## **Cover** Article

## Sole and the state of the second s **Contingency Plan To Confront Gas Crisis**

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t's a good sign the Energy and Mineral Resources Division (EMRD) and Petrobangla have started realizing the depth and diversity of the crisis in the energy and power supply chain that started deepening a few years back. They now have taken up massive plans for expediting gas exploration campaigns. Various initiatives have also been undertaken to increase the import of LNG to overcome the deficit. It is extremely difficult to comprehend why the EMRD and Petrobangla realize the fact that for various global developments, it is almost impossible for Bangladesh with a fragile economy to develop as an exclusively imported fuel-based economy. Geographical constraints restrict Bangladesh from setting up enabling infrastructure for importing fuel. The volatile global fuel market due to various geopolitical developments makes it extremely difficult to absorb price shocks. Bangladesh with over 29,000MW installed power generation capacity (grid and nongrid combined) struggles to meet the average power demand of 14,000MW. In a high summer, the demand increases to 16,500MW. The main reason is a chronic crisis of primary fuel supply. The gas production which peaked at 2,800 MMCFD has now depleted to 2,200 MMCFD. Import of LNG which started in 2018 can now supply about 1,000 MMCFD. The system has over 14,000MW gasbased power generation capacity. The power sector needs about 1,800-2,000 MMCFD gas to keep all its gas-based power plants going. However, Petrobangla is not able to supply more than 1,250-1,300 MMCFD after meeting the demands of all other end users. The other options are coal and Liquid fuel. However, the government does not have the required foreign currency for importing fuel as per demand. Before 2026 there is no opportunity for increasing LNG import. In such a situation Petrobangla has just an-

nounced its new plan for augmenting the production of gas from its sources. This write-up will objectively discuss that.

## Petrobangla Actions and Plans

Excelerate USA and Summit Group Bangladesh operate two Floating Storage and Regasification Units (FSRUs) anchored at Maheshkhali, Cox's Bazar. One went to Singapore for dry docking and returned after overhauling and increasing its capacity. The other one is now in Singapore for overhauling and will return to service in March. These two together can supply 1,100 MMCFD RLNG to the gas grid. With local production, it will be possible to supply 3,000-3,100 MMCFD from March 2024. But the demand may reach beyond 4,000 MMCFD. Petrobangla has signed agreements with a Qatari and an Omani company to supply LNG under long-term contracts to be effective from 2026. Contracts have also been signed with Excelerate Energy and Summit Group for importing and supplying LNG from 2026. Summit may set up a 3rd FSRU at Maheshkhali by 2026. Hence subject to availability of dollars, gas supply may increase by at least 600 MMCFD from 2026. The government is also in discussion with Excelerate Energy for importing LNG using its proposed deep water LNG infrastructure off the coast of Kuakata and a long subsea pipeline. The government is also closing negotiations with two initiatives for importing RLNG through pipelines from India. Given the past proven records and present Petrobangla capability, there are considerable concerns that all the above initiatives will succeed. Petrobangla sources said their RLNG capacity will be 3,100-3,600 MMCFD after the starting operation of the Landbased LNG terminal expected by 2031.

After abandoning an over-ambitious immature plan of 108 wells drilling, BAPEX is now working on a 48-well drilling program for what Petrobangla estimates adding 618 MMCFD new gas by 2025. In the last two years, only 9 of the 21

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planned wells could be drilled. Petrobangla insists that it will still be possible to complete the project by 2025. For these, they have signed contracts with Gazprom, Ariel, and Sinopec in addition to BAPEX works. In Bangladesh reality, it will be a daunting task. Even if it is possible, it is highly unlikely these would add 618 that MMCFD. Still, it will be a success if Petrobangla can retain its present level of production. In a recent program, Petrobangla announced a plan to drill 100 wells by 2028. For obvious reasons, it will be a

tall task and possibly extremely difficult to achieve. In any case gas supply situation will remain diabolic in 2024 and 2025. Hope EMRD realizes that the BAPEXonly policy for onshore exploration proved counterproductive. BAPEX neither has the required gualified and skilled manpower to keep more than two exploration rigs in operation simultaneously nor can organize the required manpower within a short time. Bangladesh will need to engage IOCs through PSCs by updating its MPSC for onshore exploration.

> Moreover, Petrobangla will need enough experienced skilled manpower to deal with IOCs.

## How Summer Challenge Can Be Confronted?

BPDB has already mentioned that power demand during high summer may peak at 16,500 MW. The Power Grid Company and the distribution utilities have mentioned that despite constraints the power supply chain can manage that demand if generation and supply can be made. But the issue is the gas supply shortage. The system has over



14,000 MW gas-based power generation capacity. But with 1,300 MMCFD gas, a maximum of 6,500-7,000MW can be generated. If coal-based plants get coal supply on time, it will be possible to generate up to 5,000MW coal power. Add 2,400MW power through import including Adani Power. These add to 14,000-15,000 MW. Still, at least 3,500-4,000 MW of liquid fuel-based power generation will be required. Bangladesh Power Development Board (BPDB) is struggling with payments of outstanding bills for power it purchases from the IPPs and Adani Group. It also does not get enough money on time to pay for the gas it purchases from Petrobangla. A similar situation prevails with Petrobangla buying LNG from suppliers. Issuing bonds BPDB has taken some contingent actions. However, the Finance Ministry needs to pay the subsidy to enable BPDB and Petrobangla to meet their obligations.

It is encouraging that the government has decided to invite a PSC bidding round for offshore from March 2024. A smart group of officials is expected to manage bidding, evaluate offers, and conclude win-win PSCs in the shortest possible time. It will take till 2030 to bear any fruit from offshore.

In such a crisis no activity for mining coal is being observed. Awami League like all previous terms included mining of coal in its election pledge. All it needs change of mindset of wrongly informed policymakers. Mining own coal must be considered a top priority national project in the prevailing circumstances. PGCB will be expedited for evacuating power from the Rooppur nuclear plant by the end of 2024 partially and completely by the end of 2025. In the meantime, the power grid must also become flexible for evacuating the grid-connected solar power.

In such situations, strict austerity measures, efficiency in use, and elimination of losses and wastages can bring some comfort. We hope the government after 15 years in office in three consecutive terms realizes what went wrong and where. Based on that they must focus on professional management for keeping the situation under control. However, people must also cooperate as all will suffer from the expected power and energy crisis in the ensuing summer.

We also hope that the works of *Energy Consultant* 

