

Gas Deficit May Widen Further Until 2029

Mollah Amzad Hossain
Khondkar Abdus Saleque

Bangladesh faces a worsening gas crisis, sparking strategic initiatives by the Energy Division and Petrobangla to stabilize supply, including exploration, Bhola gas integration, foreign investment, and LNG import expansion. Despite efforts like drilling 150 new wells by 2028, progress is hindered by delays, bureaucratic issues, and uncertain reserves. With growing demand, the country's gas supply capacity may remain insufficient by 2030 unless reforms in contractor engagement, data transparency, and PSC frameworks are implemented swiftly.





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The Energy Division and Petrobangla have launched multifaceted initiatives to confront a sustained, chronic gas crisis. These include implementing ongoing exploration and development projects, connecting discovered gas resources in Bhola with the national gas grid, and attracting private sector investment through fresh bidding—following the finalization of an updated Model PSC for onshore exploration and an updated MPSC for offshore, especially targeting prospective gas blocks in the Chattogram Hill Tracts and offshore areas of the Bay of Bengal. Plans also involve setting up an FSRU and a land-based LNG terminal to increase import capacity.

The target and objective are to achieve a gas supply capacity of 4,800 MMCFD by 2030. Relevant experts and analysts have observed that domestic gas production is declining by 120–150 MMCFD annually. Current production is hovering between 1,885 and 1,930 MMCFD. Petrobangla is optimistic about increasing this to 2,000 MMCFD by implementing its ongoing and planned initiatives successfully.

By early May 2025, about 49 MMCFD of new gas can be evacuated to the gas grid from three freshly drilled wells in the Sylhet region. The capacity of the two operational FSRUs stands at 1,100 MMCFD. Work is in progress to increase this capacity to 1,600 MMCFD by 2028, 2,100 MMCFD by 2030, and 2,600 MMCFD by 2032.

Officials at the EMRD and Petrobangla, who are responsible for delivering these programs, are optimistic that by 2030, the gas supply capacity in the supply chain (own production plus imported LNG) can be increased to 4,000 MMCFD. However, achieving this will require the financial capability to import LNG, as imported LNG would need to contribute over 50% of the total supply. New gas users will be required to use gas at the cost price. As part of this process, gas prices for new users in captive generation and industrial sectors have already been increased by 33%. Petrobangla, of course, has requested a higher price adjustment.

A Petrobangla official acknowledged



that the country's domestic gas production and supply currently rely heavily on a single field: Bibiyana, which presently supplies 950 MMCFD. Plans are being finalized to connect the Bhola gas fields to the national grid to avoid a major supply disruption due to the progressive decline of Bibiyana's production. Officials believe that the present and prospective gas reserves of Bhola and the adjoining areas may serve as a good alternative to Bibiyana. With this aim in view, construction of a gas transmission pipeline from Bhola to Dhaka via Barisal and Jajira—utilizing the pipeline already constructed along the Padma Bridge—is expected to begin by the end of 2025. A Petrobangla official told EP that the Bhola gas fields currently have 10 ready-to-produce gas wells, and 10 more wells will be drilled under the ongoing program. Together, these wells will have a delivery capacity of 400 MMCFD.

Petrobangla officials also mentioned plans for seismic surveys on islands adjacent to Bhola. Hence, there are prospects of discovering further resources. This would only strengthen the possibility of evacuating gas at higher rates from the region. The currently estimated recoverable reserve is about 2 TCF. Further success could make the Bhola gas reserve one of the largest in the country.

Mortuza Ahmad Faruque (Chisty) suggested continuing exploration and development of gas resources in Bhola, primarily to prove the reserves.

However, the dividends of this effort may not be realized until Bhola is connected to the national gas grid. It may take at least four years to establish that connection, as the pipeline will have to traverse very aggressive and challenging terrain.

50 Wells Drilling Program

Petrobangla launched a program to drill 46 wells in 2022, with a target for completion by 2025. Later, the number was increased to 50 wells. Among these were 18 exploration wells. The plan was to increase production by 648 MMCFD. At the time of writing this report, only 16 wells have been completed. These include 7 exploration wells, 7 workovers, and 2 development wells. Petrobangla sources claim to have increased production capacity by 184 MMCFD from the completed work. Of this, 72 MMCFD has been evacuated to the grid, while the remaining increased capacity remains stranded on the isolated Bhola island.

Responding to a question about delays in the implementation of the drilling program, a Petrobangla official explained that a specific number of wells had been planned for drilling by contractors. The previous government had selected contractors to drill 17 wells. However, the interim government canceled the 15-well drilling program finalized by the previous regime, as it had been processed under the Speedy Power and Energy Supply (Special) Act. Work on the other two wells, which had already commenced, is now at an advanced stage.

Chinese company Sinopec has been engaged in drilling under the Sylhet Gas Fields. For the remaining wells—including four deep-drilling projects—tenders were invited, and China's CCDC was selected to drill 10 wells (under Sylhet and Bangladesh Gas Fields). For five wells in Bhola, bids have been submitted and are currently being evaluated by BAPEX. Proposals for two additional deep-drilling projects are also under evaluation.

In total, 21 of the 34 pending wells will be drilled through contractors, and tenders are being processed for two more deep-drilling projects. The rest will be handled by BAPEX using its rigs. Currently, five BAPEX rigs are operational, and within the next three to four months, contractors are expected to bring five more rigs into the country to start drilling. Officials are optimistic that drilling will be completed for the remaining 34 wells, including 11 more exploration wells, by June next year.

This is expected to bring 313 MMCFD of new gas into production, of which more than 200 MMCFD can be added to the grid immediately. However, domestic production is projected to decline by another 100–120 MMCFD by then.

100 Additional Wells Drilling Program by 2028

The former government finalized a plan for drilling 100 wells, with a target for completion by 2028. The ambitious plan included 69 exploration wells. According to media reports, the planned initiative would require an investment of Tk 20,000 crore. Foreign drilling contractors, alongside BAPEX, are to execute the work.

During the previous government's tenure, a plan was finalized to drill a total of 100 wells, including 69 exploration wells. The interim government decided to continue with the plan and moved forward with phased execution. Expedited implementation programs have been taken up for certain wells identified as priorities. Work is underway to conduct



surveys and prepare DPPs to start drilling 19 wells—including 8 exploration wells—beginning in July 2026. The estimated cost for this phase is Tk 3,000 crore, to be financed from the Gas Development Fund and company funds. Of these 19 wells, 5 will be drilled in the grid-isolated Bhola region.

A Petrobangla source informed that the 100-well project will be implemented in phases, and they are optimistic about completion by 2028, with BAPEX and foreign contractors working together. However, former Petrobangla officials and experts are not optimistic about completing the 150 wells (including current and planned) on schedule. Mortuza Ahmad Faruque, former Managing Director of BAPEX, observed that under the current procedures followed by BAPEX and Petrobangla companies—whether working independently or through hiring contractors under PPR rules—the targets are not achievable. To implement the plan on time, he suggested adopting methods used by international oil and gas companies for appointing drilling contractors and hiring services.

Can Bhola Gas Fields be an Alternative to Bibiyana?

The present domestic gas production is 1,900 MMCFD. The Bibiyana field alone produces 950 MMCFD. Only a couple of years ago, Bibiyana was producing 1,200 MMCFD. Assessing the current depletion trend, experts predict production may fall to 400–450 MMCFD within the next 3–4 years. Senior Petrobangla officials are of the view that the gas reserves in the Bhola region can serve as an alternative to Bibiyana.

Greater Bhola currently has 10 production-ready wells, with local demand of 60–80 MMCFD being met from 5 of them. Tenders have been submitted for drilling 5 more wells in Bhola, and evaluations are ongoing. Additionally, under the initial phase of the 100-well plan, 5 more wells are planned for Bhola. Seismic surveys are also planned for the region.

When asked why 20 wells are being drilled and developed in the grid-isolated Bhola Island, Petrobangla officials responded that these wells will be ready for production in 3–4 years. In the meantime, Petrobangla is aggressively moving forward with plans to evacuate gas by constructing a transmission pipeline from Bhola to Dhaka via Barisal and Jajira. Within the next 4 years, Bhola's gas resources can be connected to the national gas grid. In such a scenario, gas from Bhola could potentially become an alternative to Bibiyana.

However, former Petrobangla Director Engr. Ali Iqbal Md. Nurullah pointed out several technical challenges in treating Bhola as a Bibiyana alternative. He noted that the actual reserves in Bhola are still not confirmed, making it difficult to determine the required pipeline diameter. Additionally, gas in the country is typically supplied through pipelines at 1,000 PSI, raising the question of whether Bhola's gas can be brought to Dhaka without compressors—something that requires technical assessment.

Engr. Nurullah also suggested considering LNG import possibilities using deep offshore LNG infrastructure off the coast of Kuakata, in conjunction with gas evacuation from Bhola. He believed that importing LNG at Kuakata and delivering gas via pipeline to Khulna could complement the supply to the national gas grid.

Delay in Developing the Chattak Gas Field

Two successive blowouts during operations by the Canadian company NIKO Resources—working under a contract as a joint venture partner of BAPEX—led to the discovered resource of Chattak and the probable gas resource of Tengratilla remaining unutilized for about 20 years. The incident, which created a contractual dispute, has since been resolved through arbitration. Although Petrobangla won a legal case against NIKO over accident compensation at an international court two years ago, the court has yet to determine which Bangladeshi entity will receive the compensation funds. As a result, Petrobangla has not been able to resume exploration in Chattak.

Experts believe Chattak holds significant potential, and results could be confirmed within a year if work starts. Any discovery here could immediately supply gas to the nearby grid, playing a major role in addressing the current gas crisis.

Petrobangla and BAPEX have confirmed that preliminary plans for exploration in Chattak have been finalized and that work will begin as soon as the court's final decision is issued. But the key question now is how long it will take to get the court's final verdict.

Unsolicited Exploration Proposal of Chevron

Most of the prospective areas in the Surma Basin are now ring-fenced for BAPEX. Chevron is currently producing gas from the Bibiyana, Jalalabad, and Maulavibazar fields under a PSC with Petrobangla. After completing exploration, Chevron relinquished most of Blocks 11, 12, and 13 as per the terms of the PSC. Chevron has now submitted a fresh proposal to Petrobangla, expressing interest in



exploring a 7,000–8,000 square kilometer area in Blocks 11 and 12 under a new PSC. Chevron has requested negotiations for a PSC following the model PSC framework used for offshore exploration.

Petrobangla and Energy Division sources have indicated that they agree in principle to negotiate with Chevron. However, such negotiations cannot be held based on the model PSC for offshore exploration.

It has also been informed that a separate PSC framework for onshore exploration is currently being finalized. Negotiations with Chevron may proceed under the updated PSC for onshore exploration.

Mortuza Ahmad Faruque observed that Chevron is an experienced company with proven success in these blocks. If they are allowed to proceed under a new PSC concluded through negotiations, there is every possibility of discoveries. This could be a “game changer” in alleviating the current gas crisis.

Onshore PSC

Petrobangla initiated action to draft a model PSC for onshore exploration following the government's policy decision to attract FDI in oil and gas exploration. Wood Mackenzie, appointed as a consultant, has recently submitted its final report. The consultants, taking due note of PSC models from other countries, finalized the report. They advised Bangladesh to include different financial packages in

the PSC for the Chittagong Hill Tracts, plains, and deep structures. While they mentioned in discussions setting the price at 10% of Brent crude per barrel (per mmBtu), in the final report, they did not specify it. Instead, they recommended setting prices between 8% and 9.5% of Brent crude for the plains, deep structures, and hill tracts. After receiving the final report, Petrobangla forwarded it to the Energy Division for directives, but no feedback has been received yet.

Apart from the financial package, Petrobangla has drafted other aspects of the PSC. In the draft, the gas share between IOCs and Petrobangla for the hill tracts is proposed to be similar to that of the shallow offshore blocks. Once Petrobangla receives guidance from the Energy Division, it believes it can finalize the onshore PSC draft within two weeks. Under this framework, two blocks in the hill tracts and some blocks outside the ring-fenced areas could be opened for bidding.

Offshore PSC

The EMRD has shown a positive attitude about launching a fresh bidding round to attract offshore oil and gas investment. However, it has not yet given Petrobangla formal instructions to proceed. In the updated offshore PSC, the gas price was adjusted to 10% of Brent crude, which initially drew considerable interest. Several companies purchased tender documents, but on the final submission day in December last year, no bids were submitted.

Petrobangla contacted IOCs under the Energy Division's instructions to understand the reasons behind the lack of bids. It was learned that concerns about political stability were among the key reasons. Most companies indicated their intention to wait until the formation of a newly elected government before making investment decisions. One company even cited the recent cancellation of an FSRU installation contract and the withdrawal of an LOI for a solar power project, questioning whether contracts signed under an interim government would be honored by the next elected government.

Questions were also raised about a provision in the current PSC that does not allow cost recovery from one block's discovery to cover investments made in another block. Some companies suggested allowing cost recovery across blocks if one company holds multiple blocks. While the PSC does allow cost recovery for pipeline investments following a gas discovery, IOCs believe they should also be entitled to profit-based cost recovery or receive wheeling charges.

A Petrobangla official said the lack of proper data is another reason for low IOC interest. Petrobangla had contracted multi-client seismic survey companies to carry out 2D seismic surveys offshore, prepare data packages, and sell them. However, since Petrobangla had no control over data pricing, complaints arose that the data package prices were too high.

According to the contract, the survey company was supposed to cover all offshore blocks on a 10x8 km grid, totaling 12,000 line kilometers. They surveyed only 3,500–4,000 line kilometers, scattered across various areas, failing to provide a clear picture of specific blocks.

At the time of tender submission, Brent crude was priced at \$70 per barrel, translating to around \$7 per MMBtu gas price, lower than the \$7.2 per MMBtu under the 2019 PSC.

Petrobangla believes these issues need to be addressed by revising the offshore PSC before inviting new bids. However,

they are still waiting for instructions from the Energy Division.

LNG Imports

Against the backdrop of the emerging gas crisis since 2008, Bangladesh launched an initiative to set up infrastructure for importing LNG and sourcing it from the global market. The first FSRU came online in 2018, followed by a second one a year later. Although the government had proposals for several more FSRUs at the time, it decided instead to fast-track the construction of an onshore LNG terminal at Matarbari. However, that has yet to happen. Recently, the interim government decided to implement the onshore LNG terminal as a PPP (Public-Private Partnership) project.

Meanwhile, Petrobangla is almost ready to invite bids for an additional FSRU at Moheshkhali, which could become operational by 2029. However, the government recently decided that before going for a new tender, a feasibility study must be conducted for that FSRU. As a result, the tender process may be delayed by 6–12 months. The onshore terminal is expected to be partially operational by 2030 and fully operational by 2032.

Currently, the two FSRUs have a combined capacity of 1,100 MMCFD. The previous government signed a contract with Summit Energy for a third FSRU at Maheshkhali, which was supposed to come into commercial operation by the end of 2027. The interim government canceled the contract due to it being awarded without tender—this has led to a pending court case. Other proposals, such as another FSRU at Kuakata and two RLNG import projects through pipelines from India, were also canceled during negotiations.

Petrobangla currently has no infrastructure in place to rapidly increase LNG imports to alleviate the gas crisis, meaning there is no alternative but to wait until at least 2029 to add new capacity.

Conclusion

The chronic gas crisis in Bangladesh has grown into an alarming proposition. Even if the full LNG supply capacity is

utilized, the current gas deficit of around 1,300 MMCFD could only be marginally reduced to around 1,000 MMCFD. Although domestic gas production is projected to increase, it is unlikely that the domestic supply will exceed 2,000 MMCFD. Even if new initiatives bring 400 MMCFD of gas into the grid by 2029, the decline in current production from 1,900 MMCFD to possibly 1,400 MMCFD during this period means total domestic supply will not exceed 1,800 MMCFD. Integrating Bhola's gas into the grid within this timeframe is almost impossible.

Meanwhile, gas demand is expected to rise further. To manage the situation, the country could maximize the use of coal and nuclear power to reduce gas use in grid electricity production. However, leaving gas-fired power plants idle would negatively impact electricity generation costs.

There is no reason to believe that gas from Bhola can be an ideal replacement for Bibiyana. The Bibiyana gas field was developed following best international practices, including proper reservoir studies and an ideal development plan. It also had the advantage of being located almost at the heart of the national gas grid. The reserves of the Bhola gas fields have not yet been proven following international best practices. An integrated gas grid network simulation is also required for the engineering and design of gas evacuation facilities. We are not optimistic either about Petrobangla/BAPEX managing the two major drilling projects on time. There are also concerns about FSRU and land-based terminal projects being implemented on schedule, given past experience. Furthermore, there is no guarantee that foreign investment will be available for onshore and offshore exploration, as is currently anticipated.

Therefore, even if Petrobangla's current and upcoming initiatives are 100% successful, the gas crisis will not ease by 2029—it is likely to worsen. Moreover, experts believe that under Petrobangla's existing and upcoming plans, completing all the planned drilling within the set timeline is very unlikely. 