



# AIIB FUNDED POWER SYSTEM UPGRADE AND EXPANSION PROJECT PROMOTES COAL & OTHER FOSSIL FUELS

## PROJECT BRIEF

### NAME OF THE PROJECT

Power System Upgrade and Expansion Project (PSUEP)

### PROJECT LOCATION

25 Unions in 8 Upazilas under Chittagong (Chattogram) Region

### DATE OF APPROVAL

26 March 2019

### PROJECT PERIOD

45 Months (1 Apr 2019 - 31 Dec 2022)

### PROJECT ACTIVITY

27 km 400 kV Transmission Lines | 19 km 230 kV Transmission Lines | 2 Substations (230/132 kV) | 2 Bay Extensions (230 kV)

### ENVIRONMENTAL & SOCIAL RISK

Category 'B' (AIIB Policy)  
Category 'Red' (Bangladesh Policy)

### EXECUTING AGENCY

Power Grid Company of Bangladesh (PGCB)

### FINANCING AGENCY

Asian Infrastructure Investment Bank (AIIB)

### Total Budget: USD 176.60 million

AIIB Loan: USD 120 million  
GOB Contribution: USD 46.39 million  
PGCB Contribution: USD 10.21 million

### ESIA CONSULTANT

Center for Environmental and Geographic Information Services (CEGIS)

### PREPARED BY



## BACKGROUND

Bangladesh is one of the highly populated lower middle-income country which is rapidly trying to be graduated as a middle income country instead of high climate vulnerability and disparity of income distributions. 82.2% richest quintiles in rural Bangladesh has access to the electricity while the percentage of electricity connection is as low as 37.1% among the poorest quintiles. After winning the general election in December 2008, the Grand Alliance government (led by the Bangladesh Awami League) planned to boost electricity generation to promote rapid economic development. The GOB has deregulated administrative control to attract private investment in the energy sector.

After policy reformation on energy sector, a number of new bilateral investors started implementing a number of energy projects besides the traditional and new multilateral financial institutes including World Bank, Islamic Development Bank (IsDB), Asian Development Bank (ADB) and Asian Infrastructure Investment Bank (AIIB). Till November 2019, AIIB has invested USD 405.00 million in four energy-related projects in Bangladesh. Power System Upgrade and Expansion Project (PSUEP) in Chattogram zone is one of the stand-alone projects to be implemented by Power Grid Company of Bangladesh (PGCB), a state-owned enterprise under Bangladesh Power Development Board (BPDB).

The project has five components: (i) Anowara to Anandabazar 400 kV double-circuit transmission line: 20 km long overhead transmission line and 7 km long underground cable; (ii) Hathazari to Rampur 230 kV double-circuit underground cable at Anandabazar (iii) Madunaghat to Khulshi 230 kV double-circuit underground cable: 16 km long; (iv) 230/132 kV GIS substation at Anandabazar with two 350/450 MVA transformers; (v) 230/132/33 kV GIS substation at Khulshi with two 350/450 MVA (230/132kV) and three 80/120MVA (132/33kV) transformers and (vi) two bay extensions at 230 kV GIS substation at Madunaghat.

Chattogram (formerly Chittagong) on the south east-ern coast is Bangladesh's second largest city. The Chattogram zone is an industrial and commercial hub, contributing around 40% of the country's industrial output and 80% of its international trade. It forms part of a coastal stretch with numerous power plants, including 13 new coal power plants either proposed or under construction. The AIIB says the project will promote Bangladesh's goal to provide electricity for all by 2021. However, available documentation does not clarify if and how poor communities will benefit (BIC, 2019)

## OBSERVATIONS

### Link with the Coal Expansion

The objective of the project is contrary. It intends to upgrade and expand the power transmission system in Chattogram zone to ensure adequate and reliable power supply. But the reality is 91% people of the zone has already

covered under national grid. So, the project is obviously not for the communities in Chattogram. Rather there is a clear link between AIIB financed PSEUP and coal power plants surrounding Chattogram-Cox's Bazar zone. The PGCB has already signed an agreement with KEC as EPC Contractor for 214 km Matarbari-Madunaghat-Meghnaghat 400 kV transmission line under JICA funded project while AIIB is financing for 16 km long Madunaghat - Khulshi 230 kV double-circuit underground transmission line which will only support to transmit the power generated by the current and future coal power plants.

### Land Acquisition

A total land of 85.42 hectares (211.08 acres) will be taken as Right-of-Way (ROW) from local inhabitants. Among the land 36.66% is densely covered by buildings, 35.72% agricultural land, 17.90% settlements, 6.58% village orchards and 2.50% Rivers and Khals. 279 families will be affected directly as the high voltage underground and overhead transmission line and towers will be established on their lands. 2,396 trees will be cut and 76 residents will also be affected by the project directly due to overhead transmission lines.

The market price for lands are estimated per decimal (0.01 acre) as BDT 100,000 – 150,000 for agricultural land, BDT 500,000 – 750,000 for homestead land and BDT 1,200,000 –1,500,000 for commercial lands which is almost one third of the actual market price.

Double cropping is practiced in most of the study area with triple cropping also being practiced in some areas of the land which are to be taken by PGCB. The ESIA report claimed that the cropping intensity of the overall study area is about 159 percent, although other research reports has shown that the crop intensity is 191-232 percent in the area. So, the calculation of crop compensation is around half of the reality.

Other 823 households and their 426.16 hectares (1,053.06 acres) of land will be

affected indirectly. Among the indirectly affected lands, 37.10% is agricultural land, 36.39% densely covered by buildings, 18.90% rural settlements, 3.08% village orchards and 2.66% rivers and khals.

According to the ESIA report, shopkeepers of 96 big, 162 medium and 307 temporary shops will be affected temporarily due to construction works. But only 14 days of income for 565 shopkeepers are allocated in the Environmental and Social Management Plan for the project. But according to the project implementation plan and procedures, it will take at least three months to complete each segment of the construction.

### Carbon Emission

According to the ESIA report, a total of 6.885 million tonnes of carbon-dioxide (CO<sub>2</sub>e) will be emitted from the transmission lines, construction sites and transmission equipment, if they are managed carefully. Among the emissions, 6.03 million tonnes will be emitted from transmission lines, 0.075 million from construction works and 0.78 million tonnes from circuit breakers. But there is no plan in the ESMP of the project to reduce carbon emission or mitigation.

### DEMANDS

1. Stop constructing infrastructures which facilitate expansion any fossil fuel based development including coal, oil and gas and promoting renewable energy in Bangladesh.
2. Adopt and implement a detail plan for reducing emission from transmission and construction, and to mitigate the emission in the project site itself.
3. Allocate adequate compensation for lands as well as the households and shopkeepers according to the period of interruption and temporary loss of livelihoods.
4. Ensure compensation for the land owners of Right-of-Way every year as they will be affected permanently due to the overhead and underground transmission lines.
5. Prepare a comprehensive livelihood restoration plan for both direct and indirectly affected people including female smallholders of the area.
6. Initiate a cumulative impact assessment of different power plants and transmission lines in Chattogram zone



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