

## Bangladesh : Power System Upgrade and Expansion (Chattogram Area) Project

### 1. Project Information

Project ID:	P000088	Instrument ID:	L0088A
Member:	Bangladesh	Region:	Southern Asia
Sector:	Energy	Sub-sector:	Electricity transmission and distribution
Instrument type:	<input checked="" type="checkbox"/> Loan:120.00 US Dollar million <input type="checkbox"/> Guarantee	Lead Co-financier(s):	
ES category:	B	Borrowing Entity:	Ministry of Finance, Bangladesh
Implementing Entity:	Power Grid Company of Bangladesh Limited (PGCB)		
Project Team Leader:	Raqib Ahmed Chowdhury		
Responsible DG:	Rajat Misra		
Responsible Department:	INF1		
Project Team Members:	Liu Yang, Project Counsel; Shonell Robinson, OSD - Financial Management Specialist; Pedro Ferraz, OSD - Environment Specialist; Yunlong Liu, OSD - Procurement Specialist; Victoriano Macasaquit, OSD - Social Development Specialist		
Completed Site Visits by AIIB:	Nov, 2018 The team visited the project sites in Chattagram during project preparation stage Dec, 2020 Review meeting conducted virtually Sep, 2021 Review meeting conducted virtually Apr, 2022 Multiple virtual implementation monitoring meetings conducted with PIE Aug, 2022 Site Visit with ES specialists Jan, 2023 Meeting with PIE Aug, 2023 Meeting with PIE		
Planned Site Visits by AIIB:	Dec, 2023 Site visit		
Current Red Flags Assigned:	1		
Current Monitoring Regime:	Regular Monitoring		
Previous Red Flags Assigned:	1		
Previous Red Flags Assigned Date:	2023/01		

### 2. Project Summary and Objectives

The objective of the project is to upgrade and strengthen power transmission systems in the Chittagong area to ensure an adequate and reliable power supply. Project activities include:

- Constructing double circuit transmission lines: (a) for 400 kilovolts covering a distance of approx. 27 kilometers from Anowara to Anandabazar; and (b) for 230 kilovolts covering in total a distance of approx. 26 kilometers, consisting of the following two underground segments: (i) approx. 10-kilometer long transmission line from Khulshi to Anandabazar, and Anandabazar to Rampur; and (ii) approx. 16-kilometer long transmission line from Madunaghat to Khulshi.
- Constructing two 230 kilovolts gas-insulated switchgear (GIS) substations: (a) a GIS substation at Anandabazar with transformers of 2x350/450 megavolt ampere; and (b) a GIS substation at Khulshi with transformers of 2x350/450 megavolt ampere and 3x80/120 megavolt ampere.
- Constructing two GIS bay extensions of 230 kilovolts at Madunaghat substation and two GIS bay extensions of 230 kilovolts at Khulshi substation.

After completion of the project, the grid network capacity of Chattogram area will be enhanced. The growing demand of this area will be fulfilled with the reliable power supply to industrial, commercial, and residential load points. This will improve voltage stability of 132kV level in the transmission side along with 33kV in distribution side.

### 3. Key Dates

Approval:	Mar. 26, 2019	Signing:	Nov. 08, 2019
Effective:	Aug. 03, 2020	Restructured (if any):	
Orig. Closing:	Jun. 30, 2023	Rev. Closing (if any):	Jun. 30, 2025

### 4. Disbursement Summary (USD million)

Contract Awarded:		Cancellation (if any):	0.00
Disbursed:	13.99	Most recent disbursement (amount/date):	0.09/Jul. 02, 2023
Undisbursed:	106.01	Disbursement Ratio (%) <sup>1</sup> :	11.65

### 5. Project Implementation Update

There are three turnkey (design, supply, construction) procurement packages, and the bidding process for all the packages has been completed. All the packages are now signed, and advance payments have been processed. Contractors are now focusing on the design aspect of the projects and soil tests of the project area (for transmission line construction). Soon, they will request PGCB to open multiple letters of credit (LCs) in favour of the contractors for the supply of required materials from abroad. In this regard, AIIB needs to issue Special Commitment letters as a way of loan disbursement.

Components	Physical Progress	Environmental & Social Compliance	Procurement
Component 1:	30.35%	The consultant has been onboarded	The contract was signed in

<sup>1</sup> Disbursement Ratio is defined as the volume (e.g. the dollar amount) of total disbursed amount as a percentage of the net committed volume.

Procurement of material & equipment and necessary installation work including design, erection, testing, and commissioning for Anowara to Anandabazar (New Mooring) 400 kV double circuit overhead line portion: approx. 19.932 km		by PGCB (PIE) for ESMP Implementation	December 2021 and became effective in March 2022.
Component 2: Procurement of material & equipment and necessary installation work including design, erection, testing, and commissioning for Anowara to Anandabazar (New Mooring) 400 kV double circuit underground cable portion: approx. 5.253 km; Khulshi to Anandabazar, and Anandabazar to Rampur 230 kV double circuit underground cable line: approx. 26 km; and Madunaghat to Khulshi 230 kV double circuit underground cable line: approx. 16km.	16.50%	The consultant has been onboarded by PGCB (PIE) for ESMP Implementation	The contract was signed in December 2022 and became effective in May 2023.
Component 3: Procurement of material & equipment and necessary installation works including design, erection, testing, and commissioning for 230/132 kV GIS Substation: Anandabazar (New Mooring) with 2x350/450 MVA	28.95%	The consultant has been onboarded by PGCB (PIE) for ESMP Implementation	The contract was signed in March 2022 and became effective in June 2022.

230/132 kV transformer; 230/132/33 kV GIS Substation: Khulshi with 2x350/450 MVA 230/132 kV and 3x80/120 MVA 132/33 kV transformer; Two nos. 230 kV GIS bay extension at Madunaghat Substation, two nos. 230kV GIS bay extension at Khulshi Substation.			
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**Financial Management:**

PIE submitted its first Audit Report for the year 2019-2022, prepared by the central audit department of the Government of Bangladesh, in April 2023.

**6. Status of the Grievance Redress Mechanism (GRM)**

At the PGCB entity level, GRM is in place. Also, a project-level Grievance Redress Committee has been formed.

**7. Results Monitoring (please refer to the full RMF, which can be found on the last page of this PIMR)**

Project	Capacity	of	Outcome	transmission	Indicators:
1.	Capacity		power		added
2.	Additional		electricity	transmitted	annually
3.	Daily	load	shedding	in	Chittagong
Project			Output		Indicators:
1.	400	kV	transmission	lines	constructed
2.	230	kV	transmission	lines	constructed
3.	230	kV	GIS	substations	constructed
4. 230 kV line bays constructed					

**Remarks:**

Project Objective Indicators	Indicator level	Unit of Measure	Cumulative Target Values																				Frequency	Responsibility	Comments		
			Baseline		2017		2018		2019		2020		2021		2022		2023		2024		End Target						
			Year	Value	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Year	Target				Actual	
Capacity of power transmission added	Project	MVA	2018	0 (Baseline)			0 (Baseline)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1400		End of Project	PIE	
Additional electricity transmitted annually	Project	GWh	2018	0 (Baseline)			0 (Baseline)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2500		End of Project	PIE	
Daily Load Shedding in Chattogram	Project	%	2018	11.5 (Baseline)			11.5 (Baseline)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6		End of Project	PIE	

Project Intermediate Indicators	Indicator level	Unit of Measure	Cumulative Target Values																			Frequency	Responsibility	Comments		
			Baseline		2018		2019		2020		2021		2022		2023		2024		2025		End Target					
			Year	Value	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Year				Target	Actual
400kV transmission line constructed	Project	Km	2018	0	0	0	-	0	-	0	-	0	-	0	15		20		27			27		Annually	PIE	
230 kV transmission line constructed	Project	Km	2018	0	0	0	-	0	-	0	-	0	-	0	-		12		19			19		Annually	PIE	
230 kV GIS substations constructed	Project	No.	2018	0	0	0	-	0	-	0	-	0	-	0	-		1		2			2		Annually	PIE	
230 kV line bays constructed	Project	No.	2018	0	0	0	-	0	-	0	-	0	-	0	-		1		2			2		Annually	PIE	