest possible time and protecting wastage of the goods through central security management of the Company. The project is self-financed and it was approved on 1 June, 2022 by Energy and Mineral Resources Division. The revised approved cost of the project is 2435.00 lakh and revised implementation period is March, 2022 to June, 2025. The master plan, architectural, structural drawing and estimate have been submitted by the consulting firm. Land development work has been completed. Contractor has been already appointed for construction of various structure under the project. The work has started at the field level and is currently ongoing.



Habiganj DRS Regulator maintenance works by JGTDSL



## Pashchimanchal Gas Company Limited (PGCL)

Pashchimanchal Gas Company Limited (PGCL) is the 4th gas marketing company under Petrobangla set-up with the objective of distributing gas in the north-west region of the country. The company commenced its business on 23 April, 2000. During the FY 2022-23, a total of 0.937 km of pipeline of various diameters was constructed and by the end of June, 2023 the company encompassed a network of 1,677.716 km pipeline.

At the end of FY 2022-23, the company provided gas connection to 1,29,406 customers including 6 new gas connections (1 industrial, 3 captive power and 2 Domestic (Govt.)). During this fiscal year, a total of 47.42 BCF gas was sold by the company as compared to 49.24 BCF gas in the previous year. The company earned Tk. 16,81.41 crore revenue from sales during FY 2022-23 and earned Tk. 1,33.92 crore as net profit before tax. A total of Tk. 166.52 crore has been deposited to the National Exchequer during this fiscal year.

The company is always putting its best efforts for achieving its desired goals. Over the time, the company has extended its gas network facilities in Sirajganj, Baghabari, Bera, Santhia, Shahjadpur, Pabna, Ishwardi (including Ishwardi EPZ), Bogura, Rajshahi and other important areas to reach the benefits of gas facility on the doorstep of the masses.

PGCL conducts drives against gas pilferage and illegal activities regularly. A total of 690 nos. gas connections have been disconnected for illegal gas consumption through legal connection and gas bill default in FY 2022 -23 where 685 domestic and 5 commercial connections are included. On the other hand, by recovering the arrear gas bills amounting to Tk. 78.8 lakhs and the penalty amounting to Tk. 19.80 lakhs, a total of 719 customers have been provided gas reconnection.

DPP for supplying the natural gas through pipeline at Rangpur Division covering Rangpur, Nilphamari, Pirganj town and its adjoining areas has already been approved by the Executive Committee of the National Economic Council (ECNEC) on 22 June, 2021. Subsequently the proposal of 1st Revision of DPP at an estimated cost of Tk. 32,661.00 lakhs has been forwarded to the Planning Commission for approval. As per the proposed 1st Revised DPP the duration of the project is from July, 2021 to December, 2025. The total financial progress of the project till June, 2023 is Tk. 13,377.24 lakhs, which is 51.83% of the project cost and physical progress of the project is 40%.

A project titled "Installation of pre-paid gas meters, SCADA and GIS system in PGCL franchise areas has been proposed 1,28,000 pre-paid gas meters, SCADA and GIS systems in PGCL franchise areas with World Bank and GOB funding to ensure effective utilization of natural gas, prevention of gas wastage, introduction of modern billing system and enhancement of financial management efficiency to mitigate future energy crisis, is under approval process.

All tenders of the company related to procurement of goods and services are being completed through the national e-Government procurement (e-GP) portal for ensuring wide participation and establishing equal rights of all bidders and maintaining procurement skill, transparency and accountability. Under supervision of the Cabinet Division and assistance of the access to information (a2i) programme, e-filing activities have been successfully implemented in PGCL. All file works of the company are being completed through e-filing system. Payment of gas bills through online has already been implemented in the company. Information pertaining to up-dated status regarding payment of gas bill has been provided to the customer through SMS. Besides, customer services are also going on uninterruptedly through hotline nos. 16514 (from any mobile) or 096130-16514 (from any BTCL connection).



# Karnaphuli Gas Distribution Company Limited (KGDCL)

Karnaphuli Gas Distribution Company Limited (KGDCL) was formed on 8 February, 2010, with greater Chattogram and Chattogram Hill tracts area pursuant to a government decision to rationalize and improve the services rendered to the customer. The commercial activities of the company commenced on 1 July, 2010.

## Financial Information:

The company has been able to achieve pre-tax profit of Tk. 374.10 crores by selling gas of Tk. 5,343.27 crores in various sectors in the FY 2022-23. Tk. 198.65 crores has been deposited in the government treasury through Petrobangla as dividend from the profit earned. Regarding income tax, a total income tax of Tk. 429.37 crores has been paid to the National Board of Revenue (NBR) including Tk. 163.62 crores against the income of FY 2022-23 and Tk. 265.75 crores with the return of FY 2021-22. A total of Tk. 822.47 crores has been deposited to the state treasury in the FY 2022-23, including Tk. 191.56 crores for income tax and Tk. 2.89 crores for VAT deducted from the supplier's bills.

## Customer Gas connections:

The cumulative gas connection stood at 6,01,028 including 6 electricity, 4 fertilizer, 1,160 industrial, 205 captive power, 2,837 commercial, 2 tea gardens, 70 CNG and 5,96,744 domestic connections.

## Gas Disconnection and Reconnection Activities:

If any information/complaint about illegal gas connection, illegal pipeline construction, unauthorized equipment usage and gas rigging in KGDCL franchise area is received, it is immediately conducted through disconnection/eviction following relevant rules. Besides the connection points of various categories of customers are regularly inspected by the vigilance team of the company. If any irregularity in gas consumption is observed by the customer during inspection, action is taken as per Gas Biponon Niyomaboli 2014. If obstruction is caused in the process of disconnection of gas by illegal gas users, with the help of the Executive Magistrate law enforcement forces and public representatives of the concerned area, further necessary measures including gas disconnection are taken as per the rules. During FY 2022-23 under consideration, 1328 connections were disconnected and 1183 reconnections were provided. The details of disconnection and reconnection by KGDCL during FY 2022-23 are mentioned below:

## Integrated Software System:

In 2014, for development of online software, KGDCL and IICT, BUET entered into an agreement with the aim of building module-based software for KGDCL's marketing, engineering services and finance divisions.

Later in 2019, the software was upgraded through another contract execution. It should be noted that various modifications are continuing in the implementation of the decision of the Bangladesh Energy Regulatory Commission to simplify the services in the integrated software system.

About 300 user interfaces and various reporting functions along with information and service activities required by about 6 lakh customers of all categories of the company namely-New Customer Connection, Meter Reading Entry, Bill Preparation, Disconnection, Reconnection, Meter change, Meter Sealing, Load Change, Lay-Off, Name Change, Zone change, Customer Type Change, Customer online Registration, Online Bill Collection, Demand Note Preparation, Demand Note Encashment, Collateral Entry, Collateral Reconciliation, Sales Report, Defaulter List, Arrears List, Customer Ledger, Collateral Ledger, Accounts Receivable etc. are running live on the ERP software installed at KGDCL. Officers and respective users of various divisions/departments/sections/sub-sections are performing the mentioned tasks/events through role wise two-level verification as per the organogram.

### **Online Billing System:**

Earlier, all categories of customers of KGDCL were paying gas bill online using over the counter system through all branches of 23 online Banks and only non-metered residential customers through MFS/Gateway system through 7 MFS systems (bKash, R Rocket, NexusPay, GPay, TeleCash, SureCash, MyCash) contracted with KGDCL. In the FY 2022-23, API integration work has been completed in the online server of KGDCL for online billing collection of 4 new online banks (NRBC Bank, Union Bank, Madhumati Bank, Islami Bank) and 2 new MFS systems (Upay, mCash) with KGDCL. Among the mentioned new banks/MFSs, NRBC Bank, Union Bank, Madhumati Bank, Upay have currently started online collection operations and Islami Bank, mCash is in the process of starting online collection operations. KGDCL's industrial, CNG customers are informed about bill information through SMS after monthly bill preparation. After paying the bill, the software system is providing the confirmation SMS to all customers.

### **Installation of pre-paid meters in residential connections:**

The project entitled as "Installation of Prepaid Gas Meters of Residential Customers of KGDCL" was approved with the aim of installing 1 lakh prepaid gas meters in KGDCL franchise area with the company's own funding at the cost of Tk. 24,161.00 lakhs in order to reduce systems losses by preventing wastage of natural gas and ensure effective supply and use of gas. Installation of prepaid gas meters will increase gas usage efficiency among residential customers and company's management efficiency, reduce monitoring costs and have a positive impact on the environment. The project duration was from February, 2021 to June, 2023. On 17 August, 2023, the Energy and Mineral Resources Division (EMRD) extended the duration of the project up to June, 2025 and approved the RDPP of the project at a revised cost of Tk. 29,149.00 lakhs. The contract with the project consultant was executed on 9 May, 2022 and with the EPC contractor of the Project TOYOKEIKI CO. LTD., Japan on 19 September, 2023. Installation of meters is expected to start from January, 2024.

### **Gas Distribution Network Upgradation Project in Fouzderhat-Sitakunda-Mirsharai area:**

In order to accelerate the industrialization of the country, the project titled as Upgradation of Gas Distribution Network in Fouzderhat-Sitakunda-Mirsharai area was taken to meet the increased gas demand of existing customers and supply gas to new industrial customers in Fauzdarhat, Sitakund, Mirsarai and Baroyarhat areas of Chattogram. As a result of the implementation of the said project the capacity of the distribution network in the project area will be increased from 50 MMscfd to 400 MMscfd. Under the project, construction of 20" diameter×150 psig×57 km gas distribution pipeline from Fouzderhat to Baraiyarhat along the Dhaka-Chattogram highway and interconnection of the proposed pipeline with GTCL's TBS and the existing network of KGDCL will be accomplished. Project Director has been appointed on 31 July, 2021 after approval of the project on 2 June, 2021 at an estimated cost of Tk 21,072.00 lakhs with KGDCL's own financing. The duration of the project is from July, 2021 to October, 2023. Till June, 2023 Tk. 16,593.51 lakhs has been spent on the project. Significant activities carried out/undertaken during the financial year 2022-23 to achieve the objectives of the project are as follows:

- Lines pipes are procured and stored at KGDCL's contracted yard
- Valves of various types and sizes, 20" induction bends and coat and wrap materials are procured and stored at KGDCL's Fouzderhat warehouse.
- Fittings materials arrived at Chattogram port. The goods will be expeditiously redeemed and stored in the Fouzderhat warehouse of KGDCL.
- Contracts are in process with the lowest bidders against pipeline construction works.
- Completed the EIA process for environmental clearance and submitted the EIA report to the Department of Environment.
- After opening of international tenders for procurement of CP material and TEG, tender evaluation is ongoing.



## Sundarban Gas Company Limited (SGCL)

Sundarban Gas Company Limited (SGCL) was formed on 23 November, 2009 with the objective of supplying natural gas to the South-Western region of the country which includes Khulna Division, Barishal Division and greater Faridpur district. The main responsibilities of the company are to construct distribution pipelines, provide gas connections and post connection services under its franchise area.

The company started commercial operations from 28 August, 2013. In addition to increasing the company's marketing and revenue activities under the proper management of the authorities, it is playing a positive role in the national economy and socio-economic development by achieving the desired success in the overall affairs. During the FY 2022-23, the company earned a total revenue of Tk. 906.06 crore out of which TK. 836.89 crore from sales of 915.72 MMcm gas and rest TK. 69.16 crore from other operational income in this year. The company made total expenditure Tk. 809.75 crore, out of which Tk. 786.34 crore was spent to purchase gas and the rest Tk. 23.42 crore was spent to meet the cost of gas distribution. After considering other non-operating income, income from bank interest, interest expense for loan, provision for labor participation fund etc., net profit before tax and after tax for the FY 2022-23 were Tk. 95.64 crore and 69.34 crore respectively.

Presently, the company is continuing supply of natural gas and providing post connection service to VERL 34.5 MW RPP, NBBL 220 MW CCPP, Bhola 225 MW CCPP (BPDB), 2 captive power, 2 Commercial, 7 Industrial, 29 metered domestic connections and 2345 non-metered domestic customers in the island district Bhola. In addition, gas is being supplied to Bheramara 410 MW CCPP located at Kushtia District. In FY 2022-23, around 863.214 MMcm gas has been supplied to power plant and 52.507 MMcm gas to other non-bulk customers. On average, daily 89 MMscfd gas is being supplied to different customers in SGCL franchise area.

Besides, the construction and commissioning of the RMS for 225 MW Combined Cycle Power Plant of North West Power Generation Co. Ltd. (NWPGL) at Khalishpur in Khulna has been completed under the supervision of this company. Later on, gas will be supplied to the power plant after the signing of Gas Supply Agreement (GSA) between SGCL and NWPGL which is subjected to the availability of adequate gas from National Gas Grid. For supplying gas to 225 MW CCPP, a letter has been sent to Petrobangla seeking the approval of signing the GSA between SGCL and NWPGL based on the model of proposed final unified GSA by the Ministry.

On the other hand, A 20 MMscfd capacity DRS was constructed by SGCL and commissioned on 19 June, 2022 aiming to provide gas connection to 4 associated industries of BRB Group in Kushtia District with the approval of proper authority. At present, gas connection has been provided through gas commissioning to Kiam Metal Industries Ltd. and M/S MRS Industries Ltd among the 4 associate industries of BRB Group. The works needed to be done for gas connection in the other two industries are in progress.

In addition, the construction of 9.2127 km of 24 inch diameter and 1.8553 km of 20 inch diameter that is a total of 11.068 km pipeline from GTCL's Aranghata CGS at Khulna to power plant yard has already been completed for supplying gas to the Rupsha 800 MW Combined Cycle Power Plant as per the Memorandum of Understanding (MoU) signed between North-West Power Generation Company Limited (NWPGL) and Sundarban Gas Company Limited (SGCL). It is necessary to be noted that a off-take of 12 inch diameter has been kept at the end of the aforesaid pipeline under the same project. At present, construction and commissioning of RMS, Control Building and other civil works are going on under the technical support and supervision of SGCL.

For supplying gas to the Khulna 330 MW Dual Fuel Combined Cycle Power Plant which is under construction by BPDB, a MoU has been finalized by proper authority of SGCL and sent to BPDB. In a reply, BPDB authority said that they will take steps to finalize the MoU once the contract with the contractor for the construction of the interconnecting pipeline is completed. Tender was invited and the evaluation report of the received tenders has been submitted to the appropriate authority.

Gas is being supplied commercially to 220 MW CCPP of Nutan Bidyut (Bangladesh) Limited (NBBL) at Borhanuddin, Bhola for power generation on emergency basis. The permanent RMS and pipeline construction of the power plant is nearing completion. Construction of control building and pipeline has been completed. At present, the work of permanent RMS commissioning is going on. 96% progress has been achieved on permanent RMS and pipeline construction activities.

A contract was signed between Intraco Refueling Station PLC and SGCL on 21 May, 2023 for supplying the excess gas of Bhola district to the industrial consumers under the franchise area of Titas Gas by means of compression, transportation and depressurization at its own initiative and expenses. As per Intraco, it will be possible to supply 5 MMscfd of compressed gas from Sachia area of Bhola to industrial customers under Titas Gas shortly in the first phase. At present, 9 compressors have been installed in Sachia area and construction work of 8 dispensers, 1 transformer and other associated infrastructure construction work is going on. Besides, as there is necessity of developing and constructing civil and gas infrastructure to supply 20 MMscfd gas in the next phase, related activities are currently underway at Intraco end.

Under cathodic protection system upgradation of existing pipelines of SGCL, recruitment process of contractor is in progress to complete ancillary works including two transformer rectifier sets at Bhola and one transformer rectifier set at Bheramara service line. Besides, for maintenance of existing pipelines and valve pits located in Bhola area, contractors have been engaged for one year and detailed maintenance work is ongoing. 10" X 1000 psig X 33 km existing in Bhola area. Permanent repair work was successfully completed on 25 February, 2023 by replacing 7 leakages in circulation pipeline with 10" X 5' pipe.



Under construction Rupsha 800 MW CCPP RMS in Khalishpur, Khulna by SGCL



# Rupantarita Prakritik Gas Company Limited (RPGCL)

An entity named 'Compressed Natural Gas Company Ltd' was formed on 1 January, 1987 with a view to ensuring multi-dimensional use of natural gas-which is a valuable resource of the country by resorting to alternate sources of fuel for preventing air pollution, saving foreign exchange and reducing import of fuel from abroad. Later, due to expansion of its activities, the name of the Company was changed to 'Rupantarita Prakritik Gas Company Limited (RPGCL)' on 9 February, 1991.

Rupantarita Prakritik Gas Company Limited (RPGCL), a company of Petrobangla, has been entrusted with the functions to manage, supervise and coordinate the use of Compressed Natural Gas (CNG) in Bangladesh. The extensive use of CNG has been playing an important role in reducing our dependence on imported liquid fuel for use in vehicles. As of June, 2023, 536 of the total 604 approved CNG refueling stations were operated across the country and on an average about 0.507 million vehicles were refueled with CNG from these stations every day. On average 3.48 BCF of CNG has been used in every month, which is about 4.5% of the total gas consumption in the country. Operation Division, Condensate Handling at the Ashuganj Condensate Handling Installation (ACHIS)

Bangladesh government has planned to import LNG in line with the existing and increasing gas demand in the country. Under the supervision of Petrobangla, RPGCL is accomplishing all necessary functions regarding LNG infrastructure development, LNG imports, and RLNG supply to the national gas grid.

Terminal use agreements (TUAs) were signed with Excelerate Energy Bangladesh Limited (EEBL) and Summit LNG Terminal Co. (Pvt.) Ltd. to install 2 FSRUs at Moheshkhali, approximately 90 kilometers south of Chattogram, for supplying 500 MMscfd of LNG each. After the installation of the FSRU by EEBL, RLNG supply to the national gas grid commenced commercially on 19 August, 2018. Total LNG imports through this terminal were 2.108 million tons, and the total RLNG supply to the national gas grid was 105,177 million cubic feet in FY 2022-23. After the installation of the 2nd FSRU by Summit, RLNG supply to the national grid commenced commercially on 30 April, 2019. Total LNG imports through this terminal were 1.976 million tons, and the total RLNG supply to the national grid was 98,260 million cubic feet in FY 2022-23.

Aiming to install a 1000 MMscfd land-based terminal named "Land based LNG Terminal," a request for proposal (RFP) has been issued to 8 shortlisted bidders on 15 March, 2022, in order to select an appropriate terminal developer. The terminal is expected to be commissioned by 2030. Beside this, a Gas Supply Agreement (GSA) between H-Energy and Petrobangla is in process to import RLNG through a cross-border pipeline from India.

The proposal from Summit Oil and Shipping Co. Ltd. (SOSCL) to set up an FSRU at Moheshkhali has been approved in principle by the government. Negotiations with SOSCL are in progress to finalize the draft agreements (TUA and IA). The proposal from Excelerate Energy to set up an FSRU at the Payra deep sea area has been approved in principle by the government.

Again, a proposal from Excelerate Energy to expand the existing FSRU (MLNG) to increase its regasification capacity has also been approved in principle by the government. Negotiations with Excelerate Energy are in progress.

To import LNG from Qatargas, a sale and purchase agreement (SPA) was signed on 25 September, 2017 with Ras Laffan Liquefied Natural Gas Company Limited (3), a Qatar-based government agency, to supply of 1.8-2.5 MTPA of LNG for 15 years. A total volume of 2.406 million tons of LNG was imported from Qatar through 39 cargoes in FY 2022-23.

Another SPA was signed with Oman Trading International Ltd. (present name: OQT), an Oman-based government agency, on 6 May, 2018 for supplying 1.0–1.5 MTPA of LNG for 10 years. A total volume of 0.925 million tons of LNG was imported from OQT through 15 cargoes in FY 2022–23.

In addition, Master Sale and Purchase Agreement (MSPA) was signed with 21 organizations (suppliers/traders) to purchase LNG from the spot market. The first cargo from the spot market was imported in 25 September, 2020. A total volume of 0.753 million tons of LNG was imported from the spot market through 12 cargoes in FY 2022–23.

In order to reduce the gap between demand and supply of gas, the government has planned to increase LNG imports. Accordingly, a proposal from SOSCL to supply LNG on a long-term basis has been approved in principle by the government. On the other hand, negotiations with Emirates National Oil Company Limited (ENOC), Qatar Energy, Perintis Akal Sdn Bhd, Malaysia, and OQT negotiation for long term contracts are in progress. In addition, an LNG supply contract negotiation on a long-term basis with EEBL, along with the expansion of MLNG, is also in progress.

In FY 2022–23 revenue earnings of the company decreased from those of the preceding fiscal year. During this fiscal year, the company earned Tk. 58.69 crore as revenue (before payment of VAT) from sales of CNG, LPG, MS and other heads. The net profit of the company for the FY 2022–23 amounts to Tk. 26.61 crore and made payment of Tk. 20.84 crore to the National Exchequer.



Accelerate FSRU SLNG



# Barapukuria Coal Mining Company Limited (BCMCL)

Barapukuria Coal Mine is the first and only coal mine in Bangladesh. In 1985, the Geological Survey of Bangladesh (GSB) discovered high quality bituminous coal spread over primarily indicated an area of 6.68 sq. km at a depth of 118-509 metres in Barapukuria. A detailed feasibility study has been carried out by the consulting firm John T. Boyd at 2017-2018 for extraction of coal from the Southern and Northern part of Barapukuria coal basin. According to the study result the coal reserve area and geological coal reserve has been increased. In compliance with that the present coal reserve area 8.03 sq.km and geological coal reserve 410 million metric tons respectively.

Mine construction was undertaken in 1994 and completed in 2005 under the terms of a Design and Construction Contract between the China National Import and Export Corporation (CMC), the Construction Contractor and Bangladesh Oil, Gas and Mineral Corporation (Petrobangla), the Employer. The Barapukuria coal is very environmentally friendly, very low in sulphur content (0.53%) and very high in heat generation capacity (11,040 Btu/lb).

Following completion of the Construction Contract in 2005, a separate Management, Production and Maintenance Services Contract was entered into between Barapukuria Coal Mining Company Limited (BCMCL) and a Consortium of CMC and Xuzhou Coal Mining Group Company Limited (XMC) for a period of 71 months. This Contract was completed in August, 2011.

On the 10 December, 2011, a Management, Production, Maintenance and Provisioning Services for Barapukuria Coal Mine (MPM&P) Contract (BCMCL/06/134/2011) was signed between BCMCL and a Consortium of Xuzhou Coal Mining Group Company Limited (XMC) and China Machinery Import and Export Corporation (CMC). The Contract was to produce 5.50 million metric tons (from the first and second slice) over a period of 72 months, with the operation of one longwall faces and associated fully mechanized development headings. The MPM&P Contract was completed on 10 August, 2017, with the Consortium producing approximately 5.504 million metric tons.

To continue uninterrupted production from the mine, the third MPM&P contract (MPM&P Contract-2017) for a period of 48 months was signed on 8 July, 2017 and came into effect on 11 August, 2017 and completed by the extended intended completion date of 29 December, 2021. The CEOMAW-2021 contract for a period of 6 years was signed on 30 December, 2021 and came into effect on 30 December, 2021 and will continue up to 29 December, 2027 having the production target of 4.50 million metric tons.

In the 2022-23 fiscal year, a total of 7.67 lakh metric tons of coal has been extracted from the mine and all the extracted coal has been sold to the Barapukuria coal-based thermal power plant. As a result, it has been possible to saving foreign currency on the import of coal. The Corona situation had been handled with Chinese and local workers the first half of the fiscal year 2022-23. Despite this, Barapukuria Coal Mining Company Limited has been succeeded to make a profit in the described fiscal year. In spite of the pandemic corona situation accelerating the construction of underground rock roadway 2 sets of Rock Road-Header has been installed in underground. As a result, 4,104.80 meters of roadway development against the target of 2,600 meters in the commented fiscal year as well as foreign goods has been imported in timely manner to keep Underground roadway development in progress.

In the FY 2022-23, total Coal Production was achieved by 7,66,557.46 Metric tons. During the FY 2022-23, the company earned Tk. 1,434.36 crore from sale of coal and Tk. 93.49 crore from other sources comprising a total amount of Tk. 1,527.84 crore. During this period Tk. 1,226.68 crore was spent as Cost of operation and expenditure against other heads. In this fiscal year, the net profit stood at Tk. 301.16 crore following deduction of Tk. 134.85 crore provisions for income tax, which was Tk. 63.7 crore in previous fiscal year. In addition to this, the actual revenue expenditure was Tk. 1,226.68 crore in the fiscal year under consideration against an allocated budget of Tk.9,190.00 million which is Tk 307.68 crore or 33.48% more than the allocated budget due to Fluctuation of exchange loss of Dollar against

foreign payment and increase of Coal production. During the FY 2022-23, the company deposited Tk. 285.56 crore to the government exchequer.

As a result of coal extraction by underground methods, the land in the mining area was degraded. Consequently, BCMCL acquired 652.17 acres of land as an influenced zone. In 2020, SREDA identified the potential of this land for establishing a solar power plant and conducted a feasibility study in collaboration with ADB. BCMCL received approval from the Government on 11 September, 2022 for establishing a solar power plant on its subsided land. Subsequently, BCMCL obtained permission from the Ministry of Land to lease this land to BPDB for the installation of a solar power plant.

Geological Survey of Bangladesh (GSB) found a large amount of iron ore rich rock at a depth of 426 to 548 meters in Alihat area under Hakimpur upazila of Dinajpur district. BCMCL was entrusted by the higher authority to conduct feasibility study of Alihat Iron Ore field. Accordingly, the study project entitled “Preliminary Study for Development of Alihat Iron Ore Deposit at Hakimpur, Dinajpur, Bangladesh” was taken by BCMCL.

To implement this study project, a contract between BCMCL and DMT Consulting Limited was signed on 25 July, 2022 under the project entitled “Preliminary Study for development of Alihat Iron Ore deposit at Hakimpur, Dinajpur, Bangladesh” and the contract came into effect on 10 August, 2022. Under the contract geological borehole drilling was started 2 May, 2023.

### **The Company’s Corporate Social Responsibility (CSR) activities**

The company’s Corporate Social Responsibility (CSR) activities have been further strengthened. In the fiscal year 2022-23, financial grants have been provided to the Following sectors:

- a) Financial grant from the CSR fund of the company for the financial year 2022-23, a total of BDT 37,20,000.00 including BDT 22,80,000.00 to 84 institutions (schools, colleges, madrasas, mosques, temples, graveyard renovation and other institutions) and a total of BDT 14,40,000.00 to 19 persons to meet medical expenses;
- b) Donation of BDT 6,000.00 per person for one-time annual grant and a total of BDT 79,62,000.00 for the betterment of lifestyle and on the occasion of Eid-ul-Fitr to a total of 1,327 people including Bangladeshi miners working in mines employed under BCMCL’s MPM&P contractor XMC-CMC Consortium and their sub-contractor JSME; Listed disabled workers and families of deceased workers and engaged in providing services to companies through outsourcing and BDT 8,000.00 per person as a one-time donation during Eid-ul-Azha and a total of BDT 21,76,000.00 to 272 people engaged in providing services to the company through outsourcing with the aim of encouraging.
- c) Donation of BDT 8,000.00 per person and a total of 1,06,16,000.00 to 1042 Bangladeshi miners working under XMC-CMC consortium due to successful and above target coal production from 1,306 long-wall face; The families of 12 workers who were injured/killed in an accident while working in the mine and 273 manpower engaged in providing services to the company through outsourcing from the company’s donation sector.
- d) Payment of BDT 35,00,000.00 to “Barapukuria Coal Mining Company Limited Officers and Employees Welfare Fund for the financial year 2022-23 as annual contribution of the company; And
- e) During the 4th agreement of 72 months duration, the Corporate Social Responsibility (CSR) of the company is being provided to the Bangladeshi workers employed/enlisted under the Chinese contractor company and the manpower engaged in providing services in the outsourcing process in BCMCL as monthly consumption allowance/financial assistance of BDT 1,500.00 per month.

Besides, financial assistance of BDT 3,000.00 per month is being provided to 07 local workers who got disabled while working under a Chinese contractor in the Barapukuria coal mine and BDT 4,000.00 per month to the families of the 5 workers who died while working in the mines.



# Maddhapara Granite Mining Company Limited (MGMCL)

Maddhapara Granite Mining Company Limited (MGMCL) at Dinajpur, the only underground mining company of this kind in the world, has been extracting granite which is used mostly as construction material. During the FY 2022-23, a total of 10,63,332.37 metric tons of granite was extracted from the mine and 5,71,720.43 metric tons was sold.

The Geological Survey of Bangladesh (GSB) discovered the deposits of hard rock at a depth of 136 meters at Maddhapara, Parbatipur of Dinajpur district in 1974. Later, a contract between Petrobangla and Korea South South Corporation (NAMNAM) of DPR Korea was signed on 27 March, 1994 for the development of Maddhapara Hard Rock Mining Project and accordingly, NAMNAM had undertaken the physical works of the project from September, 1994. Maddhapara Granite Mining Company Limited (MGMCL) was formed under Petrobangla on 4 August, 1998 to operate the hard rock mine at Maddhapara. Commercial production of Maddhapara Mine was started on 25 May, 2007, but the production was limited to about 600-800 metric tons per day in single shift operation.

Granite mining in Bangladesh is of great importance, as there is hardly any other source of construction aggregate. Maddhapara Mine has a production capacity of 1.65 million metric tons of granite stone per year is set for partial fulfilment of the country's demand. In order to continue the full range of target production (5,500 metric tons/day) from the Maddhapara Granite Mine and development of underground roadways and stopes, a contract was signed between the Maddhapara Granite Mining Company Limited (MGMCL) and the Germania-Trest Consortium (GTC) on 2 September, 2013 for management and operation of the mine having contract price of US\$ 171.86 million for six year. After the expiration of the contract period, a side letter agreement was signed between MGMCL and GTC on 29 July, 2020. According to the side letter agreement, the contractor will develop 2 new stopes with 1.10 million metric tons of granite rock production and will hand over 1.18 million metric tons of granite rock reserves in the underground stopes of MGMCL at the end of the extended one year contract period.

A new EPC contract was signed between MGMCL and GTC on 28 September, 2021 for management and operation of the mine having contract price of US\$ 118.60 million (foreign currency) and Tk. 2,66.75 crore (local currency). According to the contract, the contractor will develop at least 14 new stopes and produce 8.86 million metric tons of granite rock over a period of 6 years.

In FY 2022-23, a total of 10,63,332.37 metric tons of granite was extracted and 5,71,720.43 metric tons were sold. The company earned Tk. 214.14 crore from the sale of granite and made a net profit of Tk. 17.31 crore and made a payment of Tk. 85.36 crore to the national exchequer. Mentionable, since inception of the company, a total of 9.38 million metric tons of granite have been produced as of 30 September, 2023.

At present, the annual demand of stone in the country is around 19 million metric tons. Most of the demand is met by the stone imported from abroad. While 1.63 million metric ton of stone is being produced from the mine. In order to determine the possibility of increasing production of granite rock and preparation of granite slabs through expansion of the mining zone/area of Maddhapara Mine, a feasibility study project "Feasibility Study for Granite Slab Preparation and Enhancement of Stone Production by Expansion of Maddhapara Mine" was completed in August, 2019. According to the feasibility study report it is possible to develop a new mine with a production capacity of 3.30 million metric tons per year/11000 metric tons per day by taking a new project in the study area of 2.25 sq. km.

# Development Programmes for the Fiscal Year 2022-23

The Annual Development Programme of Petrobangla for the fiscal year 2022-23 had a total allocation of Tk. 9824.00 million, which includes Tk. 1908.60 million as project aid. The programme consists of 5 projects of which 2 are foreign-aided and 3 is GoB funded. In addition, there are 14 projects financed by the Corporation/Companies itself (Self Financing) involving total allocation of Tk. 4667.20 million. Furthermore, there are 12 projects under Gas Development Fund (GDF) in the same fiscal year with a total allocation of Tk. 7456.10 million. List of ongoing projects stating estimated total project cost, execution period and source of finance are as follows :

## Ongoing Projects (Foreign Aided and GoB) : FY 2022-23 (Taka in Million)

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost (PA)	Development Partners
1	Installation of Prepaid Gas Meter for TGTDCCL	Jan '15 - Jun '24	TGTDCCL	9282.33 (8070.03)	JICA
2	Installation of Wellhead Compressure at Location-A of Titas Gas Field	July '16 - Jun '24	BGFCL	7167.00 (6386.70)	JICA
<b>Sub-Total (foreign-aided)</b>				<b>16449.33 (14456.73)</b>	

## GoB funded: FY 2022-23 (Taka in Million)

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost
1	Construction of Bogura-Rangpur-Saidpur Gas Transmission Pipeline Project	Oct '18 - Jun '25	GTCL	14901.30
2	Bakhrabad - Meghnaghat - Haripur Gas Transmission Pipeline Project	Jul '21 - Jun '26	GTCL	15001.40
3	Rangpur, Nilphamari, Pirganj and Their Adjoining Areas Gas Distribution Network Project	Jul '21 - Jun '25	PGCL	3266.10
<b>Sub Total (GoB Funded) :</b>				<b>33168.80</b>

## Ongoing Projects (Self Financing) : FY 2022-23

(Taka in Million)

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost
1	Techno-Economic Feasibility Study, Engineering Services and Tender Management Services for Construction of a Land Based LNG Terminal at Matarbari Cox's Bazar	Sep '20 - Jun '26	PB	532.09
2	Consultancy Services for Implementing the Automation of Gas Transmission and Distribution Pipeline Networks under different Companies of Petrobangla	Aug '20 - Jun '24	PB	211.41
3	3D Seismic Survey at Beanibazar under Sylhet Gas Fields Limited	Oct'20 - Jun '24	SGFL	586.00
4	Installation of 50000 Pre-paid Gas Meter at JGTDSL Franchise Area	Jan'21 - Jun '24	JGTDSL	1456.80
5	Installation of Wellhead Compressors at Location-E and G of Titas Gas Field	Mar'21 - Jun '25	BGFCL	4955.00
6	Drilling of well No. Kailashtilla-8 (Explotory Well)	Jan'21 - Dec '24	SGFL	1725.90
7	Workover of Sylhet-8, Beanibazar-1 and Kailashtilla-7 wells	Jan '21 - Jun '23	SGFL	1551.90
8	Installation of Prepaid Gas Meter for KGDCL	Feb '21 - Jun '25	KGDCL	2914.90
9	Bijoy 10, 11, 12 IDECO Rig Maintenance, IPS Rig Upgradation and Rig Supporting Equipment Replacement Project	Jul '21 - Jun '24	BAPEX	1988.20
10	Fouzderhat-Sitakunda-Mirsarai Gas Distribution Network Upgradation Project	Jul '21- Dec '24	KGDCL	2421.20
11	Procurement of an individual Legal Consultant for LNG Terminal Development, LNG Import and other LNG Activities	Jul ' 21 - Sep '26	RPGCL	201.82
12	Bangabandhu Bridge (Railway Section) Gas Transmission Pipeline Project	Jul '21 - Jun '25	GTCL	4458.50
13	Installation and Modification of Gas Stations at Off-Transmission Points of GTCL	Jul '21 - Jun '26	GTCL	9385.30
14	Construction of Central Store Complex of JGTDSL	Mar '22 - Jun '25	JGTDSL	243.50
<b>Sub Total (Self Financed)</b>				<b>32632.52</b>

## Ongoing Projects (Under GDF) : FY 2022-23

(Taka in Million)

Sl.	Name of the Projects	Projects Period	Executing Agency	Estimated Cost
1.	Procurement and Installation of 60 MMscfd Process Plant for Shabazpur Gas Field	Jul '20 - Dec '22	BAPEX	960.30
2.	Drilling of Two Exploratory wells "Tabgi-1 and Illisha-1" and One Appraisal cum Development Well "Bhola North-2"	Jan '21 - Dec '23	BAPEX	9022.20
3.	Shariatpur-1 Exploratory Well Drilling Project	Jul '21 - Jun '23	BAPEX	1042.30
4.	3D Seismic Survey at Relinquished Area of Acreage Block 13 and 14	Jul '21 - Jun '24	SGFL	2819.60
5.	2D Seismic Survey Over Exploration Block 15 and 22	Jul '21 - Jun '24	BAPEX	1640.90
6.	Procurement and Installation of Wellhead Compressors at Srikail Gas Field	Jul '21 - Dec '25	BAPEX	2239.80
7	Drilling of Well No. Sylhet-10 (Exploratory Well)	Oct '21 - Jun '25	SGFL	5171.00
8	Gas Gathering Pipeline Construction from Well No. Rashidpur-9 to Process Plant	Jan '22 - Jun '24	SGFL	336.30
9	1 exploration well (Srikail North 1A) and 2 appraisal cum development wells (Sandalpur-and Begumganj-4(West)) drilling project	Mar '22 - Dec '24	BAPEX	2840.00
10	2D Seismic Survey over Exploration Block-6B South and 10	Jul '22 - Jun '25	BAPEX	1519.50
11	3D Seismic Survey over Zakiganj and Patharia West Structure	Mar '22 - Jun '25	BAPEX	945.50
12	Haripur Gas Field Setting up a process plant with a capacity of 45 million cubic feet per day	Oct '22 - Sept '24	SGFL	1231.00
<b>Sub Total (GDF)</b>				<b>29768.40</b>
<b>Grand Total (Foreign Aided+ GoB+Self Financing+ GDF)</b>				<b>112019.10</b>

Source : Planning and Monitoring Division, Petrobangla.

# Future Programmes

Energy is the driving force for the development of the country. The role of energy is important for the entire economic development, such as poverty reduction and the overall development of the country. By achieving impressive economic growth for the country, it is possible to improve the living standard of a huge population through proper utilization of the limited resources. To achieve this goal short-term, mid-term and long-term plans have been taken for gas and coal extraction, development and production. Furthermore, to ensure the energy supply, 2 FSRUs with the capacity of 500 MMscfd each have been installed at Moheshkhali for regasifying imported LNG and commenced transmission to the national gas grid on August, 2018 and April, 2019 respectively. Initiatives have also been taken for the development of coal fields in line with coal policy being finalized.

In view of the above perspective, the following strategies have been taken up for the oil, natural gas and mineral development under the Petrobangla umbrella:

- Adoption of a time-based action plan for discovering new gas fields and development of the producing gas fields;
- Make BAPEX more effective in exploring oil and gas through the acquisition of new rigs and their ancillaries;
- Importing Liquefied Natural Gas (LNG) to compensate for increasing gas demand;
- Support the Government in finalizing the National Energy Policy and Coal Policy to create opportunity for using energy from multiple sources; and
- Making efforts to ensure proper pricing of gas to conserve energy and improve the financial operations of the gas sector.

## Sector wise gas demand forecast (FY 2023-24 to 2027-28)

Unit: MMscfd

Sector	2023-24	2024-25	2025-26	2026-27	2027-28
Power	1,446	1,454	1,513	1601	1673
Captive Power	711	731	762	798	825
Fertilizer	284	286	286	366	366
Industry	916	976	1103	1267	1399
Commercial and Tea	28	28	28	28	28
Domestic	367	359	353	344	340
CNG	131	131	131	131	131
<b>Total</b>	<b>3883</b>	<b>3965</b>	<b>4176</b>	<b>4534</b>	<b>4761</b>

Source : Production and Marketing Division, Petrobangla

# Future Domestic Gas Augmentation Programmes

Petrobangla along with its subsidiary companies (BAPEX, BGFCL and SGFL) have initiated several programme for domestic gas augmentation under which 50 wells drilling programme by 2025 is running and 100 wells drilling programme is planned to execute from 2025-28. After successful completion of drilling programmes by 2028, about 1633 (648+985) MMcfd of gas is expected to gain and about 500MMcfd of gas will be sustained. Besides, about 30 MMcfd of gas is expected to gain by 2026-27 from IOC operated field.

Aiming for new exploration, several seismic survey (2D/3D) projects are also running in different onshore blocks of Bangladesh. Apart from this, interpretation of acquired 12,932 LKm of 2D Seismic data out of 32,000 LKm under Multiclient Survey is ongoing.

'Bangladesh Offshore Bidding Round, 2024' has been announced on 10 March, 2024 for oil/gas exploration in a total of 24 Offshore blocks, including 15 deep and 9 shallow blocks. The last date for submission of bids is 9 December, 2024. Apart from this, a revised draft model PSC for onshore has been prepared by refining the 'Onshore Model PSC 2019'. Potential areas for onshore PSC have been identified by a separate committee of Petrobangla.

The evaluation of EOIs received in the process of appointing international consultancy firms as per the PPR is underway in order to make the onshore model PSC refined by the Petrobangla committee more up-to-date and competitive in the global context.

The following table shows the summary of drilled and tentative drillable wells by NOC and IOC from FY 2022-23 to 2026-27.

**Table: Year-wise Drilling and Workover Programmes**

FY	Exploration wells		Development wells		Work-over Wells		Total Wells	
	NOC	IOC	NOC	IOC	NOC	IOC	NOC	IOC
2022-23	4	0	1	1	4	3	7	4
2023-24	2	0	2	1	4	3	8	4
2024-25	4	0	6	0	10	3	17	3
2025-26	9	0	6	0	11	0	24	0
2026-27	12	0	10	0	15	0	32	0
<b>Sub Total</b>	<b>31</b>	<b>0</b>	<b>25</b>	<b>2</b>	<b>44</b>	<b>9</b>	<b>100</b>	<b>11</b>
<b>Grand Total</b>	<b>31</b>		<b>27</b>		<b>53</b>		<b>111</b>	

Source: BGFCL, SGFL, BAPEX and PSC Directorate, Petrobangla

## Natural Gas of Bangladesh

### Chemical Composition, Specific Gravity and Calorific Value

No.	Name of the Gas Production Company	Gas Fields	Water Content (Lb/ MMscf)	Chemical Composition of Natural Gas (Volume Percent)							Specific Gravity	Gross Calorific (Btu/cft)	Hydrogen Sulphide	
				Methane	Ethane	Propane	IsoButane	N-Butane	High Comp.	N2				CO2
1		Sylhet/Horipur	1.2	95.349	2.542	0.974	0.247	0.296	0.165	0.247	0.18	0.5896	1056.878	Nil
2		Chitak	n/a	979	1.8	0.2	-	-	-	-	-	0.55	1005.71	Nil
3	SGFL	Rashidpur	1.2	98.489	0.802	0.148	0.053	0.028	0.046	0.338	0.096	0.5637	1017.234	Nil
4		Kailashilla	0.7	96.217	2.588	0.674	0.098	0.075	0.019	0.31	0.018	0.5773	1042.726	Nil
5		Beanibazar	4.4	93.536	3.499	1.324	0.309	0.274	0.603	0.354	0.099	0.6089	1086.418	Nil
6		Titas	4.5	96.587	1.9	0.406	0.099	0.06	0.166	0.343	0.44	0.579	1032	Nil
7	BGFCL	Habiganj	4.2	97.65	1.543	0.006	0	0	0.002	0.79	0.008	0.5648	1014	Nil
8		Bakhrabad	4.8	93.7	3.79	0.834	0.246	0.116	0.233	0.495	0.585	0.5989	1057	Nil
9		Narsingdi	4.2	95.264	2.702	0.593	0.172	0.096	0.233	0.351	0.589	0.5893	1044	Nil
10		Begumganj	n/a	95.46	3.19	0.64	0.17	0.04	-	-	0.3	0.58	1045.61	Nil
11		Semutang	n/a	96.079	2.499	0.415	0.103	0.056	0.096	0.209	0.542	0.5818	1037.08	Nil
12		Feni	n/a	95.71	3.29	0.65	0.15	0.05	-	-	0.15	0.58	1049.84	Nil
13		Kamta	n/a	95.36	3.57	0.47	0.09	-	-	-	0.51	0.57	1043.13	Nil
14		Fenchuganj	n/a	97.264	1.452	0.135	0.036	0.012	0.07	0.212	0.819	0.5743	1018.39	Nil
15		Megha	4.4	95.185	3.05	0.667	0.169	0.096	0.209	0.39	0.234	0.5878	1050	Nil
16	BAPEX	Shahbazpur	n/a	94.553	3.555	0.569	0.159	0.058	0.062	0.201	0.842	0.5913	1044.57	Nil
17		Satdanadi	n/a	96.959	1.781	0.324	0.079	0.048	0.095	0.129	0.583	0.577	1029.86	Nil
18		Shahjadpur Sundalpur	n/a	98.349	0.908	0.07	0.001	0.004	0.003	0.558	0.106	0.5634	1013.52	Nil
19		Srikail	n/a	95.928	2.452	0.527	0.135	0.078	0.134	0.13	0.616	0.5847	1041.05	Nil
20		Bhola North-1	n/a	92.105	4.786	1.173	0.408	0.165	0.289	0.536	0.537	0.613	1080.22	Nil
21		Jakiganj	n/a	97.292	1.548	0.273	0.045	0.035	0.066	0.494	0.246	0.5724	1025.14	Nil
22		Ilisha	n/a	92.467	4.604	1.14	0.34	0.153	0.144	0.676	0.475	0.6065	1069.54	Nil
23		Rupganj	n/a	95.03	2.498	0.592	0.172	0.105	0.188	0.2	1.216	0.5939	1039.11	Nil
24		Bibiyana	n/a	94.88	2.442	0.873	0.28	0.253	0.926	0.195	0.153	0.6107	1060	Nil
25	Chevron	Jalalabad	n/a	95.986	2.509	0.433	0.3	0.066	0.375	0.254	0.075	0.5885	1056.066	n/a
26		Moulavi bazar	n/a	98.198	1.002	0.16	0.042	0.022	0.087	0.356	0.131	0.5673	1020.22	Nil
27	Tullow	Bangura	2.11	95.482	2.564	0.661	0.146	0.146	0.194	0.309	0.664	0.5884	1049.2	Nil
28		Sangu	n/a	94.51	3.17	0.61	0.19	0.07	0.41	0.44	0.6	0.59	1058	n/a
29		Kutubdia	n/a	95.72	2.87	0.67	-	0.31	-	0.36	0.07	0.59	1041.66	Nil

## Natural Gas Tariff in Bangladesh

(As in June, 2023)

Taka/CM

Effective From	Power	Fertilizer	Industry	Commercial	Tea-Estate	Brick Field (Seasonal)	Captive Power	CNG Feed Gas	Domestic		
									Metered	Single Burner	Double Burner
1	2	3	4	5	6	7	8	9	10	11	12
01-Dec-77	0.18	0.18	0.32	0.46	-	-	-	-	0.46	16.00	30.00
02-Jun-79	0.22	0.22	0.57	0.60	-	-	-	-	0.57	20.00	36.00
07-Jun-80	0.27	0.27	0.64	0.67	-	-	-	-	0.64	22.00	40.00
07-Jun-81	0.33	0.33	0.98	0.99	-	-	-	-	0.71	25.00	45.00
01-Jul-82	0.37	0.37	1.09	1.09	-	-	-	-	0.95	35.00	65.00
30-Jun-83	0.41	0.41	1.27	1.27	-	-	-	-	1.20	45.00	80.00
27-Jun-84	0.46	0.46	-	1.60	-	1.80	-	-	-	-	-
30-Jun-85	0.55	0.55	1.53	1.92	-	2.16	-	-	1.44	60.00	100.00
28-Jun-86	0.67	0.67	1.84	2.31	-	2.77	-	-	1.58	66.00	110.00
18-Jun-87	0.88	0.88	-	3.00	2.55	-	-	-	1.98	80.00	130.00
01-Jul-88	1.01	1.01	2.12	3.45	2.94	3.18	-	-	-	92.00	150.00
01-Jul-89	1.17	-	2.47	3.88	-	-	-	-	2.30	100.00	170.00
01-Jul-90	1.34	1.16	2.84	4.47	3.38	-	-	-	2.64	115.00	195.00
01-Jul-91	1.38	1.20	3.01	4.74	3.55	3.75	-	-	-	-	-
01-May-92	1.52	1.32	3.31	-	3.89	4.12	-	1.52	2.90	126.00	215.00
01-Mar-94	1.68	1.46	3.64	5.21	4.00	4.53	-	1.52	-	160.00	250.00
01-Dec-98	1.93	1.68	4.20	6.00	4.60	5.20	3.05	1.52	3.35	185.00	290.00
01-Sep-00	2.22	1.93	4.83	6.90	5.29	5.98	3.50	1.52	3.85	210.00	330.00
01-Jan-02	2.33	2.03	5.07	7.25	5.55	6.28	3.68	1.52	4.04	275.00	350.00
01-Sep-02	2.47	2.12	4.94	7.77	4.94	7.77	3.53	1.52	4.24	325.00	375.00
15-Feb-23	-	-	-	-	-	-	-	15-02-23	-	-	-
01-Jul-04	2.56	2.19	5.13	8.07	5.13	8.07	-	-	4.45	340.00	390.00
01-Sep-04	-	-	-	-	-	-	3.66	-	-	-	-
01-Jan-05	2.61	2.24	5.23	8.23	5.23	8.23	3.73	-	4.59	350.00	400.00
25-Apr-08	-	-	-	-	-	-	-	9.97	-	-	-
01-Aug-09	2.82	2.58	5.86	9.47	5.86	-	4.18	-	5.16	400.00	450.00
12-May-11	-	-	-	-	-	-	-	18.00	-	-	-
19-Sep-11	-	-	-	-	-	-	-	23.00	-	-	-
01-Sep-15			6.74	11.36	6.45		8.36	27.00	7.00	600.00	650.00
01-Mar-17	2.99	2.64	7.24	14.2	6.93		8.98	30.00	9.1	750.00	800.00
01-Jun-17	3.16	2.71	7.76	17.04	7.42		9.62	32.00	11.2	900.00	950.00
01-Aug-17	3.16	2.71	7.76	17.04	7.42		9.62	32.00	9.10	750.00	800.00
18-Sep-18	3.16	2.71	7.76	17.04	7.42		9.62	32.00	9.10	750.00	800.00
01-Jul-19	4.45	4.45	10.70	23.00 17.00	10.70		13.85	35.00	12.60	925.00	975.00
01-Jun-22	5.02	16.00	11.98 11.78 10.78	26.64	11.93		16.00	35.00	18.00	990.00	1080.00
01-Feb-23	14.00	16.00	30.00	30.50	11.93		30.00	35.00	18.00	990.00	1,080.00

Source : Accounts Division, Petrobangla.

## Gas Fields in Production and Supply Scenario

(As in June, 2023)

Gas in MMscfd, Condensate in BBL per day

Company	Gas Field	Total Wells (No.)	No of Producing Wells	Production Capacity (MMscfd)	Production	
					Gas	Condensate
1. BGFCL	Titas	27	22	408	382	349
	Bakhrabad	10	6	35	33	39
	Habiganj	11	7	153	139	6
	Narsingdi	2	2	27	26	32
	Meghna	1	1	7	3	6
	<b>Sub-Total</b>	<b>51</b>	<b>38</b>	<b>630</b>	<b>583</b>	<b>432</b>
2. SGFL	Sylhet	8	3	7	6	19
	Kailashtila #1 (Silicagel)	4	3	29	1	5
	Kailashtila #2 (MSTE)	3			26	354
	Rashidpur	11	5	44	45	40
	Beanibazar	2	2	7	14	218
	<b>Sub-Total</b>	<b>28</b>	<b>13</b>	<b>87</b>	<b>93</b>	<b>635</b>
3. BAPEX	Saldanodi	4	3	2	3	2
	Fenchuganj	5	2	17	12	3
	Shahbazpur	5	5	85	60	6
	Semutung	6	1	1	1	0
	Sundalpur	2	1	8	8	0
	Srikail	4	4	38	32	127
	Begumganj	3	1	9	8	2
	Rupganj	1	-	-	0	0
	<b>Sub-Total</b>	<b>30</b>	<b>17</b>	<b>160</b>	<b>123</b>	<b>142</b>
<b>Sub-Total (1+2+3)</b>	<b>109</b>	<b>68</b>	<b>877</b>	<b>799</b>	<b>1,209</b>	
4. IOCs						
CHEVRON	Jalalabad	9	6	197	170	927
	Moulvibazar	9	2	14	15	0
	Bibiyana	26	26	1170	1039	5,998
TULLOW	Bangora	6	5	55	45	127
<b>Sub-Total</b>	<b>50</b>	<b>39</b>	<b>1436</b>	<b>1269</b>	<b>7,052</b>	
	Indigenous	159	107	2313	2068	8,261
5. RPGCL	RLNG	0	0	1000	856	
	<b>Grand Total (1+2+3+4+5):</b>	<b>159</b>	<b>107</b>	<b>3313</b>	<b>2923</b>	

Source: (1) MIS Report Jun-2023, Petrobangla (2) Production and Marketing Division, Petrobangla.

## Growth Trajectory of Customer

Year	TGTDCL	BGDCL	JGTDSL	PGCL	KGDCL	SGCL	TOTAL
Year	TGTDCL	BGDCL	JGTDSL	PGCL	KGDCL	SGCL	TOTAL
1989-90	330698	59937	32355	-	-	-	422990
1990-91	346473	68129	34968	-	-	-	449570
1991-92	364403	75028	37844	-	-	-	477275
1992-93	386226	87741	40556	-	-	-	514523
1993-94	414833	100402	43247	-	-	-	558482
1994-95	453922	112118	47285	-	-	-	613325
1995-96	493261	124159	51819	-	-	-	669239
1996-97	541767	140443	56918	-	-	-	739128
1997-98	588231	156294	61886	-	-	-	806411
1998-99	636415	175525	65966	-	-	-	877906
1999-00	684401	195374	70428	100	-	-	950203
2000-01	769000	214000	67000	1000	-	-	1051000
2001-02	833979	243887	72555	1558	-	-	1151979
2002-03	907946	271526	76923	3957	-	-	1259798
2003-04	979195	298060	83997	5714	-	-	1366412
2004-05	1041732	325089	90506	7684	-	-	1465013
2005-06	1110175	355958	98511	19254	-	-	1583898
2006-07	1239900	395508	107467	28898	-	-	1771773
2007-08	1350187	433887	117142	38607	-	-	1939823
2008-09	1458743	466355	127053	49522	-	-	2101673
2009-10	1556560	510954	137523	58405	-	-	2263442
2010-11	1563290	190596	149725	59086	369703	-	2332400
2011-12	1563307	206213	162615	59171	369703	-	2361009
2012-13	1565801	207938	177974	59725	369703	-	2381141
2013-14	1722712	318435	192943	96492	472602	-	2803184
2014-15	1897316	399540	209489	119483	533273	-	3159101
2015-16	2023005	489519	223784	128893	602074	3082	3470357
2016-17	2734546	492678	223715	128589	602074	3073	4184675
2017-18	2777343	491647	223668	128290	602085	4370	4227403
2018-19	2865907	491453	223673	128220	602189	6947	4318389
2019-20	2874848	490824	223663	128265	602245	8914	4328759
2020-21	2875813	490568	221459	126869	602338	2386	4319433
2021-22	2877609	490603	221461	126354	602375	2387	4320789
2022-23	2878757	490452	221467	126219	602385	2389	4321669

Source : Production and Marketing Division, Petrobangla.

## Natural Gas Reserve of Bangladesh

(As of 30 June, 2023)

Figure in BCF

SL. No.	Fields	Year of Discovery	Reserve Estimated By		GIIP	Proved+Probable (2P)	Cumulative Production June'2023	Remaining Reserve w.r.t 2P (1 <sup>st</sup> July, 2023)
			Company	Year				
<b>A. Producing</b>								
1	Titas	1962	RPS Energy	2009	8149	6367	5287	1080
2	Habiganj	1963	Gustavson	2010	3981	2787	2715	72
3	Bakhrabad	1969	RPS Energy	2009	1701	1232	887	345
4	Kailashtilla	1962	RPS Energy	2009	3610	2760	763	1997
5	Rashidpur	1960	RPS Energy	2009	3650	2433	700	1733
6	Sylhet/Haripur	1955	RPS Energy	2009	370	319	223	96
7	Meghna	1990	Gustavson	2010	122	101	82	19
8	Narshingdi	1990	RPS Energy	2009	369	277	244	33
9	Beani Bazar	1981	RPS Energy	2009	231	203	117	86
10	Fenchuganj	1988	RPS Energy	2009	553	381	174	207
11	Shaldanadi	1996	RPS Energy	2009	380	279	97	182
12	Shahbazpur	1995	BAPEX	2018	918	643	143	500
13	Semutang	1969	RPS Energy	2009	654	318	14	303
14	Sundalpur Shahzadpur	2011	BAPEX	2012	62	35	24	11
15	Srikail	2012	BAPEX	2012	240	161	139	22
16	Begumganj	1977	BAPEX	2014	100	70	13	57
17	Jalalabad*	1989	D and M	1999	1598	1598	1598	0
18	Moulavi Bazar	1997	Unocal	2003	1053	428	347	81
19	Bibiyana	1998	D and M	2008	8350	5755	5622	134
20	Bangura	2004	Tullow	2011	1198	714	547	167
<b>Sub-total A:</b>					<b>37288</b>	<b>26860</b>	<b>19735</b>	<b>7125</b>
<b>B. Non-Producing</b>								
21	Kutubdia	1977	HCU	2003	65	46	0	46
22	Bhola North1	2018	BAPEX	2018	622	435	-	435
23	Zakiganj	2021	BAPEX	2021	76	53	-	53
24	Illisha	2023	BAPEX	2023	200	140	-	140
<b>Sub-total B:</b>					<b>963</b>	<b>674</b>	<b>0</b>	<b>674</b>
<b>C. Production Suspended</b>								
25	Rupganj	2014	BAPEX	2014	48	34	1	33
26	Chattak	1959	HCU	2000	1039	474	26	448
27	Kamta	1981	Niko/Bapex	2000	72	50	21	29
28	Feni	1981	Niko/Bapex	2000	185	125	62	63
29	Sangu	1996	Cairn/Shell	2010	900	578	488	90
<b>Sub-total C:</b>					<b>2244</b>	<b>1261</b>	<b>599</b>	<b>662</b>
<b>Grand Total (A+B+C) in BCF</b>					<b>40495</b>	<b>28794</b>	<b>20334</b>	<b>8461</b>
<b>Grand Total (A+B+C) in TCF</b>					<b>40.49</b>	<b>28.79</b>	<b>20.33</b>	<b>8.46</b>

Note: \* The cumulative production of Jalalabad gas field have been shown as 2P reserve. Reserve re-evaluation of Jalalabad gas field is under way.

## Major Gas Transmission Pipelines and Flow Capacity

Company	Name of the Line and Route	Diameter (Inch)	Length (Km)	Oper. Pres. (Psig)	Max. Flow Capacity (MMscfd)	
GTCL	1. North – South Gas Transmission Pipeline	24	175.00	1000	400	
	2. Ashuganj-Bakhrabad Gas Transmission Pipeline	30	58.50	1000	400	
	Paschimanchal Gas Transmission Project					
	3.	(a) Bangabandhu Bridge Section	30	9.00	1000	450
		(b) Elenga-Nalka	24	28.50	1000	250
		(c) Nalka-Baghabari	20	35.50	1000	250
	4.	BeaniBazar-Kailashtila Gas Transmission Pipeline	20	18.00	1000	200
	5.	Habiganj-Ashuganj Gas Transmission Pipeline	30	54.00	1000	500
	6.	Rashidpur-Habiganj Gas Transmission Pipeline (2 <sup>nd</sup> Phase)	30	28.00	1000	500
	Nalka-Bogura Gas Transmission Pipeline:					
	7.	(a) Nalka - Hatikumrul	30	6.00	1000	400
		(b) Hatikumrul - Bogura	20	54.00	1000	250
	8.	Monohordi-Dhanua and Elenga-Bangabandhu Bridge East Gas Transmission Pipeline	30	51.00	1000	400
	9.	Bakhrabad – Demra Gas Transmission Pipeline	20	68.72	960	250
	10.	Bakhrabad – Chattogram Gas Transmission Pipeline	24	174.65	960	300
	11.	Ashuganj – Elenga Gas Transmission Pipeline	24	124.00	1000	350
	12.	Ashugonj – VS3 Gas Transmission Pipeline	20	2.00	1000	200
	13.	Ashuganj-Monohordi Gas Transmission Pipeline	30	37.00	1000	450
	14.	Dhaka Clean Fuel Project (GTCL Part)	20	60.00	1000	280
	15.	Bonpara-Rajshahi Gas Transmission Pipeline	12	53.00	1000	150
	16.	Hatikumrul-Ishardi-Bheramara Gas Transmission Pipeline	30	84.00	1000	400
	17.	Titas Gas Field (Location-G) to AB Pipeline Gas Transmission Pipeline	24	8.00	1000	250
	18.	Srikail-AB Gas Transmission Pipeline	20	1.50	1000	250
	19.	Bibiyana-Dhanua Gas Transmission Pipeline	36	137.00	1000	650
	20.	Bakhrabad-Siddhirganj Gas Transmission Pipeline	30	60.00	1000	450
	21.	Titas Gas Field (Location- C, B and A) Titas-AB Interconnection Pipeline	10	7.70	1000	150
22.	Gas Transmission Capacity Expansion-Ashuganj to Bakhrabad Gas Transmission Pipeline	30	61.00	1000	450	
23.	Bheramara-Khulna Gas Transmission Pipeline	20	163.03	1000	250	
24.	Titas Gas Field Well 23 and 24 (Sharail) to Khatihata and Well 25 and 26 (Malihata) to Khatihata Gas Transmission Pipeline	20	3.30	1000	250	
25.	Moheshkhali-Anwara Gas Transmission Pipeline	30	91.00	1000	500	
26.	Anwara-Fouzdarhat Gas Transmission Pipeline	42	30.00	1000	1200	

Company	Name of the Line and Route	Diameter (Inch)	Length (Km)	Oper. Pres. (Psig)	Max. Flow Capacity (MMscfd)
	27. Dhanua-Elenga-Bangabandhu Bridge – Nalka Gas Transmission Pipeline	30	67.00	1000	400
	28. Moheshkhali Zero Point (Kaladiar Char)-CTMS Gas Transmission Pipeline	42	7.00	1000	1200
	29. Moheshkhali-Anowara Parallel Gas Transmission Pipeline	42	79.00	1000	1200
	30. Chattogram-Feni-Bakhrabad Gas Transmission Pipeline	36	181.00	1000	800
TGTDCCL	31. Titas – Dhaka	14	81.80	1000	175
	32. Titas – Narshingdi	16	46.31	1000	265
	33. Narshingdi-Joydevpur	14	37.51	1000	220
	34. Narshingdi-Ghorasal	14	10.30	1000	220
	35. Habiganj-Ashuganj	12	57.75	1000	85
	36. Monohardi-Narshingdi	20	24.50	1000	300
	37. Monohardi – Kishorganj	4	35.00	1000	6
	38. Ashuganj V.S. #3-ZFCL	10	4.00	1000	95
	39. Elenga-Tarakandi	12	42.41	1000	80
	40. Dhonua – Mymensingh	12	56.70	1000	55
	41. Tarakandi-Jamalpur	8/6	21.00	1000	25
	42. Mymensingh – Netrokona	8/6	40.00	1000	60
	KGDCL	43. Chattogram Ring Main	24/20/16	57.00	350
44. KPM Spur		8	18.00	350	18
45. Chattogram – Rauzan		20	18.00	350	150
46. Semutang – Chattogram		10	56.00	150	10
47. Anowara CGS – KAFCO/CUFL		16	05.00	350	140
48. Anowara CGS – Shikalbaha		16	14.00	350	110
JGTDSL	49. MEZ CGS – B.R PowerGen	16	06.26	350	135
	50. MEZ CGS – Bashundhora	16	04.10	350	140
	51. Borotakia – MEZ CGS	16	09.00	1000	336
	52. Patibagh to Jalalpur	6	18	500	6.677
	53. Jalalpur to Sunamganj	4	13	500	3.256
	54. Kuchai to Chatak	6	39	500	8.057
	55. Kuchai to Chatak	8	42	1000	24.087
	56. Haripur to NGFF	8	43	500	8.867
	57. Devpur to Kumargaon	6	11	500	13.789
	58. Devpur to Kumargaon	8	11	1000	45.932
	59. Khadimnagar to Haripur	8	14	1000	40.616
	60. Kailashtila to Kuchai	8	13	500	22.120
	61. Kailashtila to Kuchai to Khadimnagar	10	19	1000	41.128
	62. Kailashtila-1 to Kailashtila-2	14	3.5	1000	107.334
	63. Munsibazar North South Pipeline to Luyani	6	10	500	26.245
	64. Fenchuganj North South Pipeline to Shahjalal Fertilizer Factory	8	2	1000	362.714

Company	Name of the Line and Route	Diameter (Inch)	Length (Km)	Oper. Pres. (Psig)	Max. Flow Capacity (MMscfd)
	65. Bibiana to Aushkandi	6	5	1000	16.670
	66. Bibiana to Parkul	20	9.8	1000	154.922
	67. Shahjibazar TBS to 86 MW power plant	8	3	1000	42.240
	68. Shahjibazar to Srimangal	6	40	500	9.823
	69. Devpur to Lakkatura	6	7	1000	20.970
	70. Lakkatura to Bangabandhu Hi-Tech Park	12	23	300	35.290
	71. Pirojpur to Rashidpur	8	10	150	5.955
	72. Rashidpur to Tajpur	6	15	150	2.263
	73. Luiani to Jury	6	26	150	2.684
	74. Luiani to Rajnagar	6	10	150	4.000
	75. NGFF to Longla to Barolekha	4	73	150	0.794
	76. Srimangal to Moulvibazar	6	26	150	2.993
	77. Srimangal to Bhairabganj Bazar	6	12	500	14.620
	78. Aushkandi to Nabiganj	6	8.6	500	2.210
	79. Parkul to Srihatta Economic Zone	12	3.0	150	21.720
	80. Nasratpur to Habiganj	4	10	150	1.440
	81. Nasratpur to Habiganj	6	10	150	4.030
	82. Srimangal to Alinagar	6	25	150	2.990
PGCL	83. Baghabari-Ishwardi	8"	82.00	140	4.60
	84. Hatukumrul-Nalka	8"	5.60	140	7
	85. Khorkhori-Nawdapara-Mollapara-Court-Vodra (Ruet Campus)	8"	33.35	140	5.50



Anowara Citygate Station, Chattogram of GTCL

## Category-wise Annual Gas Sales

(FY 1990-91 to FY 2022-23)

Gas volume in billion cubic feet (BCF)

Year	Production and Imported			Bulk Sales			Non Bulk Sales						Total Sales	UFG	Total Production
	Gas Production	RLNG	Total	Power	Fertilizer	Sub-Total	Industry	Domestic	Commercial	Tea/CNG	Brick Field	Sub Total			
1990-91	172.8		172.8	82.6	54.2	136.8	13.2	10.5	2.9	0.7	0.0	27.3	164.1	8.7	172.8
1991-92	188.5		188.5	88.1	61.6	149.7	13.4	11.6	2.9	0.7	0.2	28.8	178.3	10.2	188.5
1992-93	211.0		211.0	93.3	69.2	162.5	15.2	13.5	2.4	0.7	0.2	32.0	194.3	16.7	211.0
1993-94	223.8		223.8	97.3	74.5	171.8	20.3	15.4	2.9	0.7	1.1	40.4	211.0	12.8	223.8
1994-95	247.4		247.4	107.4	80.5	187.9	24.2	18.9	2.9	0.6	1.1	47.7	234.5	12.9	247.4
1995-96	265.5		265.5	110.9	91.0	201.9	27.3	20.7	3.0	0.7	1.0	52.7	253.6	11.9	265.5
1996-97	261.0		261.0	110.8	77.8	188.6	28.6	22.8	4.5	0.7	0.5	57.1	245.3	15.7	261.0
1997-98	282.0		282.0	123.6	80.1	203.7	32.3	24.9	4.6	0.7	0.4	62.9	266.2	15.8	282.0
1998-99	307.5		307.5	140.8	82.7	223.5	35.8	27.0	4.7	0.7	0.4	68.6	291.8	15.7	307.5
1999-00	332.4		332.4	147.6	83.3	230.9	41.5	29.6	3.9	0.6	0.4	76.0	306.5	25.9	332.4
2000-01	372.2		372.2	175.3	88.4	263.7	48.0	31.9	4.1	0.7	0.5	85.1	348.3	23.9	372.2
2001-02	391.5		391.5	190.0	78.8	268.8	53.6	36.7	4.3	0.7	0.5	95.8	364.1	27.4	391.5
2002-03	421.2		421.2	190.5	95.9	286.4	63.8	44.8	4.6	0.9	0.1	114.6	400.5	20.7	421.2
2003-04	452.8		452.8	*231.4	92.8	324.2	46.5	49.2	4.8	2.7	0.1	103.3	427.5	25.3	452.8
2004-05	486.8		486.8	*248.9	94.0	342.9	51.7	52.5	4.9	4.4	0.0	113.5	456.3	30.5	486.8
2005-06	527.0		527.0	*273.3	89.09	362.39	63.3	56.7	3.3	7.6	0.0	130.9	493.3	33.7	527.0
2006-07	562.2		562.2	*314.6	62.5	377.1	77.5	63.3	5.7	12.8	0.0	159.3	536.2	26.0	562.2
2007-08	600.9		600.9	*314.5	78.7	393.2	92.2	69.0	6.6	23.6	0.0	191.4	584.6	16.3	600.9
2008-09	653.8		653.8	*351.0	74.9	425.9	104.4	73.8	7.5	31.7	0.0	217.4	643.2	10.6	653.8
2009-10	703.6		703.6	*395.8	64.7	460.5	118.8	82.7	8.1	40.1	0.0	249.7	710.2	(6.6)	703.6
2010-11	708.9		708.9	*395.0	62.8	457.8	121.5	87.4	8.5	39.3	0.0	256.7	714.5	(5.6)	708.9
2011-12	743.7		743.7	*427.9	58.4	486.3	128.5	89.2	8.6	39.4	0.0	265.7	751.7	(8.0)	743.7
2012-13	800.6		800.6	*462.9	60.0	522.9	135.7	89.7	8.8	41.0	0.0	275.2	798.2	2.4	800.6
2013-14	820.4		820.4	*481.2	53.8	535.0	141.9	101.5	8.9	40.9	0.0	293.2	828.1	(7.7)	820.4
2014-15	892.2		892.2	*504.8	53.8	558.6	147.7	118.2	9.1	43.7	0.0	318.7	877.3	14.9	892.2
2015-16	973.2		973.2	*560.4	52.6	613.0	156.0	141.5	9.0	47.4	0.0	353.9	966.9	5.6	972.5
2016-17	969.2		969.2	*564.1	49.1	613.2	163.1	154.4	8.7	47.0	1.0	374.1	987.3	(19.6)	967.7
2017-18	968.7		968.7	*559.2	43.0	602.2	166.6	158.0	8.2	46.2	0.9	379.8	982.0	(13.9)	968.0
2018-19	961.7		961.7	*608.4	57.7	666.1	164.5	158.9	7.9	43.4	1.0	375.7	1041.8	18.3	1060.1
2019-20	882.6		882.6	*607.5	54.6	662.1	155.7	132.7	6.7	37.2	0	386.9	994.4	91.2	1085.6
2020-21	889		889	*594.8	64.7	659.5	181.8	134.2	6.0	36.1	0	358.0	1017.5	86.5	1104
2021-22	840		840	*577.7	60.4	638.1	191	127.8	6.0	38.4	0	363.3	1001.3	78.7	1080
2022-23	800		800	*553.7	50.1	603.8	178.8	100.6	5.8	43.4	0	492.9	932.4	70.6	1003

\* Including captive power, UFG : Un-accounted for gas (system loss plus pilferage/system gain)

Source : Production and Marketing Division, and MIS Report (June, 2023), Petrobangla.

## Payment to National Exchequer

Taka in Crore

Year	SD+VAT	DSL	Income Tax	Dividend	CD/VAT	Royalty	Corporate Surplus Fund	Total
1999-00	861.89	325.33	110.51	115.00	13.19	-	-	1425.92
2000-01	1104.92	250.38	114.21	105.86	9.30	-	-	1584.67
2001-02	1054.13	332.73	91.72	142.89	12.26	-	-	1633.73
2002-03	1557.64	339.59	145.68	149.98	68.47	-	-	2261.37
2003-04	1823.52	370.89	162.04	175.00	39.35	-	-	2570.80
2004-05	1848.10	368.11	253.06	200.00	59.62	-	-	2728.88
2005-06	1852.67	344.00	359.78	215.48	38.32	1.25	-	2811.50
2006-07	1880.15	414.55	366.51	250.00	32.92	1.26	-	2945.39
2007-08	1790.06	322.34	649.05	-	35.01	6.09	-	2802.54
2008-09	1931.35	353.30	750.76	171.53	55.47	.63	-	3263.03
2009-10	2006.47	333.12	1005.75	328.16	221.11	65.53	-	3960.13
2010-11	2162.55	320.90	1105.09	419.84	88.42	71.40	-	4168.20
2011-12	2666.81	298.93	937.89	387.58	147.06	100.06	-	4538.33
2012-13	2386.16	335.01	1425.72	839.58	459.64	140.47	-	5586.58
2013-14	3161.60	285.63	1185.42	446.08	144.30	154.91	-	5377.94
2014-15	3749.86	239.23	947.17	1100.90	142.54	24.55	-	6204.25
2015-16	4843.24	326.94	1552.38	690.09	74.42	34.52	-	7521.59
2016-17	9349.82	758.97	2020.65	908.91	125.89	25.24	-	13189.49
2017-18	12193.47	443.52	1944.00	843.58	230.67	67.37	-	15722.60
2018-19	7908.90	443.52	1942.40	806.39	351.65	32.61	-	11485.47
2019-20	2325.39	639.28	1865.52	854.86	321.07	71.42	4000.00	10077.47
2020-21	1253.93	597.10	1665.45	731.49	1855.41	67.77	4000.00	10071.15
2021-22	4888.65	915.31	2348.27	709.510	45.36	85.22	-	8992.32
2022-23	8650.66	500.50	3071.05	433.96	293.41	106.10	-	13055.68

Source: Accounts Division, Petrobangla

## Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

### Organogram Table

(As of 30 June, 2023)

Post Name	Grade	Manpower		
		Approved post	Filled In	Vacant
Chairman	Grade-1	1	1	-
Director	Grade-2,3	5	4	1
Secretary	Grade-2	1	-	1
General Manager	Grade-3	19	16	3
Deputy General Manager	Grade-4	43	31	12
Manager	Grade-5	54	33	21
Deputy Manager	Grade-6	74	12	62
Assistant Manager	Grade-9	113	77	36
	<b>Total</b>	<b>310</b>	<b>174</b>	<b>136</b>
UDA	Grade-13	72	31	41
Accounts Assistant	Grade-13	16	8	8
Communication Assistant	Grade-13	1	0	1
Purchase Assistant	Grade-13	1	1	0
Caretaker	Grade-13	2	0	2
Store Assistant	Grade-13	2	2	0
Foreman	Grade-13	2	0	2
Radio Operator	Grade-13	1	0	1
Security Assistant	Grade-13	6	3	3
Cataloger	Grade-13	1	0	1
Medical Assistant	Grade-13	2	1	1
Transport Assistant	Grade-13	1	1	0
Office Assistant/Computer Operator	Grade-13	0	1	0
Stenographer	Grade-13	0	3	0
Steno Typist	Grade-14	6	0	6
Air Condition Mechanic	Grade-14	1	1	0
Electrician	Grade-14	3	1	2
Cameraman	Grade-14	1	1	0
Sr. Driver	Grade-14	0	15	0
Draftsman	Grade-15	3	1	2
LDA-Cum-Typist/Computer Typist	Grade-16	36	18	18
Telephone Operator	Grade-16	2	1	1
Receptionist	Grade-16	2	1	1
Driver	Grade-16	46	0	46
Carpenter	Grade-18	1	0	1
Plumber	Grade-18	2	1	1
Dispatch Rider	Grade-18	1	1	0
Store Attendant	Grade-18	2	1	1
Bus Helper	Grade-20	2	0	2
Office Support Staff	Grade-20	88	28	60
Mali	Grade-20	2	1	1
Security Guard	Grade-20	25	3	22
Sweeper	Grade-20	12	0	12
	<b>Total</b>	<b>342</b>	<b>125</b>	<b>236</b>
	<b>Grand Total</b>	<b>652</b>	<b>299</b>	<b>372</b>

Source: Administration Division and Establishment Division, Petrobangla

# Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

## Statement of Financial Position

As at 30 June, 2023

Particulars	Amount in Taka	
	30 June, 2023	30 June, 2022
<b>Assets</b>		
<b>Non-current assets</b>		
Property, plant and equipment	292,514,407	311,429,472
Minor capital project (Capital work-in-progress)	33,555,135	33,255,135
<b>Total Non-current assets</b>	<b>326,069,542</b>	<b>344,684,607</b>
<b>Investments</b>		
Investment in subsidiaries	4,196,580	4,196,580
Investment in FDR accounts	40,441,090,211	58,583,672,439
Investment in shares	9,980,280	9,056,180
<b>Total Investments</b>	<b>40,455,267,071</b>	<b>58,596,925,199</b>
<b>Current assets</b>		
Group current account	13,634,273,010	14,548,337,903
Accounts receivable	206,649,384,338	68,014,831,969
Advances, deposits and prepayments	1,395,166,782	1,373,183,470
Loans to employees	677,019,934	575,216,275
Current tax assets	65,403,290,125	37,324,616,960
Cash and cash equivalents	46,513,444,867	22,657,317,342
<b>Total current assets</b>	<b>334,272,579,056</b>	<b>144,493,503,919</b>
<b>Total assets</b>	<b>375,053,915,669</b>	<b>203,435,113,725</b>
<b>Equity and liabilities</b>		
<b>Capital and reserves</b>		
Paid-up capital	1,500,000	1,500,000
Capital reserve	1,324,172,884	1,324,172,884
Unrealized gain/ (loss) on investment	(8,501,720)	(9,425,820)
Revenue reserve	(144,466,869,537)	(161,677,976,260)
<b>Total Capital and reserves</b>	<b>(143,149,698,374)</b>	<b>(160,361,729,196)</b>
<b>Funds for specific use</b>		
Gas development fund	26,549,990,014	40,561,013,114
Energy security fund	1,528,142,974	1,765,931,896
Other funds	3,244,864,301	2,785,204,937
<b>Total Funds for specific use</b>	<b>31,322,997,289</b>	<b>45,112,149,947</b>

Particulars	Amount in Taka	
	30 June, 2023	30 June, 2022
<b>Long term liabilities</b>		
Long-term borrowings	39,275,956	39,275,956
Other long-term liabilities	144,135,509	130,529,206
Deferred tax liabilities	38,267,313	40,105,899
<b>Total long term liabilities</b>	<b>221,678,778</b>	<b>209,911,061</b>
<b>Current liabilities</b>		
Accounts payables	470,350,689,366	309,850,270,090
Accruals and provisions	16,308,248,610	8,624,511,823
<b>Total current liabilities</b>	<b>486,658,937,976</b>	<b>318,474,781,913</b>
<b>Total equity and liabilities</b>	<b>375,053,915,669</b>	<b>203,435,113,725</b>
<b>Contingent Liabilities ( Annexure-III)</b>	<b>186,001,500,000</b>	

*M M Rahman*

**A K M Mizanur Rahman**  
Director (Finance)  
Petrobangla

*E Hossain*

**Mohammad Elius Hossain**  
External Director, Petrobangla &  
Joint Secretary  
Energy & Mineral Resources Division

Signed in terms of our separate report of even date annexed.

Signed by:  
*Md. Aftab Uddin Ahmed*  
**Md. Aftab Uddin Ahmed FCA**  
Senior Partner  
ICAB Enrolment No. 804  
DVC: 2409090804AS841140



*Hedayet Ullah*

Signed by:  
**Hedayet Ullah FCA**  
Senior Partner  
ICAB Enrolment No. 0281  
DVC: 2409090281AS119679



## Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

### Statement of Profit or Loss and Other Comprehensive Income

For the year ended 30 June, 2023

Particulars	Amount in Taka	
	01 July, 2022 to 30 June, 2023	01 July, 2021 to 30 June, 2022
<b>Income</b>		
Sales proceeds from IOC gas and condensate	56,005,377,930	47,967,657,838
Sales proceeds of LNG	316,490,323,065	163,370,892,496
Other operating income from LNG operation	2,365,939,752	2,436,534,722
Other operating income from PSC operation	2,289,642,210	2,359,649,596
Petrobangla charge	1,592,432,838	1,572,723,229
Transport fare recovery	639,769	581,928
Miscellaneous income	9,350,539	2,582,276
<b>Total Income</b>	<b>378,753,706,102</b>	<b>217,710,622,085</b>
<b>Expenditure</b>		
Cost of sales of gas and condensate	70,911,225,007	64,279,049,786
Cost of LNG cargo and re-gasification	352,478,916,345	405,627,688,293
Personnel expense	1,355,206,766	1,054,958,085
Professional services	2,267,955	2,051,863
Promotional expense	4,420,001	7,436,643
Power expense	5,696,166	6,820,902
Communication expense	1,184,236	1,632,070
Transport expense	38,853,672	38,414,843
Occupancy expense	34,482,336	37,985,816
Administrative expense	3,670,572	5,159,261
Depreciation	20,827,901	25,722,560
Miscellaneous expense	26,879,086	2,878,190
LNG Finance cost	261,645,842	-
<b>Sub-Total Expenditure</b>	<b>425,145,275,885</b>	<b>471,089,798,312</b>
Petrobangla actual cost recovery	(170,000,000)	(140,000,000)
<b>Total Expenditure</b>	<b>424,975,275,885</b>	<b>470,949,798,312</b>
<b>Operating profit/(loss)</b>	<b>(46,221,569,782)</b>	<b>(253,239,176,227)</b>
Subsidy received from govt. for LNG operation	63,151,225,000	60,000,000,000
Retained earning received from T&D Companies	9,622,977,377	3,283,281,302
<b>Operating Profit/Loss after subsidy</b>	<b>26,552,632,595</b>	<b>(189,955,894,925)</b>
<b>Non-operating income</b>		
Finance income/(expenses)	1,354,054,312	2,258,526,822
Rental income	61,637,786	27,402,201
<b>Total Non-Operating Income</b>	<b>1,415,692,098</b>	<b>2,285,929,023</b>
<b>Profit/(Loss) before Tax</b>	<b>27,968,324,693</b>	<b>(187,669,965,902)</b>
<b>Income tax expenses</b>		
Current Tax	(7,691,289,840)	(2,148,392,200)
Deferred tax income/(Expense)	1,838,586	7,573,251
<b>Net surplus/(deficit)</b>	<b>20,278,873,438</b>	<b>(189,810,784,851)</b>

Particulars	Amount in Taka	
	01 July, 2022 to 30 June, 2023	01 July, 2021 to 30 June, 2022
<b>Other Comprehensive Income</b>		
Unrealised gain/(loss) on investment in share	924,100	1,478,560
Total comprehensive income/(loss) for the year	<b>20,279,797,538</b>	<b>(189,809,306,291)</b>
<b>Appropriation account</b>		
Un-appropriated surplus brought forward	(162,995,644,879)	25,666,700,359
Prior year's adjustment	2,539,521	66,589,621
Prior year's adjustment for PSC	(2,831,914,517)	1,081,849,992
Net profit/(loss) after tax for the year	20,278,873,438	(189,810,784,851)
	<b>(145,546,146,437)</b>	<b>(162,995,644,879)</b>
Fund transfer to govt.	-	-
	<b>(145,546,146,437)</b>	<b>(162,995,644,879)</b>

*A K M Mizanur Rahman*

A K M Mizanur Rahman  
Director (Finance)  
Petrobangla

*Mohammad Elius Hossain*

Mohammad Elius Hossain  
External Director, Petrobangla &  
Joint Secretary  
Energy & Mineral Resources Division

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ICAB Enrolment No. 804  
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*Hedayet Ullah*

Signed by:  
Hedayet Ullah FCA  
Senior Partner  
ICAB Enrolment No. 0281  
DVC: 2409090281AS119679



# Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

## Statement of Cash Flows For the year ended 30 June, 2023


Particulars	Amount in Taka	
	01 July, 2022 to 30 June, 2023	01 July, 2021 to 30 June, 2022
<b>A. Cash flows from operating activities</b>		
Operating profit/(loss)	26,552,632,595	(189,955,894,925)
<b>Adjustment for non-cash item:</b>		
Depreciation	20,827,901	25,722,560
Adjustment in revenue reserves	(3,067,766,715)	830,637,777
<b>Changes in working capital:</b>		
Increase/decrease in accounts receivables	(138,634,552,370)	(1,806,117,134)
Increase/decrease in advances, deposits and prepayments	(21,983,311)	(368,915,778)
Increase/decrease in loans and advances to employees	(101,803,659)	(148,889,941)
Increase/decrease in accounts payable	160,500,419,276	142,762,742,371
Increase/decrease in accruals and provisions	(7,552,503)	(18,218,547)
Increase/decrease in other long-term liabilities	13,606,303	1,402,807
Advance income tax	(28,078,673,165)	(14,598,153,509)
Income tax paid for 2021-22	(550)	(33,613,596)
<b>Net cash used in operating activities (A)</b>	<b>17,175,153,801</b>	<b>(63,309,297,916)</b>
<b>B. Cash flows from investing activities</b>		
Acquisition of property, plant and equipment	(2,212,836)	1,286,931
Sell of land	-	-
Encashment of/(Investment in) FDR	18,142,582,228	31,115,130,862
Non-operating income	1,415,692,098	2,285,929,023
<b>Net cash provided by investing activities (B)</b>	<b>19,556,061,490</b>	<b>33,402,346,816</b>
<b>C. Cash flows from financing activities</b>		
Funds for specific use	(13,789,152,658)	(54,379,464,971)
Group current account	914,064,893	208,400,529
<b>Net cash provided by financing activities (C)</b>	<b>(12,875,087,765)</b>	<b>(54,171,064,441)</b>
<b>D. Net changes in cash and cash equivalents (A+B+C)</b>	<b>23,856,127,526</b>	<b>(84,078,015,541)</b>
<b>E. Opening cash and cash equivalents</b>	<b>22,657,317,342</b>	<b>106,735,332,883</b>
<b>F. Closing cash and cash equivalents</b>	<b>46,513,444,867</b>	<b>22,657,317,342</b>

  
A K M Mizanur Rahman  
Director (Finance)  
Petrobangla

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Mohammad Elius Hossain  
External Director, Petrobangla &  
Joint Secretary  
Energy & Mineral Resources Division

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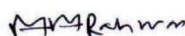
## Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

### Statement of Changes in Equity

For the year ended 30 June, 2023

Amount in Taka

Particulars	Paid-up capital	Capital reserve	Unrealised gain / (loss) on investment	Revenue reserve	Total
Balance as on 1 <sup>st</sup> July, 2022	1,500,000	1,324,172,884	(9,425,820)	(161,677,976,260)	(160,361,729,196)
Transfer from General Reserve (PSC)	-	-	-	(238,391,719)	(238,391,719)
Unrealized gain/loss on Investment in shares	-	-	924,100	-	924,100
Prior year's adjustment	-	-	-	2,539,521	2,539,521
Prior year's adjustment for PSC	-	-	-	(2,831,914,517)	(2,831,914,517)
Net profit/(loss) after tax for the year	-	-	-	20,278,873,438	20,278,873,438
<b>Balance as on 30 June, 2023</b>	<b>1,500,000</b>	<b>1,324,172,883</b>	<b>(8,501,720)</b>	<b>(144,466,869,537)</b>	<b>(143,149,698,374)</b>




A K M Mizanur Rahman  
Director (Finance)  
Petrobangla



Mohammad Elius Hossain  
External Director, Petrobangla &  
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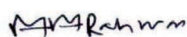
# Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)

## Statement of Changes in Equity

For the year ended 30 June, 2022

Amount in Taka

Particulars	Paid-up capital	Capital reserve	Unrealised gain / (loss) on investment	Revenue reserve	Total
Balance at 01 July, 2021	1,500,000	1,324,172,884	(10,904,380)	27,302,170,814	28,616,939,318
Transferred to/ used from general reserve (PSC)	-	-	-	(317,801,836)	(317,801,836)
Prior year's adjustment	-	-	-	66,589,621	66,589,621
Prior year's adjustment for PSC	-	-	-	1,081,849,992	1,081,849,992
Unrealized gain/ (loss) on investment in share	-	-	1,478,560	-	1,478,560
Net profit/(loss) after tax for the year	-	-	-	(189,810,784,851)	(189,810,784,851)
Balance at 30 June, 2022	1,500,000	1,324,172,884	(9,425,820)	(161,677,976,260)	(160,361,729,196)



A K M Mizanur Rahman  
Director (Finance)  
Petrobangla



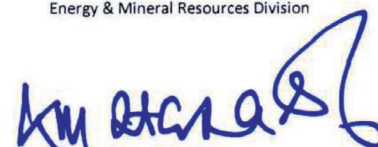
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# Publication Committee

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<b>Convener</b>	<b>A K M Mizanur Rahman</b> Director (Finance), Petrobangla
<b>Member</b>	<b>Engr. Md. Kamruzzaman Khan</b> Director (Operation and Mines), Petrobangla
<b>Member</b>	<b>Ruchira Islam</b> Secretary (Senior General Manager), Petrobangla
<b>Member</b>	<b>Md. Imam Uddin Sheikh</b> General Manager (Production and Marketing), Petrobangla
<b>Member</b>	<b>Nasima Khanam</b> General Manager (Planning and Monitoring), Petrobangla
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