

Restructuring and Overhauling Gas Supply Chain Management

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Ensuring a sustainable supply of primary fuel (gas, coal, and fuel oil) is a major challenge for Bangladesh's energy and power sector. Since 2000, successive governments have failed to make a political decision to exploit discovered coal resources buried at mineable depths. The governments have also failed to carry out the required exploration of petroleum resources in onshore frontier areas. The huge potential of the vast offshore in the Bay of Bengal remains virtually unexplored. Despite having significant potential, no mentionable headways could be made to exploit renewable energy. Ignoring primary fuel development, the governments ventured to import primary fuel from the global market which often gets volatile for regional and global geopolitics. Consequently, Bangladesh possessing a 28,089MW grid-connected power generation capacity struggles to generate consistently 14,000MW. 1,500-2,000MW average deficit causes nationwide power load-shedding. The reasons are attributed to the alarming depletion of discovered gas reserves and fund shortage to import primary fuel from the global market. Higher generation costs than power tariffs have turned the BPDB bankrupt. It owes huge outstanding payments to IPPs for power it purchased, for gas supplied by Petrobangla, and for liquid fuel that BPC supplied. Petrobangla and BPC in turn also have huge outstanding payments to their suppliers. Policies and strategies are responsible for this mess. However, one of the major failures is the lack of competence of Petrobangla and its companies in exploring and exploiting domestic fuel re-

sources. It is not that Petrobangla and its thirteen companies engaged in energy and mineral resources system management do not possess quality manpower. The structure of these entities and the environment is such that human resources cannot make the required contributions. Incompetent bureaucracy dominates and dictates. An evil nexus of political leadership and business syndicate frustrates the honest and sincere endeavors of company executives. Petrobangla company officials suffer from discrimination in salary and benefits compared with power companies under the same ministry. This has led to a massive brain drain from Petrobangla companies. Petrobangla companies are supposed to be administered by the provisions of the Companies Act and a properly constituted board of directors. However, the company boards are exclusively dominated by officials of the ministry who hardly have any knowledge of the energy sector. The top positions of Petrobangla including the Chairman and two key directors are exclusive domain of the ministry. Petrobangla and companies need urgent restructuring. The Petrobangla Act needs reviewing. The intrusion of outsiders in the governance and management of the sector must be done away with.

Petrobangla and Companies

Bangladesh Oil, Gas and Mineral Corporation (BOGMC) was launched for the exploration and development of petroleum and mineral resources by the Presidential Ordinance on 26 March 1972. Another presidential ordinance 120 issued on 27 September 1972 cre-

ated the Bangladesh Mineral Development Corporation (BMDC) for the exploration and development of mineral resources. BOGMC was later restructured as Bangladesh Gas and Oil Corporation (BOGC). A Presidential Order dated 22 August 1974 BOGC was named Petrobangla. Another Presidential Order dated 28 November 1974 abolished the Oil and Gas Development Corporation (OGDC) Ordinance 1961 and all assets and liabilities of OGDC were vested in Petrobangla. An Ordinance dated 13 November 1976 created Bangladesh Petroleum Corporation (BPC) for importing crude oil, refining, and marketing petroleum derivatives. Finally, another ordinance issued on 11 April 1985 merged BOGC and BMDC into Bangladesh Oil, Gas and Mineral Corporation (Petrobangla). It is now operating as an SOE responsible for the exploration, development, transmission, and supply of petroleum and mineral resources, importing LNG. Petrobangla gas supply chain management, operation of coal mine and hard rock mine through its 13 companies incorporated under the Companies Act.

Petrobangla Companies

- Exploration & Production: Bangladesh Petroleum Exploration Company (BAPEX)
- Production Companies: Bangladesh Gas Fields Company Limited (BGFCL) and Sylhet Gas Fields Company Limited (SGFL)
- Transmission Company: Gas Transmission Company Limited (GTCL)

- **Transmission and Distribution Companies:** Titas Gas Transmission and Distribution Company Limited (TGTDC) and Jalalabad Gas Transmission and Distribution System Limited (JGTDSL)
- **Distribution Companies:** Karnafully Gas Distribution Company Limited (KGDCL), Bakhraabad Gas Distribution Company Limited (BGDCL), Poschimanchol Gas Company Limited (PGCL) and Sundarban Gas Distribution Company Limited (SGDCL)
- **Mining Companies:** Barapukuria Coal Mining Company Limited (BCML), Madhyapara Granite Mining Company Limited (MGMCL)
- **LPG, CNG and LNG Company:** Rupantorito Prakritik Gas Company Limited (RPGCL)

BOGC (Petrobangla) and BMDC were envisioned as grade-one corporations headed by the chief executives of the rank and status of full secretary reporting directly to the head of the government. However, following the government change in 1975, the important corporation has been degraded to a lower category. Since its inception, no officer starting a career in gas companies could ever become the Chairman of Petrobangla. Now senior Joint Secretaries and Additional Secretaries are posted as Chairmen. During the tenure of the previous government, an amendment of the Petrobangla Act created a provision that the Chairman of Petrobangla and two key directors of Petrobangla will always be reserved for officials of EMRD. The interim government may review this provision and amend it. Given the importance of Petrobangla for ensuring sustainable energy security, Petrobangla should also be upgraded.

Companies of Petrobangla are incorporated under the Companies Act. These are supposed to be managed and administered as autonomous bodies by a properly constituted board of directors. During the previous regime, the company board of directors became the exclusive domain of the officials of EMRD. The interim government must review this and restructure the board with competent energy sector experts and professionals. Members engaged in the board



of directors under political considerations must also be removed.

Most companies are licensees of the Bangladesh Energy Regulatory Commission (BERC). BERC should enforce and ensure compliance with acts, policies, and regulations by all Petrobangla companies. This will ensure check and balance in the management and operation of the gas supply chain.

How Absence of Governance Created Crisis?

Exclusively bureaucracy-dominated energy sector management led to the failure of mining own coal resources for over two and a half decades. Since 2005, the coal policy has not been approved. Extracting coal from four discovered mines at Phulbari, Dighipara, Khalaspir, and Jamalganj are in suspended animation. Barapukuria being mined using a long-wall top caving method cannot even meet the demand of three mine-mouth power plants. Instead of mining domestic coal, the government opted to develop several imported coal-based large power plants. For reasons like volatile global market prices and issues of transportation and operations of coal-based power plants often struggle to deliver at full capacity. Bangladesh signed a lopsided contract with Adani Group to import coal. Experts observed that up to 10,000MW of coal-based power can be generated if exploited using off-the-shelf proven technologies. The interim government may review the coal policy and get the Scheme of Development

vetted by accredited international consultants. If necessary, the BMDC like a separate holding company can be created for mining coal.

Why BAPEX Could Not Grow as Expected?

The government remained unsure whether to develop BAPEX as a drilling company or a drilling management company like Chevron, Shell, Exxon Mobil, ONGC, Petronas, or CNCC. People talked about strengthening BAPEX but neither technologically nor financially BAPEX was strengthened and given the required freedom to work. Petroleum exploration in this part of the world has a long history. Many excellent executives worked in the upstream sector of the gas supply chain. Many retired Petrobangla executives are in Bangladesh, and few from abroad are also willing to contribute. In that case, why the BAPEX board cannot have two or more former executives with a proven track record? Inappropriate policy and misguided strategies led to Bangladesh virtually restrict its exploration campaign from 2000-2024 to the bare minimum. BAPEX alone policy for onshore exploration also backfired. BERC created a Gas Development Fund for the exclusive use of exploration. BAPEX should have allotted this fund as a grant. But GDF has been misused. Keeping the BAPEX's rig underutilized, foreign companies were allowed to drill development wells at higher cost. The interim government must also examine why GAZPROM was engaged in the BAPEX domain. Why BAPEX could not

be relied on to work at Bhola? Why did the 108-well drilling project of BAPEx fail?

The interim government must also examine what went wrong with offshore exploration. Why was the multi-client survey delayed? There was a definite ill motive of a vested quarter. The failure in the exploration of gas resources paved the way for LNG import. The proven gas reserves were depleted massively. Even adding LNG import Petrobangla cannot meet the present gas demand. The present demand for gas is 4,200 MMCFD. While the maximum supply of gas is 3,000-3,100 MMCFD. That too can only happen if two FSRUs can operate in tandem. For chronic gas shortage about 3,500-4,000MW of gas-based power generation capacity remains idle, most fertilizer factories remain shut down, and most industries including export-oriented industries suffer from the gas crisis. The government must restructure BAPEx following the footprints of other international E&P companies. If Necessary BGFCL and SGFL can be merged into a single large corporate body of BAPEx, given autonomy to operate to grow as IOC.

LNG Import Needs Care and Attention

Given the exponential growth of gas demand and lack of locally discovered resources, importing LNG was not a bad decision. However, due to the failure of EMRD and Petrobangla, it took 8 long years from 2010-2018 to launch the first FSRU at Maheshkhali. Bangladesh talked about several FSRUs and some land-based terminals. A lot of time and effort was wasted. Some terminals were feasible. But the government with ill motives canceled almost all the projects except the land-based terminal at Matarbari. RPGCL, the project company, is struggling with the project as EMRD failed to allocate the land for the project to be implemented on an EPCM basis. The interim government must review LNG import initiatives as a favorable quarter monopolized the work.

Gas Transmission Needs Automation

GTCL as the lone midstream company



responsible for evacuation of gas and LNG from upstream facilities and delivery to local distribution companies has grown in all proportion over the last two decades. Its area of operation extends from Moheshkhali in the South-east to Rangpur in the Northwest, Beanibazar in the North to Khulna in the South. Without ensuring the required gas supply, the GTCL had to invest through its nose in pipelines and associated infrastructures. Some of its pipelines and compressor stations are not being utilized and virtually turned into white elephants. EMRD and Petrobangla must be asked what made them instruct GTCL to develop such huge facilities to benefit business mafia syndicates. The interim government may examine why so many unnecessary infrastructures were built. GTCL was created to evacuate gas from upstream production facilities through custody transfer meters and deliver gas only to LDCs through Custody Transfer meters. A smart GTCL was envisioned for operating the gas grid network through SCADA carrying out regular onstream pigging and occasional Intelligent Pigging. But over the past 15 years, GTCL had to implement many infrastructure projects to benefit whom?

Gas Distribution Companies Have Grown Messy?

Gas distribution companies, specifically TGTDC, BGDCL, and KGDCL have grown messy with hundreds and thousands of illegal connections, theft, pilferage, and misuse of gas. The leakage

of distribution networks led to many fatal accidents. Interim Government at least checks the system operation of the three distribution companies and assesses what has gone wrong since 2010. Why does the company board having even a secretary and additional secretaries could not improve operations? Why do not distribution companies introduce digital mapping and telemetry? In the present situation, managing the illegal use of gas, at least in TGTDC, has become almost impossible. It should also be assessed why all consumers could not provide pre-paid meters by now. Who benefitted from the non-transparent procurement process?

Petrobangla and Companies Need Appropriate Pay Structure

Compared with power companies the salary and benefits of Petrobangla and companies are very low. This acts as an impediment to companies attracting and retaining quality young officers. The pay structure has been reviewed for a long time. Petrobangla and companies need a forward-looking new generation. Will suggest reviewing the pay structure of all companies and arranging a performance-based salary structure for the companies.

Internal government cannot clear all the mess but can address some key issues and set the tone for a transparent and accountable process.

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