# 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:	⊠Loan:120.00 US Dollar million □Guarantee	million Lead Co-financier (s):  □Guarantee										
ES category:	В	Borrowing Entity:	Ministry of Finance, Bangladesh									
Implementing Entity:	Power Grid Company of Bangla	desh 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 sit Dec, 2020 Review meeting conducted virt Sep, 2021 Review meeting conducted virt Apr, 2022 Multiple virtual implementation Aug, 2022 Site Visit with ES specialists Jan, 2023 Meeting with PIE Aug, 2023 Meeting with PIE Feb, 2024 Site visit with ES specialists	ually										
Planned Site Visits by	Aug, 2024											
AIIB:	Review meeting											
Current Red Flags	1											
Assigned:												
Current Monitoring Regime:	Regular Monitoring											
Previous Red Flags Assigned:	1											
Previous Red Flags Assigned Date:	2023/09											

### 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:	26.67	Latest disbursement (amount/date):	12.16/Apr. 03, 2024
Undisbursed:	93.33	Disbursement Ratio (%)1:	22.22

## 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, AllB has recently issued multiple Special Commitment letters as a way of loan disbursement.

<sup>&</sup>lt;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.

0	Dhariad Darana	Environmental & Social	D
Components	Physical Progress	Compliance	Procurement
Component 1: Procurement of material & equipment and necessary installation work including design, erection, testing, and commissioning for Anowara to Anandabazar (New Mooring) 400 kV	31%	The consultant has been onboarded by PGCB (PIE) for ESMP Implementation	The contract was signed in December 2021 and became effective in March 2022.
double circuit overhead line portion: approx. 19.932 km			
Component 2:	19%	The consultant has been onboarded	The contract was signed in
Procurement of material & equipment and		by PGCB (PIE) for ESMP Implementation	December 2022 and became effective in May 2023.
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.			
Component 3:	30%	The consultant has been onboarded	The contract was signed in
Procurement of		by PGCB (PIE) for ESMP	March 2022 and became
material &		Implementation	effective in June 2022.
equipment and necessary			
installation works			
including design,			
erection, testing,			
and commissioning			
for 230/132 kV GIS Substation:			

Anandabazar (New Mooring) with 2x350/450 MVA 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
2x350/450 MVA 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
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
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
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
Substation: Khulshi with 2x350/450 MVA 230/132 kV and 3x80/120 MVA 132/33 kV transformer; Two nos. 230 kV GIS bay
with 2x350/450 MVA 230/132 kV and 3x80/120 MVA 132/33 kV transformer; Two nos. 230 kV GIS bay
MVA 230/132 kV and 3x80/120 MVA 132/33 kV transformer; Two nos. 230 kV GIS bay
and 3x80/120 MVA 132/33 kV transformer; Two nos. 230 kV GIS bay
132/33 kV transformer; Two nos. 230 kV GIS bay
transformer; Two nos. 230 kV GIS bay
nos. 230 kV GIS bay
'
extension at
Madunaghat
Substation, two
nos. 230kV GIS bay
extension at
Khulshi Substation.

#### Financial Management:

PIE submitted its first Audit Report for the year 2019-2022, prepared by the central audit department (FAPAD) of the Government of Bangladesh, in April 2023. Latest audit report for the year 2022-23 is pending; FAPAD is currently conducting the audit and expected to be published in two months.

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

At the PGCB entity level, GRM is in place. Also, a project-level Grievance Redress Committee is also functional.

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

**Project Outcome Indicators:** 

- 1. Capacity of power transmission 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:



			Cumula	nulative Target Values																						
	Indicator level	Unit of Measure	Baseline		2017		2018		2019		2020		2021		2022		2023		2024		End Target			Frequency	Responsibility	Comments
			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)	-	-	-	-	-	-	-	1	ı	-	-	-			1400		End of Project	PIE	
Additional electricity transmitted annually	Project	GWh	2018	0 (Baseline)			0 (Baseline)	÷	-	-	-	=	-	-	ı	÷	-	-	-			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			Cumula	itive Target	get Values																					
		Unit of Measure	Baseline		2018		2019		2020		2021		2022		2023		2024		2025		End Target			Frequency	Responsibility	Comments
			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	0	20		27			27		Annually	PIE	
230 kV transmission line constructed	Project	Km	2018	0	0	0	-	0	0.	0	1	0		0	0.	0	12		19			19		Annually	PIE	
230 kV GIS substations constructed	Project	No.	2018	0	0	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	=	0	1		2			2		Annually	PIE	