



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 26-Feb-2025 | Report No: PIDDC01248

**BASIC INFORMATION****A. Basic Project Data**

Project Beneficiary(ies) Bangladesh	Operation ID P181811	Operation Name Energy Sector Security Enhancement Project	
Region SOUTH ASIA	Estimated Appraisal Date	Estimated Approval Date 15-Jul-2025	Practice Area (Lead) Energy & Extractives
Financing Instrument Investment Project Financing (IPF)	Borrower(s) The Government of Bangladesh	Implementing Agency Petrobangla	

Proposed Development Objective(s)

The project development objectives are to enhance gas supply security by facilitating access to cost-effective financing, and strengthen the institutional capacity of sector agencies

PROJECT FINANCING DATA (US\$, Millions)**Maximizing Finance for Development**

Is this an MFD-Enabling Project (MFD-EP)?	No
Is this project Private Capital Enabling (PCE)?	Yes

SUMMARY

Total Operation Cost	2,100.00
Total Financing	2,100.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

Guarantee	350.00
IDA	350.00

Non-World Bank Group Financing

Commercial Financing	2,100.00
----------------------	----------



Commercial Financing Guaranteed		2,100.00
Guarantee Information		
Guarantee Type	Coverage	Enclave Operation
Project-Based Guarantee	Loan Guarantee	No
Is there an intermediate jurisdiction present in the guarantee beneficiary's structure?		
No		
Guarantee Beneficiary	Guarantee Fees	Guarantee Schedule
	Upfront	08-Dec-2025
Guarantee Expiration Date		
15-Jul-2032		
Environmental and Social Risk Classification		Concept Review Decision
Moderate		The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **Bangladesh experienced rapid economic and social progress in recent decades, reaching lower middle-income status in 2015.** Stable macroeconomic conditions underpinned an average annual real gross domestic product (GDP) growth of 6.4 percent between 2010 and 2023, and poverty rate declined. However, the pace of GDP growth and poverty reduction moderated in the last few years. An interim government was sworn in August 8, 2024, after the former Prime Minister resigned and left the country amid a mass uprising. Economic activities have been gradually normalizing since the transition, but significant downside risks and uncertainty remain.

2. **Real GDP grew by 5.0 percent in FY2024, declining from 5.8 percent in FY23.** On the supply side, GDP growth was primarily driven by industry and the services sectors. Industry sector expanded by 5.3 percent, but the growth rate remained below the decade’s historical average of 9.5 percent due to energy shortages, import restrictions, and monetary tightening. Services growth grew by 5.4 percent. Inflation remained elevated, reaching 9.9 percent in September 2024, driven by rising food prices. Monetary policy has remained tight to bring down inflation. The financial sector remains vulnerable to high nonperforming loans and weak governance, which has prompted corrective actions by the government



3. **The current account and fiscal balance have improved.** The current account deficit narrowed in FY24 and in FY25 Q1, as remittance inflows grew following the depreciation of the currency. Yet, foreign reserves continued to decline in FY24, reaching US\$19.8 billion (3.2 months of import coverage) as of October 2024. The fiscal deficit is estimated to have narrowed to 3.7 percent of GDP in FY24 from 4.6 percent in FY23, primarily due to a reduction in expenditure despite weak revenue collection. Public debt stood at 36.8 percent of GDP in FY24.

4. **Real GDP growth is projected to decline to 4.1 percent in FY25 but could range between 3.2 and 5.2 percent,** The wide range of the projection reflects significant uncertainties around the outlook due to the lingering economic impact of the recent political transition. These uncertainties are expected to keep investment and industrial growth subdued in the short term. Growth is expected to rise gradually, benefiting from critical reforms. In the medium term, reform priorities include improving business environment, diversifying exports, investing in human capital, expanding infrastructure, stabilizing and deepening the financial sector, and attracting private investment. These structural reforms would strengthen international competitiveness as Bangladesh prepares for graduation from Least Developed Country (LDC) status in 2026, which will reduce concessional financing and preferential market access for its exports.

5. **Bangladesh faces a high level of vulnerability to the effects of climate change.** The Global Climate Risk Index ranks it as the seventh most affected country between 2000-2019,¹ with high susceptibility to extreme weather events such as cyclones, floods, and storm surges. According to the Bangladesh Country Climate and Development Report (CCDR), recurring flooding in Bangladesh affects a greater share of the population than any other natural hazard, impacting more than 1 million people annually. Addressing these climate risks will support sustainable economic development and prevent vulnerable populations from being left behind.

Sectoral and Institutional Context

6. **Natural gas plays a dominant role as the primary energy source in Bangladesh and will continue to play an important role during the transition to achieving net zero.** Natural gas comprises approximately 57 percent of the country's energy supply, while liquid fuels and coal represent 29 percent and 12 percent, respectively. In addition, hydropower and renewable energy contribute minimally at 0.4 and 1.7 percent, respectively^{2,3}. The Government of Bangladesh (GoB) has made commitments to increase the share of renewable energy (RE) generation in the country to 40 percent by 2041. The country has made steady progress by increasing its RE contribution by 250 MW from a base of 717 MW between FY2022⁴ and FY2023, but the pace of scaling up RE has been constrained due to challenges faced with planning, limited bankable projects to attract investments and limited land resources for the predominant RE resources in the country, which is solar. Consequently, natural gas is expected to dominate the energy mix during the transition period.

7. **Domestic gas production in Bangladesh has been on a steady decline** (down 15 percent from its peak in 2016) **due to aging gas fields** and an extended lull in exploration activities and gas discoveries over the past decade. Bangladesh has historically relied on domestic gas production to meet its gas demand. As such, this has widened the demand-supply gap in the gas sector. Bangladesh imports liquified natural gas (LNG) through long-term and spot contracts to meet growing demand. Bangladesh's current gas supply is 3,120 mmcf/d (million cubic feet per day), of which approximately 69 percent is met through domestic production (2,150 mmcf/d). The remaining 31 percent is imported as LNG, underpinned by its two long-term contracts for gas supply with Qatar (2.5 million metric tons per annum, MMTPA) and Oman (1

¹ German watch (2021) Global Climate Risk Index 2021.

² Energy and Mineral Resources Division (2024). Energy Scenario of Bangladesh 2022-2023.

³ Based on reported total commercial energy (which excludes biomass consumption), but re-based to exclude imported electricity.

⁴ Energy and Mineral Resources Division (2023). Energy Scenario of Bangladesh 2021-2023.



MMTPA), together comprising 82 percent of total LNG supply, with the remaining purchased via spot cargoes⁵. The cost of LNG is significantly higher than domestic gas. Thus, increased LNG imports place significant fiscal pressure on the gas sector and leave it vulnerable to pricing volatility, particularly in the spot market. Over the longer term, Bangladesh seeks to augment existing gas reserves and scale up exploration for new ones. In addition, Petrobangla is in active negotiations for more long-term LNG contracts with other suppliers.

8. **Given the predominance of gas in the Bangladesh energy mix, shortages in gas supply have significant negative impacts on the Bangladesh economy.** Gas is primarily used in the power sector⁶, which accounts for 42 percent of total gas consumption⁷. Gas-fired power plants make up 44 percent of the installed generation capacity in Bangladesh and 59 percent of the electricity generated⁸. Other gas consumers include captive plants (17 percent), industries (19 percent), domestic sector (11 percent), fertilizer plants (5 percent) and other sectors (5 percent). Demand without curtailment due to fuel shortages is estimated to be around 20-25 percent higher than total supply, leading to load shedding within the power sector – the most significant gas consumer. Fuel shortages have resulted in 19 percent of power generating capacity being unavailable to meet peak demand, doubling to almost 40 percent in areas with a higher concentration of gas plants, such as Dhaka. Industrial consumers are equally impacted by the gas shortage. Production has been cut back for industrial consumers who utilize gas as a feedstock, due to gas curtailment. Affected industries include cement, brick, glass, and paper industries. The ready-made garment (RMG) sector which accounts for over 80% of Bangladesh’s exports, is also affected by gas shortage due to its use of gas primarily in captive energy generation, dyeing, washing, and finishing processes. More broadly, many industrial consumers utilize gas as fuel to their captive power plants, and without gas, these industrial consumers are forced to turn to more liquid fuels, such as diesel, for their captive generation. This would significantly increase their costs, with a corresponding drag on their financial returns and profitability.

9. **Bangladesh’s energy security is thus contingent upon LNG imports to meet growing gas demand due to limits on domestic production.** Despite its importance, gas supply in Bangladesh has been increasingly constrained by high import costs, limited LNG regasification infrastructure, inadequate internal transmission networks, and significant losses through leakage. To meet shortfalls due to the lack of gas availability and other system constraints, Bangladesh imports electricity mostly from India. However, this is insufficient to meet growing demand.

10. **The state-owned company Bangladesh Oil, Gas, and Mineral Corporation (Petrobangla), which oversees LNG imports, domestic natural gas exploration, production, transmission, and distribution, is not financially self-sustaining.** Petrobangla is under the authority of the Energy and Mineral Resources Division (EMRD) of the Ministry of Power, Energy and Mineral Resources (MPEMR). It oversees the gas transmission network through its subsidiary Gas Transmission Company Limited (GTCL), while six other subsidiaries manage the distribution network. Petrobangla’s revenues do not cover costs, owing in part to a lack of cost-reflective end-user gas tariffs, poor collection rates, and inefficiencies in LNG procurement, making it reliant on government subsidies. Petrobangla’s finances are also vulnerable to volatility in the cost of LNG spot cargoes, which fluctuate with global markets and often sell at a premium. Over the past year, the compounding effects of currency depreciation, sectoral inefficiencies, and high LNG costs have challenged Petrobangla’s ability to make timely payments to its suppliers in foreign currency. As such, in mid-2024, the International Islamic Trade Finance Corporation (ITFC) extended a liquidity facility to Petrobangla to meet its short-term working capital requirements.

⁵ Petrobangla (2024). Annual report 2022-23.

⁶ This includes grid, non-grid plants and excludes captive units.

⁷ Petrobangla (2024). Annual Report FY 2022-2023.

⁸ Bangladesh Power Development Board (2024). Annual Report FY 2023-2024.



11. **The power sector is the largest consumer of natural gas and the lack of security of gas supply has a strong ripple effect on the cost of electricity generation in Bangladesh.** Bangladesh Power Development Board (BPDB), as the single-buyer for the power sector, is reliant on Petrobangla for gas supplies for its fleet of gas-fired power plants. Currently, BPDB only receives ~1,000 mmcf/d out of its 1,400 mmcf/d gas allocation. This shortage of gas has forced BPDB to rely on expensive oil-based generation that is three to eight times the cost of gas generation. The reliance on expensive oil generation inhibits cost recovery for BPDB, given the cap on downstream consumer power prices, resulting in a reliance on government subsidies to close the revenue gap at the level of BPDB. Delays in receiving subsidies from the government constrain BPDB's financial position who in turn is unable to make timely payments to Petrobangla. This creates a vicious cycle, as challenges in payment collection from the power sector exacerbate Petrobangla's liquidity issues, leaving it saddled with high levels of accounts receivables.

12. **Broader structural reforms are required in the energy sector to ensure financial sustainability.** The World Bank is already providing support to improve the efficiency of investments in the gas and power sector, mobilize private sector investments, lower production and supply costs, and improve efficiency – including through financing over 1.2 million gas meters to previously non-metered consumers. However, a longer-term engagement is needed to strengthen the institutional capacity of sector agencies, including Petrobangla and the gas and power sector regulator – the Bangladesh Energy Regulatory Commission (BERC). Key areas identified for reform actions include gas sector planning and investments, tariff regulation, international gas procurement capacity, gas flaring and methane reduction, as well as leakage reduction in industrial customers.

13. **The proposed engagement seeks to support the government in addressing these challenges initially through a single operation with the potential to upgrade to a programmatic approach** after further dialogue with the client on the potential scope of subsequent phases. This operation would utilize IDA guarantee instrument to mobilize private sector capital in the natural gas sector, while also working in partnership with other development institutions. The use of a World Bank IDA guarantee would increase the availability of liquidity in a cost-effective manner, improve the creditworthiness of Petrobangla, and support its energy security. The proposed operation would also provide technical assistance to the sector in partnership with other development partners, in preparation for broader sector reforms to improve the sustainability of the energy sector.

Relationship to CPF

14. **The proposed operation is relevant to the objectives of the World Bank's Country Partnership Framework (CPF) FY23-27.** It will contribute to the CPF Objectives 1 (Improved business environment for broad-based private sector development), 2 (Strengthening financial intermediation to support long-term growth and resilience) and 3 (Improved effectiveness of public institutions to deliver better services to citizens and businesses, under the CPF's Higher Level Objective (HLO) A. Improved energy security and increased availability of lower cost electricity supply creates an enabling environment for productivity, growth, jobs, and private sector development. The use of a WB guarantee to mobilize private commercial capital from local banks will increase their capacity and strengthen investor confidence in the banking sector. The technical assistance provided to Petrobangla will increase its efficiency in the planning, procurement and management of natural gas delivery to the power producers, industries, fertilizer companies and other end users. The operation also contributes to the CPF Objectives 8 (Enhanced sustainability and productivity in the use of natural capital for climate-smart green growth) under HLO C as the availability of natural gas will minimize the use of fuel oils as an alternative fuel in power generation and technical assistance provided to Petrobangla will contribute to the development of climate resilience infrastructure and adaptation of existing infrastructure.



15. The operation is consistent with Bangladesh’s Nationally Determined Contribution (NDC, updated in 2021) and National Adaptation Plan (NAP, 2023-50). The NDC highlights the need for gas as a transition fuel to enhance energy security and ensure low emission development, with efficiency upgrades to existing gas plants and building of more efficient gas plants as key pillars under both its conditional and unconditional mitigation measures. The National Adaptation Plan (NAP) of Bangladesh 2023-50 mentions the need to develop climate-resilient infrastructure. This aligns with a segment of the technical assistance (TA) support which targets to introduce adaptation risk assessment and strategy in the Gas Sector Masterplan, which will outline a pathway to ensure climate resilience in existing and upcoming gas infrastructure in the country.

16. The operation also contributes to improved air quality through cleaner and more efficient power generation, a clear priority for Bangladesh, as outlined in the 2022 Bangladesh Country Climate and Development Report (CCDR). The project enables the import of LNG, which can be utilized in the power sector to displace oil plants, which are inefficient and responsible for about two-thirds of total SO₂ and 70 percent of NO_x emissions - important precursors of secondary PM_{2.5}, the key source of air pollution. In addition, the displacement of expensive oil plants will support cost recovery in the power sector. The TA element, which aims to address fugitive emissions across Bangladesh’s natural gas value chain, is also in alignment with the CCDR recommendation of reduction of CH₄ and CO₂ emissions in the upstream oil and gas sector.

C. Proposed Development Objective(s)

17. The project development objectives are to enhance gas supply security by facilitating access to cost-effective financing, and strengthen the institutional capacity of sector agencies

Key Results (From PCN)

18. Progress towards achieving the PDO will be monitored through the following PDO indicators:

Outcomes	Results indicators
Improved gas supply	<ul style="list-style-type: none"> Volume of LNG supply supported by the facility (Number of cargoes)
Improved financial terms	<ul style="list-style-type: none"> Improvement in gas supply spot market terms measured as a reduction in pricing premium spread over Asian spot LNG price markers Improvement in financing cost
Strengthened sector institutional capacity	<ul style="list-style-type: none"> Published roadmaps for institutional reforms across key aspects of procurement practices, methane reduction and strategic planning People trained to strengthen institutional capacity (number)
<i>Intermediate outcomes</i>	
Reduced emissions	<ul style="list-style-type: none"> Annual reduction of GHG emissions promoted by the project (tons of CO₂/year).
Private finance mobilization	<ul style="list-style-type: none"> Private capital mobilized, measured as the amount of funding disbursed by international financial institutions for the purpose of gas purchases (US\$).



D. Concept Description

19. The proposed operation involves a revolving working capital facility ("Facility") backed by IDA payment guarantee to mobilize commercial financing and address payment security and immediate liquidity needs in the sector, coupled with technical assistance to support the analytical work for short- and long-term gas sector planning, reforms and institutional capacity building. These reforms would aim to diversify gas suppliers, reduce losses, and improve Petrobangla's financial and operational efficiency.

20. **Component 1. IDA guarantee-backed Facility for US\$ [350] million as a payment security for gas supply.** The Facility's structure consists of a revolving working capital facility of up to US\$ [350] million to be provided by commercial banks procured by Petrobangla, with the support of the IDA-SUW guarantee. As a secure working capital financing for Petrobangla in US dollar (USD), the Facility is intended to enhance Petrobangla's ability to procure LNG imports by complementing the existing stand-by L/Cs and working capital line provided by ITFC. The Facility will enable a minimum US\$ [350] million worth of annual gas imports on improved terms and with the revolving feature over a seven-year period, unlock approximately US\$ [2.1] billion in gas supply.

21. Under the proposed Facility, Petrobangla would request commercial banks to issue letters of credit (L/Cs) to act as a payment security to LNG suppliers under eligible LNG sale and purchase agreements (SPAs) or master sale and purchase agreements (MSPAs). A draw on the L/Cs converts the payment made by the Facility into a short-term loan from the Facility to Petrobangla. This enables Petrobangla to access the necessary liquidity support required to manage the payment obligations towards those LNG suppliers. Once drawn, Petrobangla would have the obligation to repay the loan to the Facility over a period of up to [12] months. In aggregate, the total outstanding exposure under the L/Cs issued and loans availed by Petrobangla under the Facility will not exceed US\$ [350] million at any given time.

22. **Component 2. Technical Assistance (TA).** The operation would also include technical assistance activities to address structural inefficiencies within the energy sector and strengthen the sector's institutions. This technical assistance would be funded by Trust Funds and other development partners. The objective of the TA program is to lay the foundations for the analytical work necessary to improve gas supply diversification, address loss reduction, improve gas and power sector governance, public procurement and revenue efficiency and strengthen sector institutions including Petrobangla, the energy regulator and power sector institutions.

Legal Operational Policies	
Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts



E. Summary of Assessment of Environmental and Social Risks and Impacts

The project involves a financial guarantee for LNG imports, supporting the government’s energy security objectives. The project does not include physical activities such as construction, infrastructure development, or land acquisition. Main risks are associated to proper implementation of Petrobangla’s management system and procurement practices.

Under ESS1, ESS2, ESS3, and ESS4, Petrobangla’s ESMS and E&S aspects of the procurement practices will be reviewed. Petrobangla will need to have the capacity to assess providers ESMS, health and safety records (OHS), life and fire safety and emergence procedures, and labor practices. By Appraisal, a draft ESCP and SEP, will be agreed between the Petrobangla and WBG (or Lender), which will be formally negotiated as part of the legal agreement in the project negotiations. These plans will outline the specific measures and actions that must be undertaken by the borrower to manage and mitigate environmental and social risks and impacts throughout the project's lifecycle, within the stipulated timeframe for each specific action. If necessary, the ESCP will include also provisions to strengthen Petrobangla’s ESMS and E&S aspects of the procurement practices. ESS 4 and 10 will address any potential impact or concerns on communities. Stakeholder engagement plan will manage the process of effective information sharing with different stakeholders. The SEP will also build on the existing feedback to strengthen the system of managing grievances. The screening criteria for gas suppliers will also include E&S criteria

F. Borrower’s Institutional Capacity for Managing Environmental and Social Risks Impacts

Petrobangla, the state-owned entity responsible for managing natural gas resources, will oversee the implementation of this project. Petrobangla is familiar with Bank ESF and currently coordinating Gas Sector Efficiency Improvement and Decarbonization Project (P179009). During project preparation, an assessment of Petrobangla procurement practices in relation to E&S aspects will be carried out. If any gaps are identified, an Action Plan to address these gaps will be prepared to strengthen the institutional capacity to manage E&S risks and ensure the ESMS alignment with the WB ESF requirement and with international best practices. By appraisal, an Environmental and Social Commitment Plan (ESCP) will be developed by Petrobangla, reviewed by the Lender, and revised as necessary before being formally approved. This plan will outline the specific measures and actions that must be undertaken by the borrower to manage and mitigate environmental and social risks and impacts throughout the project's lifecycle, within the stipulated timeframe for each specific action.

CONTACT POINT

World Bank

Olayinka Mutiat Edebiri
Senior Energy Specialist

Varun Rachappa Hallikeri
Senior Infrastructure Finance Specialist



Borrower/Client/Recipient

The Government of Bangladesh

Implementing Agencies

Petrobangla

Rezanur Rahman

Mr

petchair@petrobangla.org.bd

A K M Mizanur Rahman

Rahman

petrofin@petrobangla.org.bd

FOR MORE INFORMATION CONTACT

The World Bank

1818 H Street, NW

Washington, D.C. 20433

Telephone: (202) 473-1000

Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Olayinka Mutiat Edebiri, Varun Rachappa Hallikeri
----------------------	---

Approved By

Practice Manager/Manager:		
Country Director:	Gayle Martin	01-Mar-2025