

# Initial Environmental Examination

---

Project Number: 55040-001  
September 2023

## Bangladesh: Dhaka Power System Expansion and Strengthening Project

### Main Report Part 3

Prepared by Ministry of Power, Energy and Mineral Resources for the Asian Development Bank.

This initial environmental examination is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. Your attention is directed to the [“terms of use”](#) section on ADB's website.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

## 6. Alternative Analyses

### 6.1 Introduction

Alternative analysis is an analytical comparison of the suitability of alternative locations and solutions. It focuses on identification and analysis of alternatives to avoid, minimize or mitigate impacts or risks. Alternatives in environmental studies can be analyzed and compared in terms of a 'No Action' option with the proposed 'Action Option(s)'. No action option is basically a No Project Scenario as it defines the present scenario as is – illustrating the present scenario without any interventions but continuing as business as usual.

### 6.2 No Project Scenario

The main objective of producing the power is distributing it to the consumers. Under this project, substations and transmission and distribution lines are proposed to be constructed to distribute the power from the substations to consumers who are the ultimate beneficiaries of the power production. The proposed interventions under this Project will help to expand and strengthen the existing distribution network of DESCO, fulfilling their current and future power demand and improving of the socio-economic scenario by distributing quality power to the consumers. Without these proposed infrastructures the power generated will not be distributed by DESCO. The no project alternative would have no direct negative environmental impacts since no construction works would be involved and induced urban development due to the provision of improved electricity supply would not occur. However, socioeconomic benefits would not be realized. As a result, No Project Scenario has been seen as “not an acceptable” option to government.

### 6.3 Types of Transmission and Distribution Lines

The main alternatives for distribution and transmission lines comes from consideration of whether to have the line underground, overhead or with combination of both.

Underground transmission cables require a lot of excavation and trenching works. This results in higher construction costs as well as the additional expense on underground cables compared to conductors. The costs of maintenance works involved for underground cables are significantly higher. Underground cables are thus only preferred where overhead lines are not feasible due to environmental and social constraints e.g., in urban areas where tower footings or conductor stringing procedures become issues for installation. But underground cables have advantages in urban areas. The project is in Dhaka, the capital and busiest city of Bangladesh where it is quite impossible to find suitable right of way for overhead high voltage transmission and distribution lines (132 kV and 33 kV) due to required safety clearances. Thus, for 132 kV and 33 kV as well as 50% of 11 kV lines, underground cable type has been selected. It can be mentioned here that 132 kV overhead lines require four pole transmission towers and 33 kV overhead lines need comparatively large one pole towers. Since 11kV and 0.4 kV distribution lines need only one pole towers and these can mostly be set in the footpath/sideways of the main roads which does not need any special land/right of way the additional cost of the underground cable is not usually warranted. That is why overhead types for has been selected for 50% of 11 kV and 0.4 kV lines under this project. For overhead lines there is also the option of bare conductors or covered conductors to consider, the latter has been selected as safer and more climate resilient.

For this project, a combination of overhead lines and underground cables is preferred.

#### 6.4 RoW Options and Comparison

The following criteria were considered for selecting the alignment of the routes:

- Location of substations;
- Length of the lines; and
- Considering routing existing power distribution lines.

Routes proposed for 132 kV and 33 kV lines have been physically observed during field visit. From the field visit findings, it was found that every route selected had some limitations and advantages compared to one another. Suitable routes have been proposed by DESCO considering the possible positives and the negative impacts anticipated after survey and also considering cost of installation. Route follow mainly the roa dways and that is the best right of way for underground lines in urban area. In all respects, mature trees and settlement areas/high-rise structures are avoided while selecting the routes. The river crossings have also been minimized to the extent possible given the project location.

#### 6.5 Underground Cable Construction Method

The two options considered are HDD and open trench. The latter is preferred primarily on costs grounds but where there are environmental or social sensitivities e.g., road and river crossings then the HDD option will be used.

**Table 6.1: Comparison of Construction Methods**

HDD	Open Trench

#### 6.6 Types of Switchyards

There are generally two technology options for the substations: more conventional air insulated switchgear (AIS); or technologically more advanced gas insulated switchgear (GIS). Many technical

differences are involved in construction of the two types of substations. The AIS uses air as the primary dielectric from phase to phase, and phase to ground insulation. This type of switchyard have been in use for years before the introduction of GIS. Most substations across Bangladesh are AIS. These are in extensive use in areas where space, weather conditions, seismic occurrences, and environmental concerns are not an issue such as rural areas and favorable offsite terrains. In the GIS system, all the live components are enclosed in a grounded metal enclosure and the whole system is housed in a chamber full of gas. Gas insulated switchgears (GIS) primarily use Sulphur hexafluoride gas (SF<sub>6</sub>) as the primary insulation. Though a greenhouse gas, SF<sub>6</sub> is non-toxic, maintains atomic and molecular properties even at high voltages, high cooling properties, and superior arc quenching properties. In addition, it is safe. SF<sub>6</sub> has superior dielectric properties compared to other gases; thereby providing favorable insulation for the phase to phase and phase to ground moderation. In the substation setup, the gas is contained in a grounded metal enclosure containing the conductors, current and voltage transformers, circuit breaker interrupters and switches. Though the cost of GIS substations is substantially higher compared to the AIS system, GIS substations have been selected for the proposed project primarily in view of the much smaller land requirements since availability of large land parcel could be quite difficult and expensive in the Dhaka area. In addition, GIS systems are more reliable, safer to operate and maintain, pose minimal safety risks to the local communities, and easier to install.

### **6.7 Site for Substations**

Substation sites for the project have been selected by DESCO and they have already acquired the land. In a city like Dhaka, available land is scarce. Here most of the land is acquired by or donated to DESCO from authorities and/or organizations who need a stable power supply. Several sites were considered before selecting the final. For example, at Airport substation the original proposal was to infill a waterbody but given the importance of the waterbody for urban drainage this was avoided by selecting an alternative site nearby to the original proposal.

The evaluation which was applied by DESCO for site selection for the substations is presented in Table 6.2.

Table 6.2: Substation Site Evaluation

Criteria	Indicator	Airport	Kalshi (Mirpur)	Bashundhara	Tongi	Purbachal	Kalachadpur (Baridhara)	Uttara (Rupayan City)	Mirpur Ceramics (Mirpur)
Minimum disturbance to society	Number of settlements to be rehabilitated	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Population density in surrounding area	Moderate	Moderate	Moderate	Moderate	Moderate	High	Moderate	Moderate
	Occurrence of archeological site	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Sensitive cultural heritage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Occurrence of city at downwind direction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Minimum disruption to water resources	Obstruction to drainage system	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Presence of water body	N/A	N/A	N/A	Water logged area	N/A	N/A	N/A	N/A
Minimum use of agricultural/ fisheries land	Agricultural land under the project area	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Fisheries habitat (natural and aquaculture)	N/A	N/A	N/A	Moderate <sup>38</sup>	N/A	N/A	N/A	N/A
	Fish landing sites/centers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Minimum Ecosystem destruction	Occurrence of sensitive ecosystem	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Habitat of sensitive species	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Distance from Project boundary to nearest boundary of ECA <sub>2</sub>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<sup>38</sup> For approximately one year some aquaculture activities are being undertaken in the temporary water body by employees of the Housing Corporation and some of the local residents. The temporary water body will be gradually infilled by the Housing Corporation who is the landowner subject to EC. This also applies to the proposed DESCO SS site. As a consequence, the aquaculture activities will have to stop. This is accepted by the employees and the residents involved.

Criteria	Indicator	Airport	Kalshi (Mirpur)	Bashundhara	Tongi	Purbachal	Kalachadpur (Baridhara)	Uttara (Rupayan City)	Mirpur Ceramics (Mirpur)
Construction facilitation	Available route of construction material transportation	Available	Available	Available	Available	Available	Available	Available	Available
	Availability of sand for land filling	Available	Available	Available	Available	Available	Available	Available	Available
	Availability of local labor	Available	Available	Available	Available	Available	Available	Available	Available
	Extent of erosion	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Communication	Road communication	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
	Railway communication	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Waterway communication	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A





## 7. Important Environmental and Social Components

### 7.1 Overview

The Important Environmental and Social Components (IESCs) likely to be impacted by the proposed interventions were selected and the rationales for their selection are presented below.

### 7.2 IESCs Related to the Project and Their Relation

Important Environmental Components (IECs) for the Physical Environment and Water Resources, Land Use and Agricultural Resources, and Ecological Resources along with their rationales are described in the following Tables 7.1- 7.4.

**Table 7.1: IECs on Physical Environment and Water Resources**

IECs	Rationale for selection
Noise and Vibration Levels	Noise and vibration will be generated from the equipment and machinery to be used in the construction work including the demolition and open trenching activities. Therefore, noise levels have been considered as an IESC.
Air Quality	Construction works, especially demolition and open trenching and movement of construction vehicles might emit dust and other air pollutants in a degraded airshed. Hence, air quality has been considered as an IESC.
Water Quality and Resources	Leakage of fuel, oil and chemicals may spill over to nearby waterbodies or groundwater through the storm water drainage. Sediment laden runoff may also enter nearby waterbodies during construction. Untreated sanitary effluent may also enter surface or ground water. Water (groundwater) is needed for both construction and operation of the substations. Henceforth, water quality and resources have been considered as an IESC.
Floods and Waterlogging	Surface water drainage and groundwater recharge will be affected by the introduction of substations to currently undeveloped sites; therefore, floods and waterlogging have been considered as an IESC.
Natural Resources	Raw materials will be required for construction. Large volume of sand in particular will be required for the infill of Tongi substation. Therefore, use of natural resources has been considered as an IESC.
Solid and Hazardous Waste	Solid and hazardous waste will be generated from the construction of transmission and distribution lines and the installation of sub-stations. The demolition activities, too, will generate waste. There will also be waste generated from substation operation. Therefore, solid waste has been considered as an IESC.
Climate change	SF <sub>6</sub> , a potent greenhouse gas is used as an insulation agent at the GIS-type substations. Its emission represents an environmental risk. Hence, climate change has been considered as an IESC.

**Table 7.2: IECs on Land Use and Agriculture Resources**

IECs	Rationale for Selection
Land Use including Crop Production	Construction of power distribution facilities might induce the expansion of residential, commercial and industrial activities and thus change the land use of the intervened area. Hence, land use has been selected as an IESC.

IECs	Rationale for Selection
Soil Quality	Construction will result in the loss of topsoil and subsoil beneath the substation sites. Leakage of fuel, oil and chemicals may spill to soil. Therefore, soil quality have been considered as an IESC.

**Table 7.3: IECs on Ecological and Fisheries Resources**

IECs	Rationale of Selection
Flora and fauna	Construction of sub-station and transmission and distribution lines might cause the clearance of vegetation and affect the habitat of dependent wildlife. For this reason, flora and fauna has been considered as an IESC.
Wetland habitat	Land development of the project area at Tongi substation may alter the bird and fish habitat condition permanently. In this context, wetland habitat condition has been considered as an IESC.

**Table 7.4: ISCs on Socio-economic Resources and Their Rationales**

ISCs	Rationale of Selection
Employment Opportunity	Each of the steps of the Project might involve different levels of workers. Hence, employment opportunity has been selected as an IESC.
Occupational Health & Safety	Occupational Health and Safety (OHS) for the workers and DESCO employees is deemed important throughout the project from the construction to the operational phases. There are risks from undertaking working at height and working with electricity, risks associated with unsanitary conditions, communicable diseases etc. Therefore, occupational health and safety has been selected as an IESC.
Community Health & Safety	Trenching and installation of overhead lines and construction of substations might cause disturbance to the local community. There will be risks from construction, road closures/traffic congestion, and electrical infrastructure presence during operation. The construction workers may also introduce risk of social conflict, communicable disease etc. For this reason, community health and safety has been selected as an IESC.
Property and Physical Cultural Resources	Given the close proximity of substations and need for piling the adjacent properties may be damaged by vibration. They may also be inadvertently damaged during the construction works for cable laying and overhead line works. Private property and physical cultural resources are therefore selected as an IESC.
Underground and Overhead Public Utilities	Underground and overhead public utility infrastructures including gas, water, sewerage, and telecommunication lines might be affected by the trenching activities of electric cable laying and overhead line works. Thus, it is selected as an IESC.
Roads and Traffic Levels	There is an increased potential for traffic disruption and disruption to pedestrians and vehicles due the cable laying and overhead line works along and across roads. For this reason, traffic disruption has been considered as an IESC.
Electricity Supply	Installation of substations in conjunction with the transmission and distribution lines might affect the distribution capacity of power along with quality. In this regard, distribution capacity and quality service is considered as an IESC.

## **8. Potential Impact Prediction and Analysis**

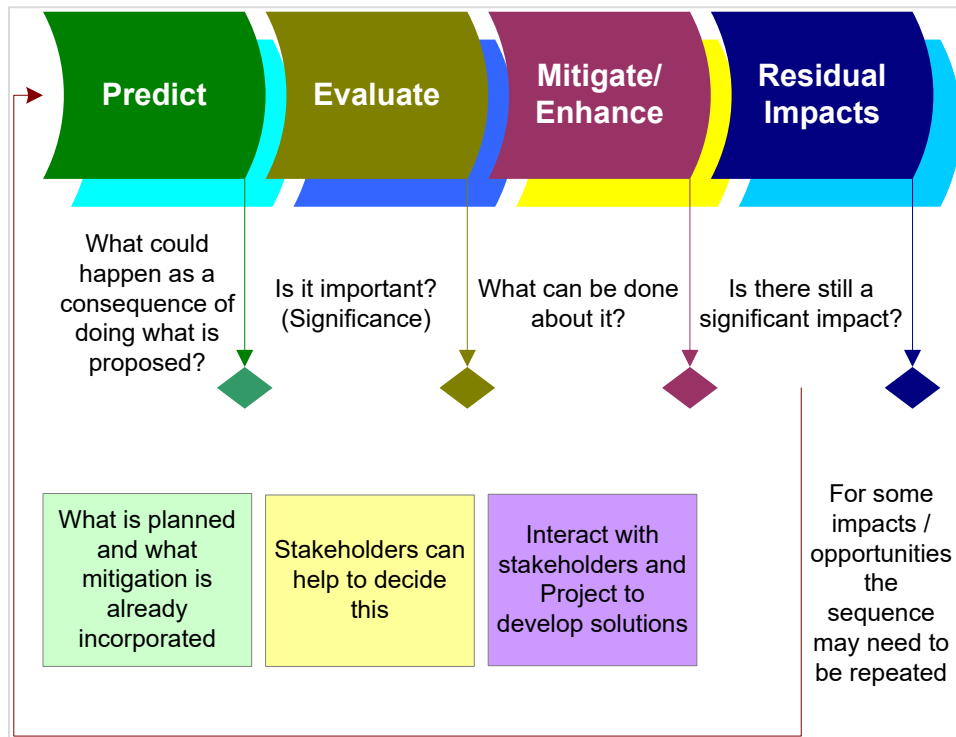
### **8.1 Scope of the Assessment**

The scope of the assessment captures the understanding of the envisaged impacts and risks assessed during the scoping exercise of this EIA study as well as the impacts and risks identified during the subsequent baseline assessment and impact evaluation process. The key environmental and social issues and risks identified are further elaborated in the following sections.

### **8.2 Impact Assessment Methodology**

Impact identification and assessment starts with scoping of project intervention(s) and associated activities as discussed in Chapter 4. This section assesses potential impacts and risks in a manner in which the Project interacts with the elements of the physical, biological, socioeconomic-cultural or human environment to render impacts to resources/receptors. The feasibility study, field surveys including environmental quality baseline monitoring, ecological surveys, social survey and stakeholder consultations assist in assessing impacts. Impacts that are positive, negative, direct, or indirect, cumulative, or induced are considered. The steps of impact assessment are summarized in Figure 8.1 and comprise of:

- Impact prediction: to determine what could potentially happen to resources/receptors as a consequence of the Project and its associated activities.
- Impact evaluation: to evaluate the significance of the predicted impacts by considering their magnitude and likelihood of occurrence, and the sensitivity, value and/or importance of the affected resource/receptor.
- Mitigation and enhancement: to identify appropriate and justified measures to mitigate negative impacts and enhance positive impacts.
- Residual impact evaluation: to evaluate the significance of residual impacts assuming effective implementation of mitigation and enhancement measures during project implementation.



**Figure 8.1: Impact Assessment Process**

The significance of potential impacts was assessed using the criteria and methodology given below:

### 8.2.1 Project Activities

The project activities are defined for which the impacts and risks on the resources/receptors are assessed. The EIA study has considered the activities to be involved in the construction of substations with associated transmission and distribution lines in three phases, i.e., design and pre-construction, project construction, and operation and maintenance. In chapter 4 phase wise activities have been determined.

### 8.2.2 Receptors

The "medium" (e.g., soil/air/water/property/roads) or 'organism' (e.g., flora/fauna/humans) affected by the impact or risk (such as the release of a pollutant or contaminant, noise emitted or generated from an activity of the project etc.) is called a receptor. The resources/receptors may be physical, biological, or socioeconomic-cultural. In this EIA study, the receptor related information is provided in the baseline information.

### 8.2.3 Sensitivity of Receptor

In addition to characterizing the magnitude of an impact or risk, the other principal impact evaluation step is definition of the sensitivity/vulnerability/importance of the impacted resource/receptor. It will remain the same pre- and post-mitigation. There are a range of factors that were taken into account when defining the sensitivity/ vulnerability/importance of the resource/receptor, such as legal protection and stakeholder views. The sensitivity/vulnerability/importance designations used herein for all resources/receptors are:

- Low – individual or local community receptor, issue of individual or local community concern, no exceedance of standards/guidelines, large carrying capacity headroom, good

ability to absorb proposed changes, below average vulnerability, or, many opportunities for mitigation

- Medium – district importance, issue of district concern, no exceedance of standards/guidelines, limited carrying capacity headroom, receptor with some ability to absorb proposed changes, average vulnerability, or some opportunities for mitigation
- High – national importance, issue of national concern, some baseline exceedance of standards/guidelines, no carrying capacity headroom, receptor with little ability to absorb proposed changes, above average vulnerability, or limited opportunities for mitigation
- Very High – international importance, issue of global concern, large baseline exceedance of standards/guidelines, carrying capacity already far exceeded, receptor with no ability to absorb proposed changes, far above average vulnerability, or no opportunities for mitigation

#### 8.2.4 Impact Prediction

Prediction of impacts and risks was carried out with an objective to determine what is likely to happen to the resources/receptors of the environment as a consequence of the Project and its associated activities. From the potentially significant interactions identified in scoping the impacts to the various resources/receptors were elaborated and evaluated considering magnitude taking into account embedded controls and the significance.

#### 8.2.5 Impact Magnitude

The potential impacts and risks of the project have been categorized as major, moderate, minor or minimal based on consideration of the parameters such as: i) scale (impacts) or consequence (risk); ii) duration; iii) spatial extent; iv) reversibility; and v) compliance to standards/guidelines before Mitigation Measures are adopted. The magnitude of potential impacts and risks of the Project has generally been identified according to the categories outlined in Table 8.1. The above characteristics and definitions apply to planned and unplanned events. An additional characteristic that pertains only to assessing unplanned events is likelihood. The likelihood of an unplanned event occurring during normal operating conditions or construction was designated using a qualitative scale, as described in Table 8.1.

**Table 8.1: Definition and Scaling of Designations**

Parameter	4 (Major)	3 (Moderate)	2 (Minor)	1 (Minimal)
Temporal extent	Very long term (More than 1 year)	Long Term (More than 1 month)	Short Term (Less than 1 month)	Very short term (Less than 1 week)
Spatial extent	Widespread far beyond project boundaries (>500m)	Beyond immediate project components, site boundaries or local area (<500m)	Within project boundary	Specific location within project component or site boundaries
Reversibility	Effectively permanent, requiring considerable intervention to	Requires a year or so for recovering with some interventions to return to baseline	Baseline returns naturally or with limited intervention within a few months	Baseline remains almost constant

Parameter	4 (Major)	3 (Moderate)	2 (Minor)	1 (Minimal)
	return to baseline			
Compliance with Legal Standards/Guidelines before Mitigation Measures	Breaches national standards and international guidelines/ obligations	Complies with international guidelines/obligations but breaches more stringent national standards	Complies with national standards but breaches more stringent international guidelines/obligations	Not applicable
Likelihood of occurrence	Certain -- probability greater than 90%	Probability greater than 50% and less than 90%	Probability greater than 20% and less than 50%	Probability less than 20%

Once impact characteristics were defined, each impact was assigned a ‘magnitude’ of impact. Magnitude is typically a function of a combination (depending on the resource/receptor in question) of the above impact characteristics, considering the embedded control measures. In case of unplanned events only such as an accident, the magnitude incorporates the ‘likelihood’ factor as discussed above.

**8.2.6 Embedded Control Measures**

The abatement measures that are already considered in the implementation of a Project and dealt in the Project design and description are termed as embedded control measures. The control measure may be a device, or set of devices, that manages, commands, directs or regulates the behavior or functions of other devices or systems. Control, Protection, Substation Automation and Metering, Earthing and Lightning Protection, Automatic Fire Fighting Systems etc. are embedded control measures for substations. It is important to note that impact prediction and evaluation considers any embedded controls (i.e., controls that are already planned as part of the Project design) regardless of the results of the Scoping Process which may flag impacts without having taken into account these controls.

**8.2.7 Impact Significance**

Once magnitude of impact and sensitivity/ vulnerability/ importance of resource/ receptor have been characterized, the significance was assigned for each impact. Impact significance is designated using the matrix shown in **Table 8.2**.

**Table 8.2: Impact and Risk Matrix of Significance**

Magnitude of Risk/ Impact	Sensitivity of Receptors			
	Very High (4)	High (3)	Medium (2)	Low (1)
Major (4)	Critical (16)	Major (12)	Moderate (8)	Minor(4)
Moderate (3)	Major (12)	Major (9)	Moderate (6)	Minimal (3)
Minor (2)	Moderate (8)	Moderate (6)	Minor (4)	Minimal (2)
Minimal (1)	Minor (4)	Minimal (3)	Minimal (2)	Minimal (1)

### 8.3 Summary of Assessed Impacts

The project's potential impacts and their significance have been assessed using the methodology described in the above sections, as follows. The most significant impacts will occur during the construction phases of the project.

#### 8.3.1 *Pre-construction/ Detailed Design Phase*

Pre-construction and detailed design activities will include securing renewal of the national environmental clearance and other permissions, ensuring the EMP measures are reflected in bidding and contract documents during the procurement of contractors for construction work and goods supply, detailed design and updates to IEE once final siting and route alignments are determined, and establishing the contractor's environment, health, and safety (EHS) management arrangements to mitigate construction related impacts. The latter will include employing EHS staff, training and awareness raisings, and the development of a construction environmental management plan (CEMP) including health and safety risk assessments and health and safety plans to provide details on how the contractor plans to implement the project EMP and relevant parts of the IFC EHS Guidelines on Construction and Demolition etc. The CEMP will identify the temporary construction facilities required for the construction package be that for the substations, transmission or distribution lines e.g., laydown area, stores, temporary workers facilities etc. There will also be surveying of the substations and route alignments to inform the detailed design, employment of construction workers, and procurement of equipment and materials to transport to the site ready for their installation. For the demolition of buildings, it will need to be ensured that asbestos survey is conducted by a competent surveyor and if found (although not anticipated based on field visits) an asbestos remedial action plan will need to be developed for implementation during the demolition. For detailed designs, seismic design, pollution prevention (see EMP) and climate adaptation requirements (see Chapter 4) will be reflected.

Substation sites and the indicative routes (132 kV and 33kV) have been selected to minimize impacts to the extent possible given the urban location. In finalizing the route alignments it will need to be ensured that they have no greater impact than that predicted in this EIA report. No protected area, internationally or nationally important biodiversity or physical cultural resources will be impacted. Given the urban setting of the proposed substation sites only about 70 trees will need to be cut, to be compensated for with three trees planted to each one cut. Felling of trees along the cable routes will be reduced to the absolute minimum and avoided, wherever possible. There are no indigenous people in the Project Area, nor will any involuntary resettlement be required for substation construction. A resettlement plan has been prepared to be followed in the event there are very short term, temporary involuntary income losses to business due to the installation of overhead lines and construction of underground cables. There are many sensitive receptors present adjacent to the sites/routes and lack of compliance with national laws and regulations and ADB's Safeguard Policy Statement 2009 can occur if requirements in pre-construction and detailed design are not followed. Thus, no works including site establishment and vegetation clearance will commence on site until DESCO has approved the detailed designs (after having received ADB clearance of their IEE update in respect of final alignments for the transmission and distribution lines) and CEMP because if not properly planned in the pre-construction stage, the construction phase could have potentially significant impacts on the natural and human environment because of environmental degradation and exposing the construction and O&M workers as well the local community to health and safety risks. There might also be unresolved community grievances and increased conflict during construction due to lack of meaningful consultations, information disclosure and community awareness raising activities prior to works and no opportunities to raise concerns due to the lack of an operational Grievance Redress Mechanism (GRM).

Specific to Tongi substation, the landowner intends to infill 0.3 ha or about 10% of the 3ha waterbody, raise the level of the site, and donate the land to DESCO for the purpose of building a substation to support its planned development of this area. However, as there is uncertainty regarding the status of the landowner's EIA approval for these infilling works, DESCO will secure clearance for them from DOE itself pre-construction. As the landowner will undertake these works, DESCO will supervise and monitor them to ensure the project EMP is followed and that works are consistent with ADB's Safeguard Policy Statement (2009) requirements. The demolition of the buildings at two substation sites (Airport and Bashundhara) will be done by the landowner before handover to DESCO. Prior to taking over these sites DESCO will recommend to the Civil Aviation Authority and housing developer that asbestos survey is completed before demolition, confirm if this was followed, and that all demolition material/waste has been removed from site such that it is "clean" for construction prior to taking over the land.

### **8.3.2 Construction Phase (including Site Preparation by 3<sup>rd</sup> parties)**

Due to the densely populated urban setting many receptors will be affected by the construction impacts that occur. The most significant impacts are discussed in this section and include increased noise and vibration, increased dust, and traffic levels during construction. Demolition of existing buildings, site clearance, and the need for piling to facilitate new substation construction will further increase noise, vibration and dust levels, especially at Kalachandpur substation where residential apartments are immediately adjacent to the site. Temporary road blockages will be required, causing delays and congestion. Occupational and community health and safety risks will also be present. The potential for accidents will be increased, especially during the underground cable laying and overhead line works in the public domain. The underground cables will be laid in sections within the existing roads. Some underground cables will be laid using HDD where there are environmental and social sensitivities to be avoided which is the preferred option to minimize disruption and disturbance but, in most cases, on cost grounds, open trenching will be used. There is the potential for injury to pedestrians.

The potential environmental impacts of the project are all well understood and can be mitigated by DESCO through adherence to national requirements and international good practice measures and standards as set out in the IFC General and Electric Power Transmission and Distribution Environment, Health and Safety Guidelines and the ILO Code of Practice on Safety and Health in Construction. Mitigation measures have been developed for all predicted adverse impacts and risks. However, there will remain high potential for grievances given the highly populated urban environment, and DESCO will set up during pre-construction a grievance redress mechanism for workers and local communities as well as ensuring works are proceeded by extensive community consultation and advance information dissemination so the community are well aware of what is taking place and when.

#### *Noise and Vibration Levels*

Noise and vibration will be the most significant impact and will contribute to cumulative noise from the large number of construction projects and busy urban environment in Dhaka city. Baseline noise monitoring which was undertaken around the proposed substation sites in 2022 illustrated that in most cases the noise standards/guidelines were usually complied with. Therefore, it is necessary for compliance with the more stringent of national standards/international guidelines that apply to the zone or receptor to continue during construction. For several substation sites where schools are found within 100m the most stringent standards that apply are those of the Noise Pollution Control Rules, 2006 for silent zones requiring 50dB(A) to be achieved during the daytime and 40dB(A) at night. Where pre-construction 1hr LAeq monitoring shows that the noise levels are already exceeded, any



increase in noise levels caused by the project should be <3dB which is barely noticeable to the human ear.

During site preparation and construction works for the substations, bay extensions, cable laying and overhead line and RMU installation, noise and vibration will be generated by the construction equipment and by the movement of construction traffic. For preparation of 4no. of the substation sites, existing buildings will have to be demolished, thus leading to additional noise particularly at Kalachandpur substation where residential apartments are immediately adjacent to the site and the three-story control building needs to be demolished. The substation foundation piling and road cutting for open trenches will be the other major noisy activities with notable vibration also being generated by the piling work. The typical sequence of construction for these activities is described in Chapter 4. Table 8.3 shows typical construction equipment which may involve noise generation and their typical noise value.

**Table 8.3: Typical List of Noise Generating Construction Equipment and Their Noise Level**

SI	Construction equipment	Noise Level ( dBA)
1	Excavator	80
2	Drill	100
3	Winch	80
4	Piling rig	100-120
5	Pile cap cutter	80-90
6	Rod cutting machine	70-80
7	Truck	65-70
8	Generator	60

Since sound attenuates with distance those closest to construction will be most affected since unmitigated noise from general construction equipment of 85 dBA at 1m would not fall below 70dBA until about 5m, 55 dBA until about 32m distance from the site, 50dBA until about 57m from the site, 45dBA until about 100m from the site and 40dBA until about 178m from the site; it can be approximately calculated using  $SPL_2 = SPL_1 - 20 * \log (R_2 / R_1)$  where:  $SPL_1$  is the Sound Pressure Level at point 1,  $SPL_2$  is the Sound Pressure Level at point 2,  $R_1$  is the distance from the sound source to point 1, and  $R_2$  is the distance from the sound source to point 2. Installation of an engineered acoustic barrier around the substation sites will be able to effectively reduce noise levels by 10-20 dBA, and potentially up to 30dBA can be achieved. For daytime works with proximity of residential receptors within 32-57m such a barrier will be required. If effective in reducing the noise levels down from 85dBA to 65dBA this would enable 55dBA to be achieved at 3.2m, or 50dBA at 5.7m if not high rise when sound can travel upward. Kalachandpur substation and other locations where the high-rise buildings are present will be the most challenging to mitigate as site boundary noise barriers will be less effective with the sound being directed upward. For working near high-rises, it will be more effective to enclose noise sources as well as providing the noise barriers around the site boundary to enable noise levels to be met.

For piling it will not be possible to use the louder types of piling (impact or vibratory hammers) that generate over 85 dBA without resulting in a significant impact because noise from piling equipment of 120 dBA at 1m would not fall below 85dBA, the level at which hearing damage is caused until 57m from the site. Even with a noise barrier to reduce the levels by 20dBA, the level would not fall below 70dBA until 32m from the site, 55dBA until 178m from the site, and 50dBA until 317m from the site assuming no barriers to dispersion. This will be well within earshot of the nearest residential properties at many of the substations. However, the use of auger/screw piling which will generate

noise levels like other construction activities would generate much less noise than impact or vibratory hammers. In any case a detailed site-specific noise and vibration assessment and piling management plan would be required to demonstrate how the contractor will meet the applicable noise and vibration levels.

The entire construction period for each substation site is approximately one year to completion. The number of piles at substations will be defined by the EPC contractor based on the detail design with soil tests to be conducted. However, DESCO's previous experience for construction of similar type of substations shows that around 100 piles will be needed for each of the substations. At a rate of 2-10 piles per day (this depends on piling type) this would potentially take between 10-50 days thus any significant disturbance will be short-medium term. The underground cables will be laid in 500m sections. Each 500m section will take approximately two weeks to complete so noise impacts will be of short duration. For the special crossings, such as the main roads, railways and water ways, Horizontal Directional Drilling (HDD) will be used to pull the cables beneath these obstacles. For HDD a length of approximately 100 m can be prepared within 3-5 days and road surface cutting for entry and exit pits (1 x 1 meter each) will be for a maximum of 1 hour per section, and from equipment operation will be for a maximum of 5 hours intermittent per section so even at 100dB(A) any increase in noise levels will be of very short duration.

In the project area, many other construction projects are taking place at the same time. Thus, these impacts need to be seen within the context of the Project Area's baseline where many other construction activities are ongoing in the urban area, and the noise levels are on occasion already exceeding the national standards. Baseline daytime noise measurements showed that noise levels range from a minimum of 41.3dB(A) near the former proposed substation site at Tongi to a maximum of 66.2dB(A) near the former proposed substation site at Purchabal. Due to this environment, the affected people may be more tolerant of disturbances, but the direct, indirect and cumulative construction impacts still need to be minimized.

The DESCO project will have cumulative noise impacts with other projects in the study area, so mitigation is paramount (see Environmental Management Plan (EMP), Section 11). The contractor will be required to implement noise and vibration mitigation measures, such as adjusting construction working methods, construction period will be kept to a minimum, minimizing the duration of noisy activities, night-time construction in residential areas will be avoided, and placing temporary acoustically designed noise barriers around the equipment with only well-operated and maintained equipment will be employed. Piling and other noisy activities must also only be conducted in the daytime between 10am-12pm and 2-4pm.

Noise pollution will mostly affect adjacent receivers with most impact on those located within up to about 50m, 500m for substations/bay extensions due to piling work. The affected communities need to be kept informed through regular communication. They need to be informed in advance of the works and the scheduling of construction. The best timing depends on the type of sensitive receptors, e.g., daytime and office hours will be best for residential areas, and noisy activities should be avoided during exam periods around schools and during prayer times, religious or cultural events near places of worship.

#### *Air Quality (Dust and Air Emissions)*

The construction activities for the substation sites and the cables/lines will have impacts on air quality due to dust plus vehicle emissions and emissions from the diesel-fuelled equipment. Transport of loose construction materials in uncovered trucks or on unsurfaced roads may also increase the levels of dust. The airshed of the project is already degraded in terms of particulate matter against the WHO guidelines (Chapter 5) so it is necessary to avoid exacerbating the existing pollution during

construction. Dhaka and Gazipur monitoring results show that during the dry period months, November to March, the concentration of particulate matter also exceeded the national standard during 2018-2021 due to higher concentration of particulate matter in the air. Alongside the natural process, the ongoing development activities in Dhaka and Gazipur districts are one of the main reasons for higher concentration of particulate matter. On the other hand, in the monsoon season, April to October during 2018-2021, the concentration of all particulate matter drops back to permissible limits.

The demolition works, substations and bay extensions and open cut trenches will have greatest dust impact and poorly managed construction may result in dust grievances from nearest neighbours who in some cases are directly adjacent. These activities will have cumulative dust impacts with other projects in the study area, so mitigation is paramount (see Environmental Management Plan (EMP), Section 11). Good housekeeping will be required with stockpiles of dusty materials being kept to a minimum and both stockpiles and trucks covered with a canvas or tarpaulin. Sequenced demolition with soft stripping of internal features first, water spray and the use of screens/walls will help to manage dust at the construction sites. The contractor will frequently need to spray water using specialized water tankers at the project sites and along the transport routes to minimize dust. During dry and windy days, spraying will need to be undertaken a minimum of twice a day but more often if needed. Pollutants (PM, NO<sub>x</sub>, SO<sub>2</sub>) in the diesel exhaust gas will also affect the quality of ambient air. Vehicles must meet national emissions requirements, be maintained in good working order and required not to be left running idle etc.

#### *Water Quality and Resources, Floods and Waterlogging*

The only substation sites which lie directly adjacent to a large water body are the Airport and Tongi substation sites; there is also a small pond by Purchabal substation site all of which could be impacted by (i) spills or leaks of fuels, oils and chemicals, (ii) sediment laden surface water runoff, especially from piling works using bentonite slurry and during infilling of Tongi substation using pumped sand from which the water must be drained to ground, and, (iii) disposal of untreated sanitary wastewater from construction and O&M workers—to be connected to existing sewerage network or septic tank and soakaway with the use of open defecation and pit latrines prevented. Along the cable routes there are many small creeks and rivers which might be affected by similarly contaminated run-off from the cable-laying and line installation works. Groundwater may also be affected by spills or leaks and untreated sanitary wastewater – given groundwater levels versus the anticipated 20m depth of piles it is unlikely piling will create a new pathway for contamination from the surface to reach the groundwater.

Good construction site practices will reduce the risk of contaminated run-off plus construction will be timed outside of the monsoon season. To minimize the occurrence or consequences of a pollution incident, the CEMP to be developed pre-construction will include a pollution prevention plan (PPP) supported by training of workers covering environmentally sound and safe storage and use of all fuels, chemicals and oils used on site and management of infill, piling and excavations to avoid sediment laden surface runoff (see Chapter 11 (EMP)). Oil spill clean-up materials (sorber pads, loose sorber material, etc.) should be stationed in/outside any oil/fuel/chemical storage in clearly labelled containers.

On top of that, the proposed underground transmission lines Purchabal Grid to Bashundhara M Block Grid (75 m) and PGCB Tongi Old Grid to Airport Grid (50 m) will need to cross Balu River and Turag Khal. In order to minimize any impact to these water resources, the HDD method will be used in the case of most watercourse crossings but for Turag Khal a new cable bridge will be installed and for Balu River the existing cable bridge will be used so that disturbance to the watercourses is minimized.

Added to that, minimum clearance of 50m from the river alignment will be maintained while traversing parallel to them.

The infilling of 10% of the 3ha waterbody at Tongi will reduce the area for floodwater storage and reduce the groundwater recharge potential. This land is inundated regularly but is officially agricultural rather than wetland, thus infilling is in line with the existing environmental clearance. However, it will be necessary for the detailed design to ensure adjacent flood levels do not increase due to loss of floodwater storage as a result of the infill e.g., by providing a small pond that can also provide wildlife benefit to mitigate the loss of seasonal wetland habitat. Infilling will be done during the dry season to minimize the risk of sediment laden surface water runoff. Erection of a robust bund or wall to contain the mud sand whilst the water evaporates or discharges to ground. Following infill, the dry raised land must be seeded and the slopes planted with native grass species, short water tolerant plants and reeds at the base to prevent soil erosion whilst the detailed design work is completed.

For other substation sites the surrounding drainage network is already in-situ and it will just be necessary to install adequate storm water drainage/attenuation to avoid waterlogging and ensure that the addition of infrastructure does not create more surface water runoff than the current site situation.

In terms of water resources, they will be required for construction and a small volume for O&M for sanitation and welfare of the operators which will either be sourced from Dhaka WASA (as the preferred option) or direct from groundwater at Tongi and Purbachal after the requisite permission has been obtained. As Dhaka experiences high amounts of rainfall, rainwater harvesting will be implemented as part of the detailed design as a supplementary option to reduce pressure on groundwater.

#### *Natural Resources, Solid and Hazardous Waste*

The project will require procurement of raw materials for construction but these will all be obtained from authorized sources including mud sand for infilling of Tongi substation. More importantly inert, solid, hazardous and liquid wastes will be generated during the construction that may be inappropriately disposed of. It includes waste currently disposed on the sites which is to be removed as part of site establishment.

The construction rubble from demolition is preferably reused/recycled for aggregates. Solid wastes will also preferably be recycled (note: recycling options are being expanded in Dhaka) such as paper, plastics etc. Some hazardous waste may be generated during construction such as waste oil, oily cloths, and lubricants. If not properly collected/stored by the contractors for offsite reuse/recycling and/or disposal, there is the risk that waste will be left on site and/or dumped without authorization in the urban area and pollute the local neighborhood especially given the status of waste management in Dhaka. The different types of waste will need to be segregated and stored separately to avoid cross-contamination. The contractor will need to document all volumes and types of wastes generated and removed off site (inert, solid, hazardous) using transfer notes. The waste is to be taken by licensed waste contractors who should reuse/recycle or dispose of the waste according to type to suitably licensed and engineered waste management facilities. Unsanitary open dumps and are not to be used by the contractor. Municipal waste collection systems must not be used as this is also likely to mean that the waste is open dumped.

Hazardous waste will need to be safely and soundly separately stored for disposal to suitably licensed hazardous waste management facilities with suitable vendors/facilities to take the waste identified for approval by DESCO.

No asbestos containing materials are to be used during construction and new transformers will need to be certified PCB free. In the past transformers have contained PCB oil. PCB oil being non-biodegradable and carcinogenic is subject to international phase out of use under the Stockholm Convention. For any existing distribution transformers being removed (other than those in storage at an existing switching station to be demolished, removal is not anticipated at this stage) it must be confirmed that these do not contain PCB oil with environmentally safe and sound storage or disposal. The most suitable way to determine if PCB is present is for a suitably qualified institute to sample and analyze the oil following United Nations Environment Protection Agency (UNEP) Guidelines for the identification of PCB and materials containing PCB and a health and safety risk assessment and plan referring to the measures in PCB transformers and capacitors: From Management to Reclassification and Disposal.

#### *Land Use and Agricultural Resources (Soil Quality)*

The total land take for all eight proposed substations is 2.35 hectares of land, none of which is designated for agricultural practices. Of this the 1.11ha of land that was agricultural was already acquired for housing development and has been donated to DESCO to construction the substations on. As with water quality, the soil quality can be similarly impacted with the measures for water quality similarly providing protection to soil.

#### *Ecological and Fisheries Resources (Flora, Fauna and Wetland Habitat)*

There are no Protected Areas within the Project Area and, due to the urban setting only modified habitat is encountered, and, there is no significant terrestrial or aquatic ecological value to be impacted. This will be reconfirmed during route surveys for the 132 kV, 33 kV, 11 kV, 0.4 kV and siting of RMU by the EPC contractor who will need to ensure that their final alignments maintain this position. The results of ecological walkover survey as part of the contractor's route surveys shall inform the completion of the site-specific environment assessment checklist to inform the updated IEE.

Of greatest ecological value is the wetland adjacent to the Tongi substation site and the Turag River and Tongi Khal. The former is a natural, but highly modified seasonal wetland of approximately 3ha when inundated. Approximately 10% of the area will be infilled and the land raised for the substation. Here bird surveys were undertaken in the period of December 2022 – February 2023 to investigate the presence of both migratory and resident bird species around the proposed site (for the full Bird Survey Report see Appendix XIV). Whilst no rare or endangered species were found, a total of 36 different species were sighted, including both migratory and resident species. The report mentions several mitigation measures which need to be adopted during the required infilling works for the site (see EMP). For river crossings the measures for water quality will protect these ECA from further pollution by the project.

On top of that there will be common species of shrubs, herbs and grasses to be cleared on the substation/bay extension sites, within about 3-4m width along the cable trench routes, and the pole and RMU foundations. There are approximately seventy (70) trees which will need to be felled during construction of all eight (8) substation sites, as shown in Table 8.4. For each felled tree, three (3) new ones will be planted by the project as compensation. All tree cutting and vegetation clearance will be supervised by an ecologist and the bird nesting period will be avoided to minimize risks of harming the wildlife.

There is also a risk of disturbance to the adjacent vegetation and trees which are not needing to be cleared for the works and wildlife due to the presence of people and construction equipment, although the urban area is already highly disturbed. The spread of invasive species to be managed – especially

water hyacinth, and potential for workers illegal cutting of trees, hunting or poaching which is to be addressed through a code of conduct.

**Table 8.4: Trees to be Cut during Site Clearance at the Substation**

SI	Name of the proposed SS	Nos. trees to be cut	Nos. of trees to be retained	Nos. of trees for compensation replantation
1	Mirpur Ceramic SS	3	1	9
2	Kalshi SS	22	0	66
3	Kalachandpur SS	4	1	12
4	Purbachal SS	7	4	21
5	Bashundhara SS	16	0	48
6	Airport SS	17	3	51
7	Rupayan City	0	1	0
8	Tongi SS	0	0	0
<b>Total</b>		<b>69</b>	<b>10</b>	<b>207</b>

#### *Employment Opportunities*

The project will have some positive impact on the local employment situation as approximately 200 workers, included skilled, semi-skilled and unskilled workers, will be needed for the construction phase. These will be recruited locally and encourage the recruitment of suitably skilled women, as far as possible. No illegal forced or child labor to be employed in construction with the minimum age for employment on the construction site to be 18 given hazardous nature of works involved – no persons under 18 to be employed. Working hours to be in accordance with Bangladesh labor laws to minimize H&S risks.

#### *Occupational Health and Safety*

Due to construction works for transmission and distribution lines being undertaken along the busy urban roads of Dhaka they may give rise to slow moving traffic and congestion increasing the risk of a traffic incident involving workers. River crossings via cable bridge also pose a risk due to working over water. Other health and safety risks to construction workers include exposure to vector borne diseases such as malaria, snake bites, exposure to communicable diseases, exposure to hazardous chemicals, unsanitary conditions at the work site and in overnight accommodation provided by their employer, toppling of poles and falls from height, collapse of open trenches, electrocutions, dust, and noise exposure etc.

No asbestos materials were observed at buildings to be demolished or during audits in the existing substations but because of the health risks associated with exposure to asbestos dust, which is carcinogenic, the potential presence of asbestos needs to be surveyed by the contractor as part of their occupational health and safety risk assessment using competent third party before any demolition or works disturbing existing substations are undertaken. If any asbestos is encountered and is at risk of being disturbed by construction work and exposing workers to asbestos dust it must be safely removed and treated as hazardous waste.

A preliminary Occupational Health and Safety Risk Assessment has been undertaken by CEGIS and is contained in Appendix VII. The Mitigation Plan, which forms part of the EMP and is added as Appendix IX details a number of measures which Contractor will need to commit to, including ensuring use of PPE etc. Contractors will dedicate enough health and safety supervision staff to the 8no. substation

sites and each underground cable or overhead line section (at least one health and safety steward per underground cable or overhead line, each steward will supervise a maximum of 50 workers) as well as at to ensure measures identified by the risk assessment and set out in the health and safety plan are followed.

No construction camps for overnight accommodation are planned at this stage, as it is assumed that the workers recruited locally will be able to commute from their homes every day. However, if employer provided rented accommodation is provided it will need to be in line with ILO guidelines with the workers being provided with the drinking water supplies that are meeting GOB standards. Sanitation and welfare facilities will also need to be provided during the work shift to allow rest breaks etc.

#### *Community Health and Safety*

Risks associated with the construction period relate mainly to the potential for accidents and fatalities due the construction works in the public domain specifically open cable trenches and road blockages. Other risks include exposure to pollution (noise, dust etc.) and wastes, conflicts with construction workers and staff of DESCO due to provocation, sexual exploitation, or harassment of locals by workers, spread of communicable diseases like STDs, and potential cultural conflicts. A preliminary Community Health and Safety Risk Assessment has been undertaken by CEGIS and is included in Appendix VIII.

The impacts will be felt more if communities are not informed in advance about the works and appropriate health and safety measures (e.g., dust and noise management, community awareness, hazard warning boards for on-going construction activities, temporary works boundary fences and solid barriers, and traffic management controls) are not enforced at the construction sites. The Mitigation Plan, which forms part of the EMP and is added as Appendix IX details a number of measures which Contractor will need to commit to, including implementing construction safety community awareness raising activities in local affected communities within 500m of new substations and 50m of cable routes/overhead lines, especially with schools in the vicinity due to the vulnerability of children.

The cable laying and overhead line works along the public roads will be clearly marked and sign-posted with pictorial signs and lights. In order to enable access to the roadside shops and other buildings, concrete or wooden bridges with side protection will be laid for pedestrians to be able to cross over unimpeded. Contractors will dedicate enough health and safety supervision staff to each underground cable or overhead line section (at least one health and safety steward per underground cable or overhead line, each steward will supervise a maximum of 50 workers) and develop a work plan to ensure each stretch is completed and the road restored before moving onto the next to minimize health and safety risks.

#### *Property and Physical Cultural Resources*

Property including locally important physical cultural resources may be inadvertently damaged during the installation works including as a result of vibration from piling work, although most buildings observed adjacent to substation sites appear to be well constructed. Prior survey of property will be done to provide a baseline in case of any damage; any damage will be repaired at the cost of the contractor. Any temporary loss of access to businesses and temporary shifting of street vendors due to underground cable and OHL works that will affect livelihoods will be compensated in line with the resettlement plan.

### *Underground and Overhead Public Utilities*

Public utilities including electricity and telephone lines, gas pipes, water pipelines or sewers may be affected during the installation works of underground cables, causing temporary disturbance to the community. This is a moderately significant impact. The likelihood of it to happen is low but if it does occur the effects can be severe due to loss of water, gas or sewage leak etc. The contractor will be responsible for the final route survey which will include consultation with the various service providers to identify the location of any public utilities and try to ensure that they are not impacted during excavation works for the cable laying etc. Prior survey of existing utilities will be done to avoid damage being caused, and DESCO must also ensure that when replacing overhead lines alternative arrangements are put in place to maintain health and safety and any street lighting and other cables that use existing poles prior to their removal. If public utilities are accidentally affected and services to the local communities are temporarily disrupted, immediate action will be taken to remedy the situation (including for example bottled water supply if a water main were to be broken) at the cost of the contractor.

### *Roads and Traffic Levels*

The pre-mitigation impact on the existing traffic is considered significant. Traffic in Dhaka City is challenging most of the time and the addition of construction vehicles transporting equipment and materials to the construction sites will increase this situation. DESCO estimates that twenty-seven (27) transformers will be needed in total to equip the eight substations. Transport through Dhaka City will be done at night. The cable rolls will be transported by road, too. A maximum of approximately one hundred and forty (140) trailers will be required to transport all the cables to where they are needed. Here again, nighttime transport will be undertaken. In summary a total of around 350 trailer movements will be required during construction, on top of general construction traffic to bring equipment and the workers.

Road closures and diversions, essential during cable laying in the road and possibly during overhead lines, will also cause some traffic congestion and must be kept to the minimum necessary to ensure safe working conditions for construction workers and the local community whilst being well signed etc. Any individual road blockage and road diversion will be temporary (short term) and not exceeding two weeks but due to 330km of cable/line there will be many road blockages and road diversions needed. Planning of works will need to be done in conjunction with other construction works in the city to minimize the cumulative impacts they may cause to the adjacent local community and road users.

The contractor will implement, in close coordination with the local traffic authorities, a traffic management plan where works affect roads and sidewalks. Road safety and warning signs for footpath and road blockages will be placed immediately in advance of the works at least one week prior to the works commencing to inform the public of the temporary blockage. For road blockages flag men will be used during works to control the traffic flow and protect construction workers and the road users. For construction traffic it is to avoid the rush hour (6am to 8 am, and 4pm to 6 pm) wherever possible.

DESCO will ensure roads will be resurfaced in conjunction with Dhaka North City Corporation immediately on completion of each section to minimize disruption. The final surfacing works for the roads will be paid for by DESCO but done by Dhaka North City Corporation. It usually takes about 3-6 weeks to be completed. However, immediately following cable installation works, the contractors will infill the roads to the extent that they can be safely reused again by people and vehicles and will continue to maintain them to ensure safe travel whilst avoiding dust and erosion up until the final surfacing works are completed by the city corporation.



### *Cumulative Impacts (Construction)*

Cumulative impacts are defined as the combination of multiple impacts from existing projects, the proposed project, and anticipated future projects that may result in significant impacts that cannot be expected in the case of only the project.

Substation activities will take place on DESCO land, but some are in major development areas and transmission and distribution line activities, including construction, will mostly take place along existing roads. During the field visits it was observed that many other construction activities are taking place in the study area or are planned to take place by housing developers etc. These activities are also contributing to clearance of vegetation and trees, infilling of waterbodies, air pollution, especially dust, noise emission, groundwater use and waste generation. It was also observed that limited environmental management is often being implemented by the contractors such as no allocated storage areas for waste, soil, or construction materials, no sprinkling of water on dusty roads, etc. Cumulative impacts are therefore anticipated where works are taking place in parallel with the DESCO project.

Cumulative impacts would mainly relate to construction works increasing the significance of the impacts predicted from the project alone: loss of wetland at Tongi, tree and vegetation clearance, dust generation, noise emission, occupational and community health and safety risks, and traffic congestion. Possible conflicts among workers of the project along with workers on the other works may also take place.

To manage these impacts the EPC contractor will be required to coordinate with other utility sectors and housing developers having planned works. Taking into account the timing of these other projects, sensitive timing of the construction works will be critical to avoid significant cumulative impact on the adjacent receptors.

### **8.3.3 Operation and Maintenance Phase**

The potential impacts during the Operation and Maintenance phase are far more limited and the most significant can be summarized as follows. There will be no or minimal impacts on ecology and physical cultural resources during this stage whilst minor water/soil quality risks can be addressed through detailed design by incorporating 110% impermeable bunds to transformers, providing undercover, impermeable storage areas for fuels, oils and chemicals used on site, and connecting sanitary wastewater to the existing sewerage system or septic tank and soakaway to ensure no untreated wastewater is disposed of to the surface water etc.

### *Noise and Vibration Levels*

Transformers at substations will generate 60-80dBA and be the main source of operational noise impact. The humming noise emitted from transformers because of its tonal component it causes greater annoyance than other noise at the same level. Since sound attenuates with distance those closest to outdoor transformers will be most affected since unmitigated noise from them of 80dBA at 1m would not fall below 45dBA until about 56.23m from the site and 40dBA until about 100m from the site. Siting the transformers further from residential properties and installation of an engineered acoustic barrier around the substation sites or the transformers will be able to effectively reduce noise levels by 10-20 dBA, and potentially up to 30dBA can be achieved. For substation sites with proximity of residential receptors within 56-100m of outdoor transformers such a barrier will be required. If effective in reducing the noise levels down from 80dBA to 60dBA, this would enable 45dBA to be achieved at 5.7m, or 50dBA at 10m if not high rise when sound can travel upward. Kalachandpur substation and other locations where the high-rise buildings are present will be the most challenging

to mitigate as noise barriers will be less effective with the sound being directed upward. Here it may be more effective to enclose the transformers rather than providing the noise barriers around the site.

#### *Climate Change*

Impacts on climate change are envisaged if SF<sub>6</sub> gas (insulator) is used and leaked from the substations/switchgear or RMU associated with the distribution lines. SF<sub>6</sub> is a potent Green House Gas. It has a global warming potential 23,900 times greater than carbon dioxide. Given low to medium voltage components only small volumes of SF<sub>6</sub> may be used in the RMU but for the GIS there will be a large volume used. Although leakage of SF<sub>6</sub> is rare and unlikely as climate change is a global issue the impact pre-mitigation is significant.

Use of solid insulation in preference to SF<sub>6</sub> insulated equipment. SF<sub>6</sub> in fire extinguishers provided at substations/bay extensions should also be avoided. Any equipment containing SF<sub>6</sub> will be enclosed hermetically to ensure leakage will be minimal during operation. To minimize leakages circuit breakers and RMU will need to be sealed pressure “sealed for life” units, tested and guaranteed by the supplier at less than 0.1% leakage rate. The RMUs will be designed and operated so that any leakage will trigger an alarm at the nearest concerned staffed substation requiring O&M staff to rectify the situation immediately. During O&M DESCO will need to monitor leakage rates if such event take place and provide training to O&M staff on SF<sub>6</sub> management. On end-of-life DESCO will need to ensure the GIS and RMUs are appropriately disposed by a certified industrial waste management company who will need to remove SF<sub>6</sub> and treat the GIS equipment prior to disposal in accordance with International Electrotechnical Commission (IEC) standard 61634 to ensure SF<sub>6</sub> is not released to atmosphere.

#### *Occupational Health & Safety*

Working with electricity bears the inherent risk of electrocution whilst working at height on distribution poles and gantries is another risk to O&M workers. During the operational phase, both the substations and the overhead lines will need to be regularly maintained. DESCO reports that there have been no accidents during maintenance works due to the thorough training given to their maintenance staff. It will be necessary to ensure health and safety risk assessment and management planning with enforcement of PPE use during O&M to ensure that such a situation continues to be the case. For the staff based at the substations, sanitation and welfare facilities in line with ILO guidelines will need to be provided as part of the detailed design with drinking water supplies meeting GOB standards.

#### *Community Health and Safety*

Underground cabling will have the benefit of removing operational health and safety risk. Safety clearances will be maintained for overhead lines during detailed design. The risk of electrocution of particularly children and adolescents by handling electricity equipment, including conductors, will be communicated clearly by the contractor and DESCO through a series of outreach programmed as described in the EMP. For EMF levels ICNIRP guidelines will be complied with by the detailed design.

O&M impacts may occur when the other works do not pay respect to the presence of the transmission and distribution lines and damage them, this could expose their workers to electrocution risk as well as increasing risks to others from the damaged cable or line. DESCO can provide awareness raising to other utility sectors (contractors) and housing developers regarding safe working practices around its transmission and distribution lines and undertake regular inspections and maintenance to identify any damage that has been caused.

### *Electricity Supply and E-waste*

Construction of the project would increase the availability and reliability of electricity having a positive impact to DESCO customers in the project area. The substations will include 5 kW rooftop solar PV which will be beneficial by providing renewable energy supply. However, the defunct solar PV and also batteries ( e.g., lead acid) installed at the substations at their end-of-life may lead to environmental degradation ( e.g., air, water and soil contamination) if they are not properly disposed.

### *Induced Impacts (Land Use Change)*

Induced impacts are impacts from unintended but predictable developments caused by a project, which may occur later or at a different location. There will be induced socioeconomic development because of implementation of the project by virtue of its purpose to expand and strengthen the distribution network. In the wider area of Dhaka, there is wetland habitat and agricultural land use which might gradually change as land gets sold for industrial development and urban settlement due to better electricity supply reinforced by this project. This development would also increase demand for groundwater and generate waste for disposal in an already stressed city environment. Any such induced development due to improved supplies will need to be in accordance with the national laws and regulations of Bangladesh. It should also be noted that any such future development is entirely independent of the distribution component.

Most of the proposed housing development that the distribution network will serve was approved by Department of Environment long back, and distribution lines have already been installed but are being served by other substations hence the need for the project. The exception is the housing development proposed at Tongi which still requires environmental clearance from the Department of Environment who will need to consider the impact of infilling the 3ha wetland given its local importance for birds and fisheries before granting it. DESCO will share the bird survey report undertaken for the project with the housing developer, to inform their EIA for the development. That said, industrial developments at Tongi are already in development so although land was donated by the housing developer because the substation may benefit their proposed development, the proposed substation is not dependent on the proposed housing development going ahead.

These induced impacts are outside the scope of the project to address but the concerned government authorities should develop local/regional plans in conjunction with Department of Environment to guide induced development, conserve the wetland habitat and agricultural land from the invasion so that impacts on floods/waterlogging and food security are not exacerbated, and to plan for adequate water supply and waste management before development takes place to avoid further environmental stress.

## **8.4 Impact Matrix**

An Impact Matrix representing a summary of the main impacts and their significance is presented in Table 8.5. The mitigation measures for all impacts are itemized in more detail in the Environmental Management Plan (EMP) and its Appendices (Section 11).

Table 8.5: Impact Matrix

Activities	IESC	Impact	Sensitivity	Magnitude						Significance (before Mitigation)	Mitigation Required in EMP
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance	Magnitude		
<b>Construction Phase</b>											
<b>Physical Environment and Water Resources</b>											
Presence of workers, movement of construction vehicles, operation of construction equipment especially piling works and demolition of existing structures.	Noise and Vibration Level	Noise generated might cause health effects to the construction workers and disturbance to adjacent receptors including residential.	Very High (43)	Minor to Moderate (2-3)	Minor (2) Moderate (3)	Minor (2)	Major (4)	Major (4)	The resultant impact magnitude is (2-3+3+2+2+4+4=14-15;14--16;15-16/5=2.8~33~3.2) 'Moderate'	Sensitivity: 43 Magnitude: 3 The resultant impact significance is: 'Major Adverse (129)'	Yes
Movement of construction vehicles, earthworks and open trenching for laying distribution lines.	Air Quality	Emission of dust particles and emissions from vehicles and associated degradation of air quality.	High (3)	Minor (2)	Moderate (3)	Minor (2)	Major (4)	Major (4)	The resultant impact magnitude is (2+3+2+4+4=15;15/5=3) 'Moderate'	Sensitivity: 3 Magnitude: 3 The resultant impact significance is: 'Major Adverse (9)'. 'Moderate'	Yes

Activities	IESC	Impact	Sensitivity	Magnitude					Significance (before Mitigation)	Mitigation Required in EMP	
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance			Magnitude
Infill and earthworks, piling works, use of fuel/oil/chemicals, disposal of construction and sanitary wastewater and requirement for construction water	Water Quality and Resources, Floods and Waterlogging	Leakage or spillage of fuel, oil and chemical, sediment laden surface water runoff especially from use of bentonite slurry for boring of piles, and unplanned disposal of construction and sanitary wastewater might deteriorate surface water and groundwater quality whilst use of construction water might affect the groundwater resources.	Medium (2)	Moderate (3)	Moderate (3)	Minor (2)	Minor (2)	Major (4)	The resultant impact magnitude is $(3+3+2+2+4=14; 14/5=2.8\sim 3)$ 'Moderate'	Sensitivity: 2 Magnitude: 3 The resultant impact significance is: 'Moderate Adverse (6)	Yes

Activities	IESC	Impact	Sensitivity	Magnitude						Significance (before Mitigation)	Mitigation Required in EMP
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance	Magnitude		
Use of natural resources for construction, generation of construction and demolition wastes	Natural Resources, Solid and Hazardous Waste	Generation of construction wastes like metal scraps and wooden packing material, broken brick chips, cement mortar, oily rags if inappropriately disposed might cause environmental and aesthetic pollution.	High (3)	Major (4)	Moderate (3)	Minor (2)	Major (4)	Minimal (1)	The resultant impact magnitude is (4+3+2+4+1=14;14/5=2.8) 'Moderate'	Sensitivity: 3 Magnitude: 3 The resultant impact significance is: Major Adverse (129)	Yes
<b>Land Use and Agriculture Resources</b>											
Construction of Substation and associated TLs and DLs.	Land Use including Crop Production, Soil Quality	Construction of substation would cause permanent change and TLs and DLs would cause change in land use.	Medium (2)	Major (4)	Minor (2)	Major (4)	Major (4)	Minimal (1)	The resultant impact magnitude is (4+2+4+4+1=16;16/5=3.2) 'Moderate'	Sensitivity: 2 Magnitude: 3 The resultant impact significance is: Moderate Adverse (6)	Yes
<b>Ecological and Fisheries Resources</b>											

Activities	IESC	Impact	Sensitivity	Magnitude						Significance (before Mitigation)	Mitigation Required in EMP
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance	Magnitude		
Site preparation for proposed substations and underground transmission lines	Flora and fauna	Tree and vegetation clearance might cause impact to wildlife. Increased disturbance to wildlife near construction sites due to increased noise levels and movement of humans etc.	Medium (2)	Major (4)	Moderate (3)	Moderate (3)	Minor (2)	Minimal (1)	The resultant impact magnitude is $(4+3+3+2+1=15; 15/5=3)$ 'Moderate'	Sensitivity: 2 Magnitude: 3 The resultant impact significance is: Moderate Adverse (6)	Yes
Site preparation	Wetland Habitat	Land development in the project area at Tongi will cause loss of 10% of 3ha seasonal waterbody	Medium (2)	Major (4)	Moderate (3)	Major (4)	Major (4)	Minimal (1)	The resultant impact magnitude is $(4+3+4+4+1=16; 16/5=3.2)$ 'Moderate'	Sensitivity: 2 Magnitude: 3 The resultant impact significance is: Moderate Adverse (6)	No
<b>Socio-Economic Resources</b>											
Contractor and manpower recruitment for different	Employment opportunity	Generation of employment opportunity to approximately 200 skilled,	Low (1)	Minor (2)	Moderate (3)	Minor (2)	Major (4)	Minimal (1)	The resultant impact magnitude is $(2+3+2+4+1=12; 12/5=2.4)$ 'Minor'	Sensitivity: 1 Magnitude: 2 The resultant impact significance is:	

Activities	IESC	Impact	Sensitivity	Magnitude						Significance (before Mitigation)	Mitigation Required in EMP
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance	Magnitude		
types of construction activities.		semi-skilled, and unskilled laborers.								Minimal Beneficial (32)	
Various construction activities; establishment of construction camps for workers	Occupational Health & Safety	<ul style="list-style-type: none"> <li>Risky and hazardous construction activities may cause health hazards and injuries for the construction workers.</li> <li>Unhygienic construction camps and sub-standard conditions will have impacts to construction workers.</li> <li>Potential to encounter asbestos in the</li> </ul>	High (3)	Major (4)	Minor (2)	Major (4)	Moderate (3)	Minimal (1)	The resultant impact magnitude is $(4+2+4+3+1=14; 14/5=2.8)$ 'Moderate'	Sensitivity: 3 Magnitude: 3 The resultant impact significance is: Major Adverse (9)	Yes



Activities	IESC	Impact	Sensitivity	Magnitude						Significance (before Mitigation)	Mitigation Required in EMP
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance	Magnitude		
		demolition of buildings or the existing substations.									
Transport of materials and equipment cable, trenching, demolition of existing structures at some SS sites	Community Health & Safety	Construction activities might cause health risk to community level including pedestrians and more vulnerable groups like children due to laying of underground cable and movement of heavy equipment, vehicles and machineries.	High (3)	Minor (2)	Moderate (3)	Major (4)	Moderate (3)	Minimal (1)	The resultant impact magnitude is (2+3+2+3+2=12;124+3+1=13;13/5=2.4~2) 'Minor'6~3) 'Moderate'	Sensitivity: 3 Magnitude: 3 The resultant impact significance is: Major Adverse (69)	Yes
Construction of Substation and	Property and Physical Cultural Resources	Property and locally important physical cultural	High (3) Medium (2)	Minor (2)	Moderate (3)	Minor (2)	Moderate (3)	Minor (2) Minimal (1)	The resultant impact magnitude is (2+3+2+3+2=12;121=11;11/5=2.42~2) 'Minor'	Sensitivity: 32 Magnitude: 2 The resultant impact	Yes

Activities	IESC	Impact	Sensitivity	Magnitude						Significance (before Mitigation)	Mitigation Required in EMP
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance	Magnitude		
associated TLs and DLs.		resources could be accidentally damaged during the installation works of underground cables								significance is: Minor Adverse (64)	
Open trenching and installation of overhead lines	Underground Public Utilities	Public utilities e.g., gas pipes, telephone lines, water pipelines or sewers may be affected during the installation	Medium (2)	Minor (2)	Moderate (3)	Minor (2)	Moderate (3)	Minimal (1)	The resultant impact magnitude is (2+3+2+3+1=11;11/5=2.2~2 ) 'Minor'	Sensitivity: 2 Magnitude: 2 The resultant impact significance is: Minor Adverse (4)	Yes
Transport of materials and equipment to cable trenching site, civil and installation work of underground cable	Roads and Traffic Levels	Traffic congestion would be increased.	High (3)	Minor (2) Moderate (3)	Moderate (3)	Minor (2)	Major (4)	Minor (2) Minimal (1)	The resultant impact magnitude is (2+3+2+4+21=32;32/5=6.4~6) 'Moderate'	Sensitivity: 3 Magnitude: 3 The resultant impact significance is: Major Adverse (9)	Yes

Activities	IESC	Impact	Sensitivity	Magnitude						Significance (before Mitigation)	Mitigation Required in EMP
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance	Magnitude		
<b>Operation and Maintenance Phase</b>											
Operation and maintenance	Noise and Vibration Level	Transformer hum	High (3)	Minimal (1) Major (4)	Moderate (3)	Moderate (3)	Minor (2)	Minor (2) Moderate (3)	The resultant impact magnitude is (14+3+3+2+2=11;11/4;15/5 =2.2~2) 'Minor'3) 'Moderate'	Sensitivity: 3 Magnitude: 23 The resultant impact significance is: MinorMajor Adverse (69)	Yes
O & M of GIS Substation and RMUs	Climate Change	Emission of SF6 gas into the atmosphere from the GIS substations and RMUs as a contributor to climate change. SF6 emissions are not a continuous event but might occur in the event of accidental leaks or poor handling of old, end-of-life equipment that maintains by DESCO.	Very High (4)	Major (4)	Major (4)	Major (4)	Minor (2)	Minor (2) Minimal (1)	The resultant impact magnitude is (4+4+4+2+2=16;16/1=15;15/5=3.2~3) 'Moderate'	Sensitivity: 4 Magnitude: 3 The resultant impact significance is: Major Adverse (12)	Yes

Activities	IESC	Impact	Sensitivity	Magnitude					Significance (before Mitigation)	Mitigation Required in EMP	
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance			Magnitude
Operation and maintenance	Occupational Health & Safety	Health risk to the O&M workers may occur during maintenance of substation and the electric lines.	High (3)	Major (4)	Minor (2)	Major (4)	Minor (2)	Minimal (1)	The resultant impact magnitude is $(4+2+4+2+1=13; 13/5=2.6)$ 'Moderate'	Sensitivity: 3 Magnitude: 3 The resultant impact significance is: Major Adverse (9)	Yes
Operation and maintenance	Community Health & Safety	Health and safety risk to local community due to presence of OHL	High (3)	Major (4)	Minor (2)	Major (4)	Moderate (3) Minor (2)	Minor (2) Minimal (1)	The resultant impact magnitude is $(2+4+2+4+3=15; 15/2+1=13; 13/5=2.6)$ 'Moderate'	Sensitivity: 3 Magnitude: 3 The resultant impact significance is: ModerateMajor Adverse (9)	Yes
O & M including 5 kW rooftop solar PV	Electricity Supply and e-waste	Defunct solar PV and batteries ( e.g., lead acid battery, e-waste) at end-of-life may lead to environmental degradation ( e.g., air, water and soil contamination) if they are not	High (3)	Major (4)	Moderate (3)	Minor (2)	Minor (2)	Minimal (1)	The resultant impact magnitude is $(4+3+2+2+1=12; 12/5=2.4)$ 'Minor'	Sensitivity: 3 Magnitude: 2 The resultant impact significance is: Moderate Adverse (6)	Yes

Activities	IESC	Impact	Sensitivity	Magnitude						Significance (before Mitigation)	Mitigation Required in EMP
				Temporal Aspects	Spatial Aspects	Reversibility	Likelihood	Compliance	Magnitude		
		properly managed.									
Operation and maintenance	Induced Impacts (Land Use Change)	Creation of a power hub might induce land use change through urbanization and industrialization. As such, valuable wetland and agricultural land might be converted and hence would result in loss of flood storage, crop production loss etc..	Low (1) Medium (2)	Major (4)	Minor (2) Major (4)	Major (4)	Minor (2) Moderate (3)	Minimal (1)	The resultant impact magnitude is $(4+2+4+24+3+1=13; 13/16; 16/5=3.2.6\sim 3)$ 'Moderate'	Sensitivity: 12 Magnitude: 23 The resultant impact significance is: Minimal Moderate Adverse (35)	No

## **8.5 Residual Impacts post-Mitigation**

The mitigation measures will reduce the level of magnitude of most predicted impacts to ensure impacts are less significant (e.g., moderate to minimal significance) but some more significant (major) residual impacts may still remain in respect of noise and vibration, road and traffic level impacts during construction and climate change during operation.

In case of air quality, solid and hazardous waste, occupational/community health and safety risks, and damage to property and utilities will need close attention to ensure they are well managed. There is a residual risk of health and safety incidents and accidental impacts to property/utilities and associated disruptions to be controlled.

### **8.5.1 Construction Phase**

The mitigation measures proposed in the EMP will help reduce noise and vibration levels to meet the national standards/international guidelines for the majority of construction works, even at the closest residential receptors. However, particularly the piling activities at the substation sites are likely to temporarily exceed these standards for short period. Further, even with control measures in place, the transport and traffic impacts will remain significant, as they will add to Dhaka City's traffic problems. These residual impacts will need to be managed through ongoing close consultation with local communities.

Since the airshed is already degraded with regard to particulates any dust generated will remain a concern despite the project's contribution to exacerbating the baseline situation being limited. Similarly given the waste management situation in Dhaka city solid and hazardous waste disposal will also remain a concern requiring close attention, as will management of the occupational health and safety risks. Good housekeeping and waste management will reduce impacts from improper waste handling to acceptable levels whilst risk assessment and management planning will help reduce occupational and community health and safety risks to a minimum. However, even post mitigation the potential for some occupational or community accidents due to the construction traffic and the open cable trenches will remain.

### **8.5.2 Operation and Maintenance Phase**

The mitigation measures proposed in the EMP will help reduce the risk of SF6 leakage but this still remains and any leakage would contribute to climate change being significant given the volume used in the project and global warming potential of SF6 compared to carbon dioxide. Risk assessment and management planning will help reduce occupational and community health and safety risks to a minimum.

## 9. Stakeholder Consultations

### 9.1 Introduction

This chapter presents the objectives, processes, and findings of the consultation meetings carried out with the key stakeholders of the project during the EIA study.

Stakeholder consultations (or public consultations) in the EIA process of development projects are increasingly considered an important means of understanding community and other stakeholder perceptions about the project and statutory requirements, which increases the authenticity and acceptability of the assessment itself but more importantly can possibly enhance the quality of decisions making as well. The statements, conversations and commitments from both ways (Proponent-Stakeholders) are meant to be inclusive, meaningful, and transparent. Stakeholder consultation/participation during various stages of developmental projects helps improve the decision-making processes and ultimately leads toward sustainable development.

Stakeholder consultations (or public consultations) in the EIA process of development projects are increasingly considered an important means of understanding community and other stakeholder perceptions about the project and statutory requirements, which increases the authenticity and acceptability of the assessment itself but more importantly can possibly enhance the quality of decisions making as well. The statements, conversations and commitments from both ways (Proponent-Stakeholders) are meant to be inclusive, meaningful, and transparent. Stakeholder consultation/participation and information dissemination during various stages of developmental projects helps improve the decision-making processes and ultimately leads toward sustainable development.

Stakeholder consultation is a two-way process. For stakeholders, the consultation process is an opportunity to obtain project information, raise issues and concerns and ask questions. For the project proponents, the consultation process offers the opportunity to understand the stakeholders and their concerns about the project, their needs, aspirations, perceptions and their suggestions that can potentially help shape the project. Listening to stakeholder concerns and feedback can be a valuable source of information, that can help improve project design and outcomes and help the project proponent identify and control external risks. It can also form the basis for future collaboration and partnerships.

Stakeholder consultation is recommended for the EIA study of any development Project according to the EIA Guidelines for Industries published by the Department of Environment (DoE) in 2021. Similarly, ADB's Safeguard Policy Statement (SPS), 2009 emphasizes on 'Enhancing Consultation and Participation' with a 'Meaningful Consultation' process.

### 9.2 Regulatory/ Requirements

#### 9.2.1 *Bangladesh Guidelines*

The EIA guideline formulated by DoE in 2021 (Chapter 9) meant that since the public is the ultimate recipient of the economic benefit and environmental damages, an EIA study should involve the public as part of decision-making process development. Consultation is an important step of the EIA process. To achieve effective public participation, it is necessary to communicate with as many people as possible, as early as possible and through as many ways as possible. This requires pre-planning, adequate resources, identification of target groups and several techniques for effective communication.

### 9.2.2 Asian Development Bank Requirements

ADB's Safeguard Policy Statement (SPS) 2009 emphasizes on 'Enhancing Consultation and Participation' with a 'Meaningful Consultation' process. This means, it would refer to a process that (i) begins in the project planning and preparation stage and rolls over throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information to the affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive and tailored to the needs of disadvantaged and vulnerable groups and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

### 9.3 Objectives and Purpose of Stakeholder Consultation

The main objectives of the stakeholder consultations/meetings were to:

- inform local people about the goal and objective of the proposed project;
- make people knowledgeable about the components and interventions of the proposed project;
- make people aware about the problems that could be created from the proposed project;
- obtain suggestions (mitigation measures, enhancement measures, contingency measures, compensation measures) to resolve those problems; and
- confirm that all the affected parties and stakeholders have been adequately consulted and have been part of the various decision-making processes.

### 9.4 Identification of Stakeholders

Stakeholders include all those who may affect or who are being affected by policies, decisions or actions within a particular system. Stakeholders can be a group(s) of people, organizations, institutions and sometimes even individuals. Stakeholders can be divided into primary and secondary categories. In the consultation meeting, both the primary and the secondary stakeholders have been selected.

Table 9.1 presents the types of stakeholders identified and engaged for consultation meetings.

**Table 9.1: Types of Stakeholders Engaged in the Project**

Sl. No.	Type of Stakeholders	Description	Stakeholders
1	Primary	Primary stakeholders are people who would be directly benefited or impacted by a project intervention.	Local representatives, land owners, small business community, shopkeepers, pedestrians, women's groups, local leaders and stakeholders of community properties.
2	Secondary	Secondary stakeholders pertains to those who are not directly affected but have interests that could contribute to the EIA study, play a role in project implementation at some stage, or affect the decision making on project aspects.	Local Government Institutions (LGIs), DESCO, Government Departments and Line Agencies like Titas Gas Transmission and Distribution Company Limited (TGTDC), and Dhaka Water Supply and Sewerage Authority (DWASA) Officials, Civil society representatives, NGOs and others.

Source: CEGIS, 2022



## **9.5 Approaches and Methodology**

A participatory approach was followed for the consultation of the project:

- The consultants used a checklist to maintain uniformity and relevancy in discussion and recording of the opinions and views of the participants;
- Socio-economic, agricultural, hydrological, fisheries, and ecological issues were discussed in detail, including potential impacts of the interventions on the environmental and social parameters; and
- Institutional issues were also discussed regarding which the participants provided their opinions and suggestions freely.

The issues of the overall project planning for intervention and probable impacts on the environment, socio-economy and institutions were incorporated in the checklist. A multi-disciplinary study team facilitated the consultations with different groups of local people to collect/record their opinions and views. At the very beginning of each consultation meeting, a representative from the EIA study team presented all the activities related to the project. The team used maps of the project area in establishing the baseline condition to identify proper interventions for the participants of the consultation meetings. At the same time, the purpose of the EIA study was described briefly so that the stakeholders could understand the purpose and importance of this consultation meeting. After receiving an overview of project activities, the participants shared their concerns in terms of working time, compensation (if required), probable risks, working environment, and period of implementation.

During the EIA study, seven (07) formal consultation sessions were held with the stakeholders and their feedback received about the proposed project's impacts and benefits. Through phone, the Key Informant Interviews were ensured. For conducting Stakeholder Consultation Meetings, a formal letter was issued by the project proponent to the Councilor of the selected area. Besides, a total 14 informal consultation sessions (involving 64 participants: 50 males and 14 females) were carried out during the field visits. During Stakeholder Consultation Meetings, the following process was followed with sequences. Table 9.2 presents details of all consultations conducted. Consultations plus key informant interviews and informal discussions as part of the EIA covered total 385 affected people and other stakeholders about 19% of whom were women.

### **9.5.1 Greetings**

At the beginning, the team spelled greetings to all participants, welcomed them for attending and stated the entire design of the meeting.

### **9.5.2 Introduction**

The team members introduced themselves to the participants and gave a detailed description of the project, spelled out about the objectives and anticipated outcome of the meeting.

### **9.5.3 Respect to the Participants**

The study team showed respect to all participants. They respected not only to the individuals but also their values, cultural practices and social structures.

### **9.5.4 Ensuring Peoples' Voice**

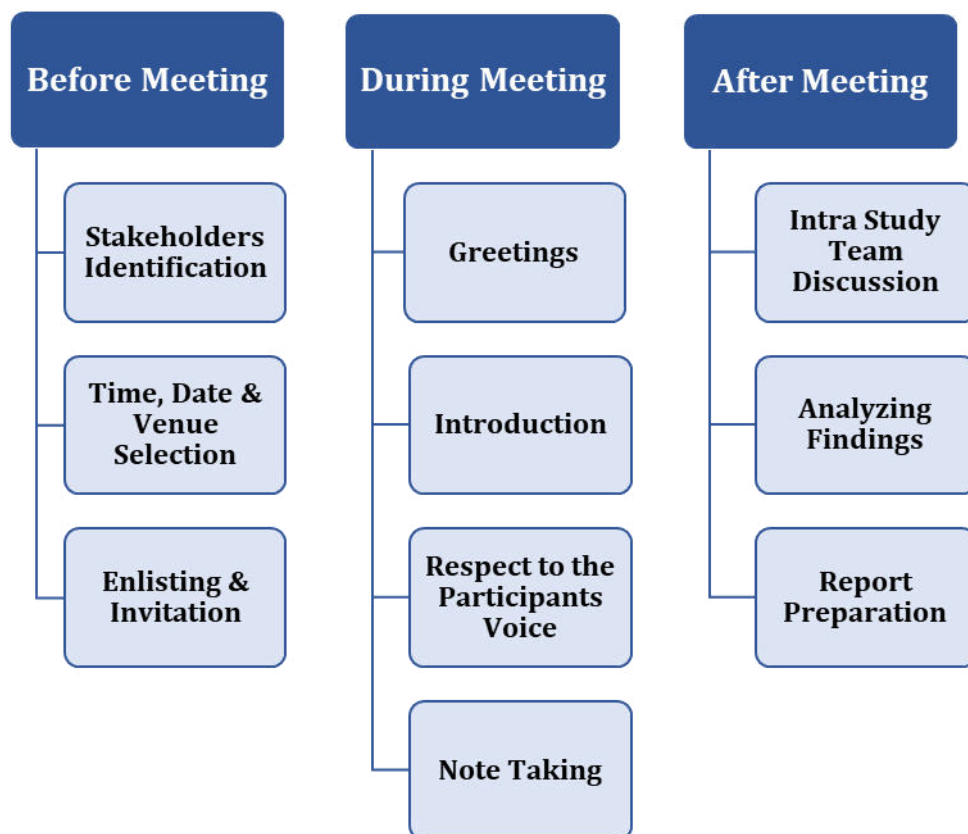
Generally, all participants cannot participate equally. The study team encouraged all to participate willingly through explaining the ethics of the study.

### 9.5.5 Note Taking

Discussed issues and opinions were written in notebook carefully by the team members. All issues were given equal importance.

### 9.5.6 Recapitulation and Closing the Session

The team member summarized the session and responded to the queries. Finally, the facilitator closed the session thanking the participants.



**Figure 9.1: Overall Process of Stakeholder Consultation Meeting**

Consultation meeting's places, venues, dates and number of participants attended the meetings are presented below in Table 9.2.

**Table 9.2: Venue, Date and Number of Participants of SCMs**

Meeting Place	Date	Number of Participants		
		Total	Male	Female
<b>Key Informant Interviews (KIIs) by CEGIS team</b>				
DESCO Local Office, Baridhara, Kalachandpur	17.05.22	2	2	-
TGTDCL Local Office, Mirpur	24.05.22	1	1	-
DWASA Local Office, Mirpur	24.05.22	1	1	-
Bangabandhu College, Mirpur	24.05.22	1	1	-
DESCO Head Office, Nikunjo	16.11.21	2	1	1
Councilor Office, Ward No. 2, Mirpur-12, Pallabi	23.11.21	3	3	-

Meeting Place	Date	Number of Participants		
		Total	Male	Female
<b>Key Informant Interviews (KIIs) by ADB TA Consultant team</b>				
Bangabandhu Collage, Mirpur	24.05.22	1	1	-
DESCO Head Office, Nikunjo	16.11.21	2	1	1
Councilor Office, Ward no 2, Mirpur-12, Pallabi	23.11.21	3	3	-
<b>Informal Consultations (Local Community/Officials/Occupational Groups) by CEGIS team</b>				
Adjacent to proposed Tongi SS Site, Darail, Tongi	01.11.21	8	5	3
On the DL Route around the Tongi SS Site	07.10.20	10	7	3
Adjacent to proposed Purbachal SS Site	09.11.21	8	3	5
On the TL/DL Route around the Purbachal SS Site	08.10.20	5	5	-
Adjacent to proposed Bashundhara SS Site, M Block	08.10.20	4	4	-
Adjacent to proposed Kalachandpur SS Site, Baridhara	11.10.20, 17.05.22	2	2	-
On the DL Route around Bashundhara, Nodda Area	17.05.22	6	6	-
Adjacent to proposed Kalshi SS Site, Mirpur	11.10.20	2	2	-
On the TL/DL Route around the Kalshi SS Site	11.10.20	4	4	-
Adjacent to Mirpur Ceramics Area SS Site	24.05.22	2	2	-
On the DL Route around the Mirpur Ceramics Area SS Site	11.10.20, 24.05.22	5	5	-
At the Bangabandhu College, Mirpur	24.05.22	3		3
Adjacent to proposed Rupayan City SS Site, Uttara	12.10.20	2	2	-
Civil Aviation Authority Office, Airport	17.05.22	3	3	-
<b>Informal Consultations (Local Community/Officials/Occupational Groups) by ADB TA Consultant team</b>				
Project site, Darail, Tongi	01.11.21	8	5	3
Surrounds of the site at Tongi	07.10.20	10	7	3
Purbachal Project Site (Substation Area)	09.11.21	8	3	5
Surrounds of the Purbachal Area	08.10.20	5	5	-
Project Site, Bashundhara M Block	08.10.20	4	4	-
Proposed Substation Area at Baridhara, Kalachandpur	11.10.20, 17.05.22	2	2	-
Surrounding of the Baridhara, Bashundhara, Nodda Area	17.05.22	6	6	-
Mirpur, Kalshi Site	11.10.20	2	2	-
Surrounding of the Kalshi Area	11.10.20	4	4	-
Proposed site at Mirpur Ceramics Area	24.05.22	2	2	-
Surrounding of the Ceramics Area	11.10.20, 24.05.22	5	5	-
Under Bangabandhu Collage, Mirpur	24.05.22	3		3
Project Site under Rupayan City, Uttara	12.10.20	2	2	-
Civil Aviation Authority Office, Airport	17.05.22	3	3	-

Meeting Place	Date	Number of Participants		
		Total	Male	Female
<b>Informal Consultations (Local Community/Officials/Occupational Groups) by ADB TA Consultant team</b>				
Purbachal SS area	17.10.2022	8	-	8
Bashundhara M Block SS site area	17.10.2022	3	3	-
Kalachandpur SS site	17.10.2022	1	1	-
Kalshi SS site area	17.10.2022	8	8	-
Mirpur Ceramic site area	17.10.2022	9	9	-
Rupayan City Area	18.10.2022	7	7	-
Tongi SS Area	18.10.2022	11	7	4
Tongi -27 (Existing SS)	18.10.2022	1	1	-
Airport SS area	18.10.2022	3	3	-
Tongi SS area	25.02.2023	4	4	-
Kalachandpur SS site	25.02.2023	2	2	-
Kalshi SS site area	02.03.2023	2	-	2
<b>Stakeholder Consultation Meeting by CEGIS</b>				
Councilor Office, Ward No. 2, Mirpur-12, Pallabi	23.11.2021	29	26	3
Kalachandpur SS area	30.10.2022	17	17	-
<b>Stakeholder Consultation Meeting by DESCO with the assistance of ADB TA Consultants</b>				
Khilkhet area ( Prubachal SS, airport SS and line coverage)	23.05.2023	50	42	8
Pallabi area (Mirpur Ceramics SS, lines, Kalhsi SS and lines coverage)	23.05.2023	39	32	7
Bashundhara area	25.05.2023	47	37	10

## 9.6 Issues Identified and Suggested Measures through Consultation

During all the Consultation Meetings, the project and its related activities as well as several issues with reference to the project were discussed. It was understood from the meetings that majority of the people of the respective SS sites showed an overall positive attitude towards the proposed project; at the same time, they also perceived that the proposed project might create some temporary problems to the locals. The suggested solutions to address those problems are presented in Table 9.3.

**Table 9.3: Community Concerns and Suggested Solutions**

Themes/Topics	Issues/Problems	Suggestive Measures	Reference of Consultation
Water Resources and Physical Environment	<ul style="list-style-type: none"> <li>Vehicular activities may arise for which conveyance capacity of road may be hindered. That may lead to traffic congestion as well as disturbance for pedestrians for their movement.</li> </ul>	<ul style="list-style-type: none"> <li>Dust control measures will need to be undertaken</li> <li>It was suggested by the participants that before schedule of cable installment works would be good to share with relevant police station and proper coordination</li> </ul>	Consultation held at: <ul style="list-style-type: none"> <li>Tongi SS Site, Darail, Tongi</li> <li>On the TL/DL Route around the Tongi SS Site</li> <li>Rupayan City SS Site, Uttara</li> <li>Civil Aviation Authority Office, Airport</li> </ul>

Themes/Topics	Issues/Problems	Suggestive Measures	Reference of Consultation
	<ul style="list-style-type: none"> <li>• Construction waste would release dust particles into the atmosphere.</li> <li>• Construction work along with the movement of construction vehicles would generate noise, which might be audible to the laborers and locales.</li> <li>• Excavation works for cable installment may also create dust.</li> <li>• Unconscious release of construction wastewater may contaminate the nearby water bodies where they exist.</li> <li>• Indiscriminate disposal of construction debris and kitchen wastes might pollute the environment.</li> </ul>	<p>will need to be maintained so that traffic polices are deployed that will help to manage the traffic.</p> <ul style="list-style-type: none"> <li>• It was suggested that excavation specially in front of residential buildings would be good to be done at midnight finishing by early morning so that vehicles from the buildings / inside the building do not face any obstacles for their movement.</li> <li>• Construction related vehicles should be allowed to move at a designated time.</li> <li>• Materials should be covered and wastes should be removed immediately after work.</li> <li>• Construction work (under substation sites) should be limited to daytime only and vehicles should use proper muffler and engine oil.</li> <li>• Allow releasing of construction wastewater into the nearby water body only with due treatment (e.g., send to reception well and settling sediment etc.).</li> <li>• Environmentally safe and sound disposal of wastes should be strictly maintained.</li> </ul>	<ul style="list-style-type: none"> <li>• Kalachandpur SS area</li> <li>• Mirpur area</li> <li>• Khilkheta area</li> <li>• Bashundhara area.</li> </ul>
Ecological Resources	<ul style="list-style-type: none"> <li>• Site preparation activities including vegetation clearance, and land cutting-filling in the proposed respective SSS would cause changes in existing habitat condition (Section 5.4 Ecological Resources).</li> </ul>	<ul style="list-style-type: none"> <li>• Optimize the vegetation clearance and render it carefully so that wildlife is not hurt;</li> <li>• Wildlife if caught or sighted in any of the project phases, it should be immediately intimated to the forest officials for rescuing for avoiding unwanted incident;</li> </ul>	<p>Consultation held at:</p> <ul style="list-style-type: none"> <li>• Tongi SS Site, Darail, Tongi</li> <li>• On the TL/DL Route around the Tongi SS Site</li> <li>• DESCO Head Office, Nikunjo</li> <li>• Civil Aviation Authority Office, Airport</li> </ul>

Themes/Topics	Issues/Problems	Suggestive Measures	Reference of Consultation
	<ul style="list-style-type: none"> <li>Noise pollution, labor and vehicle movement and other activities during the construction phase might cause disturbance to the resident wildlife.</li> </ul>	<ul style="list-style-type: none"> <li>Provision of a tree plantation program with suitable native plant species. Three (3) trees to be planted for any tree felled (the 3:1 rule) when clearing the substation sites.</li> <li>Avoid noise generation activities as much as possible. Use rotatory hammer instead of impact hammer in piling activities.</li> <li>Use low sound emission machines to minimize disturbance to wildlife and their habitat both construction and operation phases.</li> <li>Laborers should be made aware of local faunal species and their significance.</li> </ul>	
Socio-economic	Traffic congestion might arise during trenching and cable laying in the construction phase.	<ul style="list-style-type: none"> <li>It was suggested to ensure prior announcement of construction works especially the cable works so that community can be well aware. Suggestion was that this announcement can more effective with huge coverage if miking from the mosques are considered.</li> <li>Sharing the trenching and cable laying plan with the local traffic police authority and seeking their cooperation in ensuring effective traffic control activities.</li> <li>Trenching and cable laying activities should be limited in time to limit traffic congestion.</li> <li>Sharing the trenching and cable laying plan also with the R&amp;H, LGED, City Corporation etc. and seeking their cooperation</li> </ul>	<p>Consultation held at:</p> <ul style="list-style-type: none"> <li>On the TL/DL Route around the Tongi SS Site (Satais Bazar), Kalachandpur SS Site, Bashundhara SS Site (Nodda Area), and Ceramics Area SS Site;</li> <li>Stakeholder Consultation Meeting at Councilor Office, Ward No. 2, Mirpur-12, Pallabi</li> <li>Consultation meeting at Khilkheth area.</li> </ul>

Themes/Topics	Issues/Problems	Suggestive Measures	Reference of Consultation
		<p>how well the construction activities could be completed and reinstated the roads.</p> <ul style="list-style-type: none"> <li>The trenching works should avoid the Monsoon period.</li> </ul>	
	<p>Construction activities, such as demolition work, trenching, cable laying etc. might create risk of accidental events for the local people.</p>	<ul style="list-style-type: none"> <li>Extra precautionary measures like fencing or barricade should be installed during construction work at substations and underground cable route sites.</li> <li>Protection net should be considered around the structures to be demolished at the substation sites.</li> <li>Pictorial safety signs should be placed at the hazard prone places.</li> <li>Slabs (concrete, bamboo or wooden) should be placed across the cable trench in front of shops to act as bridges for customers near to the cable route trench.</li> <li>Trenching activities along the road should be done in the dry season.</li> </ul>	<p>Consultation held at:</p> <ul style="list-style-type: none"> <li>Adjacent to proposed Bashundhara SS Site, Kalachandpur SS Site, Purbachal SS Site, Mirpur Ceramics Area SS Site and Kalshi SS Site.</li> <li>On the TL/DL Route around the Tongi SS Site, Bashundhara SS Site, Kalachandpur SS Site, Purbachal SS Site, Mirpur Ceramics Area SS Site and Kalshi SS Site.</li> <li>Stakeholder Consultation Meeting at Councilor Office, Ward No. 2, Mirpur-12, Pallabi</li> <li>Bangabandhu College, Mirpur</li> </ul>
	<p>Dust to be generated from the cable route trenching and demolition works might cause health concern to the local people like allergy, respiratory issues etc.</p>	<ul style="list-style-type: none"> <li>The construction activities should be completed within the contract period.</li> <li>Awareness building to local community regarding and inform them before starting the work.</li> <li>Dust suppression activities to be maintained regularly.</li> <li>Before trenching work, the site should be wet for avoiding dust emission.</li> <li>The work site should be covered by jute carpet or other materials for</li> </ul>	<p>Consultation held at:</p> <ul style="list-style-type: none"> <li>DESCO Official at Baridhara Kalachandpur,</li> <li>Mirpur, Kalshi Site and Proposed site at Mirpur Ceramics Area.</li> <li>Civil Aviation Authority Office, Airport</li> <li>Consultation at Khilket, Pallabi and Bashanundhara areas.</li> </ul>

Themes/Topics	Issues/Problems	Suggestive Measures	Reference of Consultation
		arresting dust within the site. <ul style="list-style-type: none"> <li>The laborers should be equipped with PPE.</li> </ul>	
	Gathering of laborers from outside may increase the risk of COVID 19.	Labor shed and all other facilities should be constructed by maintaining all the safety issues to combat the COVID 19 situation.	Consultation held at: <ul style="list-style-type: none"> <li>DESCO Head Office, Nikunjo; DESCO Local Offices like Baridhara, Kalachandpur.</li> </ul>

### 9.6.1 Positive Perceptions

The local people opined that implementation of the proposed project might bring the following advantages to the project intervention areas:

- creation of employment opportunities for the local people (skilled, semi-skilled and non-skilled) during different phases of the project particularly in the construction phase;
- increasing coverage and ensuring uninterrupted supply of electricity;
- urbanization and industrialization would be facilitated;
- help in meeting the growing electricity demand of the DESCO area;
- urbanization and industrialization would generate large scale employment opportunities, which in turn would facilitate in boosting up the local and national economic growth.

**Table 9.4: Findings from Formal and Institutional Consultation**

Meetings conducted	Findings
Meeting with the Councilor, Ward No. 02 of Mirpur	<ul style="list-style-type: none"> <li>Select night time for trenching and cable laying activities.</li> <li>Ensure all safety measures to minimize any kind of accidental events.</li> <li>Choose dry season for the construction works.</li> <li>Reinstate the road in earlier condition immediate after the trenching works done.</li> </ul>
Meeting with the Manager of TGTDC	<ul style="list-style-type: none"> <li>Share the trenching and cable laying plan with the TGTDC Authority before starting the construction work.</li> <li>Share the construction schedule so that works are done in proper coordination manner.</li> <li>Ensure that the construction work does not hamper the gas supply system.</li> </ul>
Meeting with the Sub-Assistant Engineer, DWASA	<ul style="list-style-type: none"> <li>DESCO should share the trenching and cable laying plan with a formal letter to the DWASA Authority.</li> <li>DESCO should arrange a meeting with the underground utility service providers.</li> <li>DESCO should follow the underground utility setup maps or documents of the utility service providers for better understanding about the trench dimension without interrupting the utilities.</li> <li>Engage skilled laborers for trenching activities.</li> <li>DESCO should establish their underground set-up by keeping a substantial distance from the DWASA underground line for avoiding hassle during the large-scale maintenance work. They should do their plan by integrating all underground service providers, City Corporation, Police Station etc.</li> </ul>



Meetings conducted	Findings
	<ul style="list-style-type: none"> <li>The whole activities should be done in a planned way and ensure that the construction work does not hamper the underground utility system.</li> </ul>
Meeting with DESCO Officials	<ul style="list-style-type: none"> <li>Being located in a restricted area, no labor shed could be built in the proposed Kalachandpur SS Site at Baridhara. Daily basis entry for the laborers needs to be considered.</li> <li>Demolition work should be limited to daytime and the work site including the structure should be protected by safety net.</li> <li>Drilling or caterpillar demolition method should be used instead of manual hammering method to reduce noise emissions.</li> <li>The Contractor should implement the work in a manner so that the drainage system is maintained.</li> <li>Ensure health and safety measures during construction work for the laborers and the community.</li> <li>The work should be completed within the contract period to avoid prolonging exposure of the community to the construction activities.</li> <li>DESCO has not yet experienced and recorded any fatal cases in such type of construction activities.</li> </ul>
Meeting with the Principal of Bangabandhu College, Mirpur	<ul style="list-style-type: none"> <li>Having a single entrance in this institute, DESCO should consider HDD method for laying cable instead of trenching.</li> <li>For avoiding the uninterrupted entry of students, it is suggested to choose opposite side of the road as the alternative route of the proposed project.</li> </ul>

### 9.7 Meaningful Consultations during Project Implementation

Public consultation is an integral part of the project implementation. Public/community consultation and consultation with other concerned stakeholders will be continued during project implementation and as necessary during the operation and maintenance stages.

The following steps should be undertaken by the PMU and contractor to ensure ongoing participation of communities:

- DESCO field officials and contractor will conduct meetings with the people within 500m of substations/bay extensions and the communities within 50m of the underground/overhead transmission and distribution lines and other stakeholders related to the project.
- The public and other stakeholders concerned should be informed at every stage of project execution through notices, pamphlets by the proponent and contractors and they should ensure that the consultations or other engagement be disseminated for wider participation of beneficiaries or affected people.
- Project related positive and negative impacts, mitigation measures, grievance redress mechanism, construction schedule, etc. will be included for the information disclosure purposes.
- Affected people's concerns and suggestions will be responded to during the consultation for implementation of the project.
- If needed, the applicable guidelines of Government of Bangladesh for COVID-19 will be followed during the consultation.

In Bangladesh, COVID-19 situation is improving<sup>39</sup> but if the pandemic situation deteriorates again in the future, in undertaking any additional face to face consultations it will need to be ensured by the DESCO and contractor/consultants that all guidelines<sup>40</sup> of Government of Bangladesh COVID-19 and WHO hygiene guidelines are followed.

## 9.8 Information Disclosure

According to ADB's SPS 2009, meaningful consultation is important for information disclosure. All environmental safeguards documents are subject to public disclosure, and therefore will be made available to the public. The following process/steps should be maintained for disclosure:

- The EIA report will be disclosed on ADB's website once cleared by ADB as well as on DESCO's website upon project approval.
- As a part of the project, all environmental assessment documentation, including EIA reports, Bengali translated executive summary of EIA report and all environmental monitoring reports should be kept in DESCO field level offices for specific record. For illiterate people, suitable communication method can be used such as audio version of a summary of the report prepared in Bengali language on request.
- Create an accessible suggestion box at field level office where affected persons and other interested parties can easily drop their views.
- Six-monthly environmental monitoring reports during construction period reverting to annual post-construction will be timely disclosed on both the ADB and DESCO websites.

---

<sup>39</sup> <http://dashboard.dghs.gov.bd>

<sup>40</sup> <https://old.dghs.gov.bd>

**Photographs of Consultation Meetings and List of Participants**



Stakeholder Consultation Meeting at Khilket S&D DESCO



Consultation at Pallabi S&D, DESCO



Consultation at Bashundhara S&D, DESCO



Consultation by ADB TA consultants on 25.02.223 at Tongi SS site area



Consultation by ADB TA consultants at Kalachndpur SS site



Consultation by ADB TA consultants at Kalshi SS site area



Consultation by ADB TA consultants at Mirpur Ceramic SS site area



Consultation by ADB TA consultants at Kalshi SS site area



Consultation by ADB TA consultants at Bashundhara SS site area



Consultation by ADB TA consultants at Purbachal SS site area



Consultation by ADB TA consultants at Rupayan City SS site area



Consultation by ADB TA consultants at Tongi SS site area



Consultation by ADB TA consultants at Airport SS site area



Stakeholder Consultation Meeting at Councilor Office, Ward No. 02, Pallabi, Mirpur



Consultation with Councilor of Ward No. 02, Pallabi, Mirpur



Consultation with Principal of Bangabandhu College, Mirpur



Consultation with DESCO Officials



Consultation with Manager of Titas Gas



Consultation with a Sub-Assistant Engineer of DWASA



Proposed SS Area at Civil Aviation Authority Office



At Baridhara around the Kalachandpur SS Site



Proposed SS Area at Mirpur Ceramics



Bangabandhu College, Mirpur



Mirpur Ceramics Area



Proposed SS Area at Darail, Tongi



Proposed SS Area at Purbachal



At and around the Purbachal SS Site





Darail, Tongi Area



Kalshi Area



Project Site under Rupayan City



Mirpur, Kalshi Site

**Figure 9.2: Consultation Meeting with the Officials and Local People at Different Locations of the Project and Study Area**



**Table 9.5: Participants List of Informal Consultations Conducted by ADB TA Consultants**

Sl. No	Name	Occupation/ Designation	Male (M)/Female (F)	Mobile No
<b>Rupayan City Area</b>				
1.	Eng. Masum	Deputy Manager (Electro Mechanical), Rupayan City Uttara	M	-
2.	Eng. Md. Ahsan	Deputy General Manager (Electrical), Rupayan City Uttara	M	01708405553
3.	Eng. Md. Altaf Hossain	Sr. General Manager (Construction), Rupayan City Uttara	M	01313497029
4.	Tipu Sultan	Project Manager, Rupayan City Uttara	M	-
5.	Eng. Javed	Senior Manager, Rupayan City Uttara	M	-
6.	Harunur Rashid	Business (Residence of adjacent area Nolbok)	M	01912717926
7.	Rafikul Islam	Business (Residence of adjacent area Nolbok)	M	01712039930
<b>Tongi SS Area</b>				
8.	Momtazuddin	Manager, Mayer Doa Real-estate and Construction ltd.	M	01716510592
9.	Md. Sobuj Fakir	Business	M	-
10.	Md. Abdur Rob	Electrician	M	-
11.	Rajia Akter	Housewife	F	-
12.	Shah Alam	Service	M	01720376189
13.	Abul Hasem	Govt Service	M	-
14.	Nurjahan	Housewife	F	-
15.	Aklima	Housewife	F	-
16.	Airin akter	student (class 4)	F	-
17.	Md. Monir	Electrician	M	01748016892
18.	Md. Mokhlesur Rahman	Cook	M	-
19.	Md. Javed Chowdhury	Retired official	M	01937958608
<b>Tongi -27 (Existing SS)</b>				
20.	Md. Shakhawat Hossain	SDE, Tongi West (S&D), 01755637601	M	-
21.	Kamrul Hasan	SAE, Tongi West (S&D)	M	01313710818
22.	Abdul Matin	SSA, Tongi 27	M	01764373533
<b>Airport SS</b>				
23.	Tutul	Line Man, CAAB	M	01731500338
24.	Abu Sad	Line Man, CAAB	M	01744775304
25.	Mruduzzaman	Teacher	M	-
<b>Purbachal SS</b>				
26.	Mst Rohela	Housewife	F	-
27.	Monira Khatun	Housewife	F	-

Sl. No	Name	Occupation/ Designation	Male (M)/Female (F)	Mobile No
28.	Samsunnahar	Housewife	F	-
29.	Dilara Begum	Housewife	F	-
30.	Aleya Akter	Housewife	F	-
31.	Maksuda Begum	Housewife	F	-
32.	Rokasana Akter	Housewife	F	-
33.	Asma Khatun	Housewife	F	-
<b>Bahundhara M Block SS</b>				
34.	Mizanur Rahman	Employee of Bahundhara Group	M	-
35.	Abdur Rashid	Employee of Bahundhara Group	M	-
36.	Abdul Hamid	Employee of Bahundhara Group	M	-
<b>Kalachandpur SS</b>				
37.	Md. Mamun	SSA, DESCO	M	-
<b>Kalshi SS</b>				
38.	Monsur Chowdhury	Retired Government Official	M	-
39.	Hasibur Rahman	Retired Government Official	M	-
40.	Abur Razzak	Retired	M	-
41.	Munir Hossain	Retired Government Official	M	-
42.	Abdul Huq	Retired Government Official	M	-
43.	Showkat Hossain	Retired	M	-
44.	Mahmudur Rahman	Retired Government Official	M	-
<b>Mirpur Ceramic</b>				
45.	Mukbul Hossain	Employee if Mirour Ceramic	M	-
46.	Rashedul Islam	Employee if Mirour Ceramic	M	-
47.	Faruk Ahmed	Employee if Mirour Ceramic	M	-
48.	Saheb Ali	Worker of Mirour Ceramic	M	-
49.	Fokruddin	Worker of Mirour Ceramic	M	-
50.	Abbas Uddin	Worker of Mirour Ceramic	M	-
51.	Kuddus Mia	Worker of Mirour Ceramic	M	-
52.	Haron Mia	Worker of Mirour Ceramic	M	-
53.	Zulhas Uddin	Security Guard of Mirpur Ceramic	M	-

**Table 9.6: Participants List of KII and Informal Consultations Conducted by CEGIS**

Sl. No.	Name	Occupation/ Designation	Mobile No.
1.	Ms. Shamimara	Project Director & Executive Engineer DESCO	01711404681
2.	Engr. Md. Raihan Arafin	Executive Engineer, Tongi (West) S & D Division	01713090600
3.	Md. Al Amin	Service (PGCB-Sub Assistant Engineer)	01715309841
4.	Rifat Khan	Service (DESCO-Substation Attendant)	01993263556
5.	Md. Majharul	Sub Assistant Engineer, DESCO	01777739211
6.	Md. Nazim Uddin	Manager, DESCO	01713039648
7.	Md. Alamgir	Sub Divisional Engineer, DESCO	01730794825
8.	Kamrul Islam	S.S.A, DESCO	01711904095
9.	Mahabubul Alam	Sub Assistant Engineer, DESCO	01787680516
10.	Md. Mirajur Rahman	Junior Engineer, DESCO	01911413413
11.	Abdul Ali Molla	Councilor, 52 no ward, Gazipur City Corporation	01711459111
12.	Md. Samaul Islam	Word Secretary	01670767034
13.	Humayan Kabir	Manager, TGTDCCL	01939921278
14.	Md. Robin Hasan	Sub-Assistance Engineer, DWASA	01675715883
15.	Professor. Md. Jahurul Alam	Principal, Bangabandhu College, Mirpur	01711260326
16.	Md. Mamataz Uddin	Service	01958464003
17.	Rozina Akter	Shop keeper	-
18.	Md. Shahadat Hossan	Shop keeper	01966861764
19.	Md. Yasim	Shop keeper	01876335875
20.	Nazrul Islam	Labor	01952269107
21.	Hasina Khatun	Business	-
22.	Md. Ananta	Agriculture	01939572129
23.	Md. Sajib Sarker	Business	01919506379
24.	Sultans Yeasmin	Service	-
25.	N.A. Salam	Service	01832386202
26.	Md. Khokon	Labor	01406156167
27.	Md. Shazad	Labor	01923036368
28.	Md. Azizul	Shop keeper	01840318764
29.	Md. Jakir Hossen	Labor	01937000714
30.	Momina Begum	Housewife	-
31.	Md. Ashik	Service	01762986917
32.	Md Eleyus	Service	01710885569
33.	Md. Tota Mia	Agriculture	01745796018
34.	MST. Shimu	Agriculture	01879936666
35.	Al Amin	Service	01687446377

Sl. No.	Name	Occupation/ Designation	Mobile No.
36.	Mita Sharmin	Student	01946334417 (On Request)
37.	Md. Lokman Hossen	Business	01946334417
38.	Tofazzal Hossen	Business	01861783687
39.	Md. Akash	Business	01910081507
40.	Nilufar Begum	Housewife	-
41.	Md. Saidul Islam	Student	01408967795
42.	Md. Sifat	Student	01728305073
43.	Sunder Ali	Business	01989847717
44.	Habibur Rahman	Driver	01984572100
45.	Md. Farid Hosen	Business	01704528493
46.	Md. Moni	Land Owner	01927365238
47.	Md. Kholil	Driver	01948694397
48.	Md. Titu Bhuiya	Business	01984179848
49.	Md. Moskul	Business	01937813678
50.	Md. Polash	Business	01822108944
51.	Rina Begum	Housewife	-
52.	Shapla Akter	Housewife	-
53.	Sharmin Khatun	Housewife	-
54.	Morgina Begum	Housewife	-
55.	Shefali Khatun	Housewife	-
56.	Sadia Islam	Student	-
57.	Nasrin Sultana	Student	-
58.	Sadia Nowrin	Student	-
59.	Md. Mostofa	Service	-
60.	Alam Mia	Rickshaw Puller	-
61.	Md. Liton	Rickshaw Puller	-
62.	Kayas Shikder	Rickshaw Puller	-
63.	Jahangir Alam	Day Labor	-
64.	Md. Ripon Sarkar	Shopkeeper	01788934177
65.	Emon Hosen Babu	Shopkeeper	01766678791
66.	Monowar Ali	Shopkeeper	-
67.	Aminul	Pedestrian	-
68.	Jiaur Karim	Pedestrian	-
69.	Rokon Mahamud	Pedestrian	-
70.	Latif Uddin	Pedestrian	-
71.	Ruhul Amin	Service	-
72.	Motin Mia	Service	-
73.	Liyakat	Service	-
74.	Istiaq Hosen	Service	-

**Table 9.7: Participant List of the Stakeholder Consultation Meeting Conducted by DESCO at Khilkheta Area**

Sl. No	Name	Occupation	Male (M)/Female (F)	Mobile No
1.	Ahsan Ullaha,	Private job	M	01711575349
2.	Md. Shahinur Islam	Private job	M	01715029535
3.	Siddique rahaman, BSL	Private job	M	01713505670
4.	Mihajul Alam Rony	Private job	M	01619250708
5.	Siddique	Private job	M	01612601191
6.	Sarif Ahamed	Private job	M	01713156991
7.	Rupali haque Chowdhury	Government job	F	01914254471
8.	Ainul Nishat	Government job	F	01537471329
9.	Md. Tafij uddin	Government job	M	01733196649
10.	Md. Mohsin Mia	Business	M	01793263548
11.	Mst. Mitu	Private job	F	01797759680
12.	Parvin Akter	Private job	F	01951866024
13.	Najma	House wife	F	01951866024
14.	Md. Ruhul Amin	Business	M	01713156990
15.	Md. Bellal hossain	Business	M	01938161997
16.	Nayan Mia	Business	M	01674495344
17.	Md. Anisur Rhaman	Business	M	01714773593
18.	Anik barman	Business	M	01715716641
19.	Md. Golam Rabbani	Business	M	01716359539
20.	Farzana	House wife	F	01732003122
21.	Khabir Uddin	Government job	M	01701718499
22.	Md. Akramul Hoque	Private job	M	01744496172
23.	Shuvo Das	Private job	M	01917404582
24.	Rafiqul	Private job	M	01748534248
25.	Rahamat	Private job	M	01710588561
26.	Jwel	Private job	M	01710762888
27.	Rajib	Private job	M	0198763990
28.	Rahim Ali	Private job	M	0185401957
29.	Abdul Kuddus	Government job	M	01732757803
30.	Najmun Haque	Business	M	01912610271
31.	Masudur Rahaman	Private job	M	01966889046
32.	Aiyub Ali	Private job	M	01731231244
33.	Md. Babul	Private job	M	01552408428
34.	Md. Mostafa Sikdar	Private job	M	01704626372
35.	Md. Abdul Rashid	Business	M	01845749944
36.	M. M. Siddique	Business	M	01711898216
37.	Abul Hossain	Business	M	01712391629

Sl. No	Name	Occupation	Male (M)/Female (F)	Mobile No
38.	M A Sobahan	Business	M	01977584036
39.	Md. Ayub Ali	Government job	M	01731234299
40.	Md. Anowar Hosain	Private job	M	01741138826
41.	Md. K S Alamgir	Private job	M	01715761036
42.	Md. Nojrullha	Private job	M	01819164404
43.	Monirujjaman	Private job	M	01671816474
44.	Shaina Aktar	House wife	F	01826435563
45.	Najrul islam	Business	M	01718473515
46.	Gajjul Hoqe	Private job	M	01711979172
47.	Mohasin Reza	Private job	M	01832524886
48.	Abdur Rashid	Private job	M	-
49.	Abdus Salam	Private job	M	01833684513
50.	Shamsun Nahar	Private job	F	01711485729

### সভায় উপস্থিত ব্যক্তিবর্গের তালিকা।

অধি ২৩/০৫/২০২৩ তারিখে ভেসকো'র অংশীজনের সহিত মতবিনিময় সভায় উপস্থিত সদস্যগণের তালিকা।

উপস্থিত সদস্যগণের নাম, পদবী, প্রতিষ্ঠানের নাম ও যোগাযোগ : (ক্রমিকক্রমে বি-৩৭৮)

(জ্যেষ্ঠতার ক্রমানুসারে নয়)

ক্রমিক নং	নাম ও পদবী	সংস্থান নাম	ই-মেইল ও মোবাইল নং	স্বাক্ষর
০১	আব্দুল মান্নান উদ্দিন	বিশ্ববন্দু	০১৭ ১১৫২৫৩৫	
০২	শ্রী: সন্দীপ কুমার হালদার কাজমাটিকার মালিক	বিশ্ববন্দু	০১৭ ১৫০২৯৫৩৫	Mr. Sandip Kumar
০৩	শ্রী: সন্দীপ কুমার হালদার কাজমাটিকার মালিক	কম্পিউটার সিস্টেম	০২৭২৬৫০৬৭০	
০৪	শ্রী: সন্দীপ কুমার হালদার কাজমাটিকার মালিক	কম্পিউটার সিস্টেম	০১৭ ৯২৫০৭০৪	
০৫	মি: সন্দীপ		০১৭ ১২৬০১১১	Siddik
০৬	শ্রী: সন্দীপ কুমার হালদার	কম্পিউটার সিস্টেম	০১৭ ১৩১৫৬৭৭	
০৭	On behalf of Kempali H. Chy.	বিশ্ববন্দু	০১৭ ১২৫০৭৭২	
০৮	Ainul Nishat Administration Manager	Corona Fashion Ltd.	০১৫৩৭৪৭২৩১৭	
০৯	শ্রী: সন্দীপ কুমার হালদার	বিশ্ববন্দু-২	০১৭ ৩৩১৭৬৬৪	সন্দীপ
১০	শ্রী: সন্দীপ কুমার হালদার	বিশ্ববন্দু	০১৭ ৯৩২৬৩৫৫	
১১	শ্রী: সন্দীপ কুমার হালদার	বিশ্ববন্দু	০১৭ ৯৭৭৫৯৬০	
১২	শ্রী: সন্দীপ কুমার হালদার	বিশ্ববন্দু	০১৭ ৫১৮৬৬০২	সন্দীপ
১৩	শ্রী: সন্দীপ কুমার হালদার	বিশ্ববন্দু	০১৭ ৫১৮৬৬০২	সন্দীপ
১৪	শ্রী: সন্দীপ কুমার হালদার	কম্পিউটার সিস্টেম	০১৭ ১৩১৫৬৭৭	
১৫	Mr. Bellal Hossain	Romjan sons	০১৭ ৩৪১৬০৩৩২	
১৬	Mayon miel	Mohammed Electrical	০১৬ ৭৪৭৫৩৬৪	

সভায় উপস্থিত ব্যক্তিবর্গের তালিকা।

অন্য ২৩/০৫/২০২৩ তারিখে ডেসকো'র অংশীজনের সহিত মতবিনিময় সভায় উপস্থিত সদস্যগণের তালিকা।

উপস্থিত সদস্যগণের নাম, পদবী, প্রতিষ্ঠানের নাম ও যোগ্যতা :

(ঘোষণাক্রমে ক্রমানুসারে নয়)

১৭	কোঃ জাহিদুল হক খান	সিমানক্রেতা	০১৭৭৭৭ ০১৭১৫৭৭৭৭৭৭	
১৮	Anik Boyman	খুলিষ্ট	০১৭১৫৭১৬৬৫১	
১৯	শ্রীঃ মোহাম্মদ হোসেন	সিমানক্রেতা	০১৭১৬ ৩৯৯৫৯৭	
২০	ফারুক হোসেন	৫	০১৭৩২০০৩১২২	
২১	শ্রীঃ জাহিদুল হক	সিমানক্রেতা	০১০১৫১৪৫৭৭	
২২	শ্রীঃ মোহাম্মদ হোসেন	সিমানক্রেতা	০১৭৫৫৫৫৭৭ ৭২	
২৩	Shuvo Das	সিমানক্রেতা	০১৭১৭৫০৫৫	
২৪	রাজিবুল হক		০১৭১৫০৩৬৪৬	
২৫	শ্রীঃ	Nemapore	০১৭১০৫৫৫৫৬১	
২৬	শ্রীঃ	সিমানক্রেতা	০১৭১০৭৬২৪৫৫	
২৭	রাজিবুল হক	সিমানক্রেতা	০১৭১৭৬৩০০৫	
২৮	রাজিবুল হক	সিমানক্রেতা	০১৭১৫০১৫৫	
২৯	শ্রীঃ মোহাম্মদ হোসেন	সিমানক্রেতা	০১৭১২ ৭৫৭৫০৩	
৩০	শ্রীঃ মোহাম্মদ হোসেন	সিমানক্রেতা	০১৩১২ ৬১০৫৫	
৩১	শ্রীঃ মোহাম্মদ হোসেন		০১৭১৫৫৬৬২০৫৫	
৩২	শ্রীঃ মোহাম্মদ হোসেন		০১৭১০২ ২০২৪৫	



সভায় উপস্থিত ব্যক্তিবর্গের তালিকা।

অন্য ২৩/০৫/২০২৩ তারিখে ডেসকো'র অংশীজনের সহিত মতবিনিময় সভায় উপস্থিত সদস্যগণের তালিকা।

উপস্থিত সদস্যগণের নাম, পদবী, প্রতিষ্ঠানের নাম ও যাকর।

(সম্মুখভাৱে ক্রমানুসারে নয়)

৩৩	শ্রীঃ বাবুল	ফিল্ড অফিস	০১৫৫২০০৫০১৬	Bue
৩৪	শ্রীঃ মোস্তাফিজুল মিল্লাহ	চিনিপাড়	০১৭০৪৬২৬৩৭২	Suy
৩৫	শ্রীঃ আবদুল রাহিম	ফিল্ড অফিস	০১৪৫৫৭৪৭৩৫৭	Aso
৩৬	এস এস সিদ্দিক	ফিল্ড অফিস	০১৭১১৪৭৪২১৬	Stave
৩৭	আবুল হোসেন	ফিল্ড অফিস	০১৭১২৩৩১৬২৭	Und
৩৮	এস এ মোহাম্মদ	ফিল্ড অফিস	০১৭৭৭৫৪৫৩৬	Amr
৩৯	শ্রীঃ মোস্তাফিজুল মিল্লাহ	ফিল্ড অফিস	০১৭৩১২৩৪২৭৭	Und
৪০	শ্রীঃ মোস্তাফিজুল মিল্লাহ	ফিল্ড অফিস	০১৭৫১১৩৪৪২৬	Amr
৪১	শ্রীঃ হুসেইন মোস্তাফিজুল মিল্লাহ	ফিল্ড অফিস	০১৭৫৫৭৬১০৩৬	Amr
৪২	শ্রীঃ মোস্তাফিজুল মিল্লাহ	ফিল্ড অফিস	০১৪১৭-১৬৫৫৭	Amr
৪৩	মুহাম্মদ হোসেন	ফিল্ড অফিস	০১৬৫১৪১৬৫৭৫	Amr
৪৪	মুহাম্মদ হোসেন	ফিল্ড অফিস	০১ ৬২৬৫৩৫৫৬৩	Amr
৪৫	মুহাম্মদ হোসেন	ফিল্ড অফিস	০১৫৫৫৫৫৫৫৫	Amr
৪৬	মুহাম্মদ হোসেন	ফিল্ড অফিস	০১৫৫৫৫৫৫৫৫	Amr
৪৭	মুহাম্মদ হোসেন	ফিল্ড অফিস	০১৫৫৫৫৫৫৫৫	Amr
৪৮	Mohsin Reza	ফিল্ড অফিস	০১৫৩২৫২৫৪৬	Amr
৪৯	মুহাম্মদ হোসেন	ফিল্ড অফিস	০১৪৩৩৬৪৫১৩	Und

3

৫০	Shamsun Nahar	Khilkhet	০১৭১১৪৪৫৭২৭	Sham
৫১				

**Table 9.8: Participant List of the Stakeholder Consultation Meeting Conducted by DESCO at Pallabi Area**

Sl. No	Name	Occupation	Male (M)/Female (F)	Mobile No
1.	Md. Fazlul Haque	Businessman	M	01684327162
2.	Faridujjaman, Teacher	Job (teaching)	M	01774514632
3.	Mahabubur Rahman	Private job	M	01674073027
4.	Md. Aktarujjaman Mintu	Private job	M	01721877717
5.	Md. Humayun Kabir Chowdhury	Private job	M	0171599697
6.	Md. Mamunur Rashid	Private job	M	01795424978
7.	Mohammad Sazzad Hossain	Private job	M	01676058804
8.	Md. Jahangir Alam mithu	Private job	M	01712095089
9.	Md. Alo	Private job	M	01818717621
10.	Shahabuddin Ahamed Salim	Government job	M	016737771333
11.	Muhammad Newas	Private job	M	01711780770
12.	Malakar Ch. Barman	Private job	M	01992503165
13.	Souul Hossain	Private job	M	01719477334
14.	Md. Nazir Uddin	Private job	M	01734874069
15.	Md. Sabuj Mia	Private job	M	01734874069
16.	Md. Sohorab	Private job	M	01726985350
17.	Abdul Karim	Business	M	01932268879
18.	Md. Mamun	Business	M	01953406569
19.	Md. Kaium Hossain	Business	M	01836667659
20.	Md. Mohammad Ali	Business	M	01720836443
21.	Md. Saiful Islam	Business	M	01725656688
22.	Md. Rasel	Private job	M	01702485210
23.	Roksana Akter Lipi	Housewife	F	01777643198
24.	Md. Abul Hossain	Business	M	01780263105
25.	Mst. Suraya yasmin	Private job	F	01989852381
26.	Tanzila Yasmin	Government job	F	01740208171
27.	Thamina Nasrin	Private job	F	01722044607
28.	Fatima Jannat	Private job	F	01726295948
29.	Joynab Nesa	Housewife	F	-
30.	Md. Abul Hossain	Private job	M	01917163710
31.	Sayad Mainul Islam	Private job	M	01819134785
32.	Nasrin Akter	Housewife	F	01917163710
33.	Julfiger Haidar	Government job	M	01712093238
34.	Abdul karim	Government job	M	01932268879
35.	Abidur Rahman	Government job	M	01714164896
36.	Omor Ali	Private job	M	01996069152
37.	Nowab mobaraqe Ullha	Private job	M	01836555564
38.	Iqbal Hossain	Private job	M	01714319881
39.	Shaidullha	Private job	M	01734904841

### List of persons present in the meeting

List of members present in the discussion meeting with the participants of DESCO on today 24/05/2023.

Name, designation, institution and signature of the members present: (Dakshin SFD)

SLNo.	Name of the participant & Designation	Organization	Contact No. & email	Signature
01	Md. Faruk Haque A/D, D. B. J. M. Masjid	D. B. J. M. Masjid Mosjid complex	01684327162	[Signature] 24/5/23
02	Complex	[Signature]	—	—
03	Faiduzzaman Teacher	Mosjid Durrani Madrasah	01774574632	[Signature]
04	Mahabubur Rahman	n	01679073027	[Signature] 24/5/23
05	Md. Akhtaruzzaman Mintu	Mirpur ceramics	01721-877717	[Signature] 24/05/23
06	Md. Humayun Kabir chowdhury	Mirpur ceramics	01715-99677	[Signature] 24/05/23
07	Md. Mamunur Rashid	Swaranganagar Mirpur-12	01795424978	[Signature] 24.05.23
08	Mohammad Sazzad Hossain	Counsellor 270 Wood	0167605804	[Signature] 24/05/23
09	Md. Zahangir Alam mithu	Dakshin	01712095089	[Signature] 24/05/23
10	Md. Alo	n	01818717621	[Signature]
11	Shahabuddin Ahmad Sation	n	01673777133	[Signature]
12	Muhammad Nawaz	Dakshin	0171780770	[Signature]
13	Mehnaz Ch. Barman	n	01992503165	[Signature]
14	Sauel Hossain	n	01719427339	[Signature]
15	Md. Nazim Uddin	32, Dakshin	01724-576202	[Signature]
16	[Signature]	n	01734870069	[Signature]

### List of persons present in the meeting

List of members present in the discussion meeting with the participants of DESCO on today 24/05/2023.

Name, designation, institution and signature of the members present:

17	ডাঃ আব্দুল হক 01726933330	মিরপুর 37	—	Signature
18	ডাঃ আব্দুল হক	মিরপুর 07286	0193226889	ডাঃ আব্দুল হক
19	ডাঃ আব্দুল হক	মিরপুর	0195340658	Signature
20	ডাঃ আব্দুল হক	"	0182667659	Signature
21	ডাঃ আব্দুল হক	"	01720836443	Signature
22	Mr: Shafiqul Islam	Mirpur center mil	0172565668	Signature
23	ডাঃ আব্দুল হক	"	0170248550	Signature
24	ডাঃ আব্দুল হক	মিরপুর মিরপুর	01777643198	Signature
25	Mr. Abul Hossain	Mirpur	01780263105	Signature
26	Mst. Suraya Yasmin	Mirpur	0198985231	Signature
27	Tanzila Yasmin	Mirpur-12	01740208171	Signature
28	Tahmina Nazim	Mirpur-10	01722044667	Nazim
29	Fatiha Jannat	Mirpur-11	01726296948	Signature
30	ডাঃ আব্দুল হক	মিরপুর	—	ডাঃ আব্দুল হক
31	ডাঃ আব্দুল হক	মিরপুর	01717163710	Signature
32	ডাঃ আব্দুল হক	মিরপুর	02622208965	Signature

### List of persons present in the meeting

List of members present in the discussion meeting with the participants of DESCO on today 24/05/2023.

Name, designation, institution and signature of the members present:

33	মাহমুদ আলী	সহকারী	01917163710	
34	Jalil Haidar	Sec-12 Fawabi	01742093238	
35	আব্দুল করিম	সি.এস.ও.	01932268879	
36	আব্দুল হান্নান	সি.এস.ও.	01714169896	
37	শুভ্র আলী	Section-12 Mirpur	01996069152	
38	নজরুল ইসলাম	সহকারী	01836555569	
39	ইকবাল হোসেন	সি.এস.ও.	01741319881	
40	কারী মুন্সার	সি.এস.ও. সি.এস.ও.	02968208682	
41				
42				
43				
45				
46				
47				
48				
49				

**Table 9.9: Participant List of the Stakeholder Consultation Meeting Conducted by DESCO at Bashundhara Area**

Sl. No	Name	Occupation	Male (M)/Female (F)	Mobile No
1.	Md. Mizanur Rahman,	Joint Chief Engr. (Electrical), Basundhara Group	M	01730071450
2.	Md. Ruhul Amin	Private job	M	01721964476
3.	Apurbo Gomosta	Private job	M	01701217489
4.	Engr. Md. Abdus Sobahan	Private job	M	01711898794
5.	Md. Mehedi hasan	Private job	M	01671040325
6.	Md. Mofizur Rahaman	Private job	M	01912158223
7.	Md. Rezaul karim	Private job	M	01912925891
8.	Rina Akter	Private job	F	
9.	Rebeka Sultana	Housewife	F	
10.	Mahinur Akter	Private job	F	
11.	Afroza Sultana	Government job	F	0183500515
12.	Mohammad Ali	Private job	M	01762537703
13.	Md. Habibur	Private job	M	01715127126
14.	Muha. Kamruzzaman Kakon	Private job	M	01701696840
15.	Md. Hanif	Private job	M	01913040439
16.	Md. Shadul	Government job	M	01711125815
17.	Meherunnessa	Private job	F	01730441736
18.	Md. Babul	Private job	M	01711043263
19.	Md. Rostom	Private job	M	01712822494
20.	Md. Shamsuddin	Private job	M	01619127247
21.	Md. Sohel Rana	Private job	M	01821882793
22.	Md. Saiful	Private job	M	01752085352
23.	Md. Mamunun Al Karim	Private job	M	01911489189
24.	Hfizur Rahaman	Private job	M	01767003540
25.	Mezanur Rahman	Private job	M	01741767000
26.	Mahabu hasan	Private job	M	0199169929
27.	Babul Mia	Business	M	01673714868
28.	Md. Masum Billha	Business	M	01979845304
29.	Sohel rana	Business	M	01911491523
30.	Md. Mazedur Rahaman	Business	M	01657992904
31.	Md. A Mannan	Business	M	01715627306
32.	Jahangir Alam	Business	M	01937705931
33.	Sharmin Rahaman	Business	M	01759818484
34.	Rehena begum	Government job	F	01711119232

Sl. No	Name	Occupation	Male (M)/Female (F)	Mobile No
35.	Obaidul hoque	Private job	M	01903182198
36.	Sowpan	Private job	M	01712716636
37.	Jakir Hossain	Private job	M	01925838804
38.	Salama Akter	Housewife	F	-
39.	Md. Al-Amin	Private job	M	-
40.	Mithu Akter	Private job	F	01711890806
41.	Selina parvin	Private job	F	01711274141
42.	Iqbal hossain	Private job	M	0171126498
43.	Mohsena Banu	Housewife	F	-
44.	Abdur Rajjaque	Government job	M	0173562830
45.	Abdul huq	Private job	M	0173231616
46.	Saiful islam	Private job	M	01711821532
47.	MA ohab	Private job	M	01716163732

### List of persons present in the meeting

List of members present in the discussion meeting with the participants of DESCO on today 25/05/2023.

Name, designation, institution and signature of the members present: (Basundhara S&D)

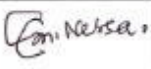
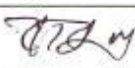
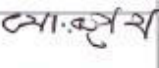
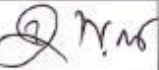



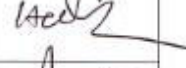





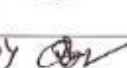
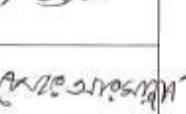
Sl.No.	Name of the participant & Designation	Organization	Contact No. & email	Signature
01	Md. Mizanur Rahman Joint. chief. Engrg (Eleet)	Basundhara Group	01730071450	
02	Md. Ruhul Amin Asst. Engr.	"	01721964476	
03	Apueba Gomsta Asst. Engineer	"	01701217489	
04	Engr. Md. Abdus Sobhan	Plot 324 Rd-10 Block-4.	01711292798	
05	Md. Mahdi Hasan	Amin Tausif Group H-9B, R-07, Sec-04. Uttara, Dhaka.	01671040325	
06	Md. Motizul Rahman	Basundhara	01712-158223	
07	Md. Rezaur Karim.	Basundhara	01912925891	
08	Rina Akter	Basundhara		
09	Rebeka Sultana	Basundhara		
10	Mahinur Akter	Basundhara		
11	Afsoza Sultana	Basundhara	01813500515	
12	Mohammed Ail	Basundhara	01762537703	
13	MD. HABIBUR		01715127126	
14	Maha. Kamruzzaman Kakor	Basundhara Block-k, Road-9	01701606840	
15	Md. HANIF	KURIL	01913040439	
16	Md. Shavedul	Dugandhara	0171125815	



### List of persons present in the meeting

List of members present in the discussion meeting with the participants of DESCO on today 25/05/2023.

Name, designation, institution and signature of the members present: (Basundhara S&D)

17	Meharun Nissa.	@addae	0173044 1736	
18	Md. BABUL	satankul	01711043263	
19	Md. Mostam	"	01712822494	
20	MD SAAMSUDDIN	shahsadar	01619722 47	
21	ডাঃ মোস্তাফিজুল হক	টিসসি	01821889793	
22	ডাঃ সফিউল্লাহ	Nurser Chak	01752085952	
23	ডাঃ মোস্তাফিজুল হক	Sayed Wajid	01911489189	
24	ডাঃ মোস্তাফিজুল হক	ডাঃ মোস্তাফিজুল হক	01767103356	
25	HEZAMUZZ ROBBAN	ডাঃ মোস্তাফিজুল হক	01761767555	
26	Mahabub Hasan	House 43/C R. Basundhara	0109169929	
27	BABUL MVA	BERHAD	01675714858	
28	ডাঃ মোস্তাফিজুল হক	KABIRTEKA	017070845 304	
29	ডাঃ মোস্তাফিজুল হক	Basundhara	01911091523	
30	H. Nazidur Rahm.	Basundhara	01657-592904	
31	ডাঃ মোস্তাফিজুল হক	ডাঃ মোস্তাফিজুল হক	01715627306	
32				

### List of persons present in the meeting

List of members present in the discussion meeting with the participants of DESCO on today 25/05/2023.

Name, designation, institution and signature of the members present: (Basundhara S&D)

33	আব্দুল হামিদ	সিনিয়র	01937705931	আব্দুল হামিদ
34	আব্দুল মালিক হামিদ	সিনিয়র	01759818989	Shamim
35	আব্দুল হামিদ হামিদ	সিনিয়র	0171119232	আব্দুল হামিদ
36	আব্দুল হামিদ হামিদ	সিনিয়র	0220262226	আব্দুল হামিদ
37	আব্দুল হামিদ	সিনিয়র	01712716636	আব্দুল হামিদ
38	আব্দুল হামিদ হামিদ	সিনিয়র	01925838887	AKIR
39	আব্দুল হামিদ হামিদ	সিনিয়র	—	আব্দুল হামিদ
40	Md. Al-Amin	votana	—	Amin
41	আব্দুল হামিদ হামিদ	সিনিয়র	01711890806	আব্দুল হামিদ
42	আব্দুল হামিদ হামিদ	সিনিয়র	01711274141	আব্দুল হামিদ
43	আব্দুল হামিদ হামিদ	সিনিয়র	01711260098	আব্দুল হামিদ
45	Mohsena-Banu	Basundhara	—	Banu
46	Abdur Raizane	Gr. Basundara	01735628930	Raizane
47	Abdul HUG	votana	01732-3186	abdul
48	Sairul Islam	Basundara	01711821532	Sairul
49	MA oha	Basundhara	017166332	o/ha

**Table 9.10: Participant List of the Stakeholder Consultation Meeting Conducted by CEGIS**

Sl. No	Name	Occupation	Male (M)/Female (F)	Mobile No
1.	Md. Samad Hossen	Councilor, Ward 07	M	01676085804
2.	Md. Sanaul Islam	Ward Secretary, Ward 02, DNCC	M	0167767034
3.	Md. Nazmul Huda	AE, DNCC	M	017773936
4.	Md. Mirajur Rahman	Jr. Engineer, DNCC	M	01711898794
5.	Kazi Kamrul Hasan	-	M	0171500224
6.	Hazra Iqbal	-	M	01712554072
7.	Md. Suman	-	M	01911703786
8.	Md. Mohsin	Business	M	01772935910
9.	Md. Omar Faruk	-	M	01719910995
10.	Md. Khaled Sultan Kham	-	M	01742964871
11.	Ranjit Babu	Business	M	01760722077
12.	Md. Ruhul Amin	Job	M	01930206305
13.	Md. Atik Baks	Business	M	01937424871
14.	Md. Joyanal Abedin	Imam	M	01732298602
15.	Shahbuddin Ahmed	Business	M	01673777133
16.	Md. Khurshed Alam	-	M	01819487165
17.	Md. Selim Haydar	-	F	01323382376
18.	Md. Nowaj	Customer, DESCO	M	01673777122
19.	Sheikh Md. Yusuf Ali	Business	M	01819110161
20.	Md. Nur Uddin	Business	M	01918923070
21.	Md. Main	Business	M	01713820095
22.	Md. Nadim		M	-
23.	Shahidul	-	M	-
24.	Khaza Ahmed	-	M	-
25.	Md. Ariful	-	M	-
26.	Farhana Sharmin	-	F	01767049961
27.	Sharmin Akter	Researcher	F	01858889673
28.	Md.Aminur Rashid	Consultant	M	01712245242
29.	Md. Shafiqul Islam	Consultant	M	01918897772



ডেসকো এলাকায় বৈদ্যুতিক অবকাঠামোর সম্প্রসারণ ও শক্তিশালীকরণ সমীক্ষার  
পরিবেশগত ও সামাজিক প্রভাব নিরূপণ বিষয়ক  
মত বিনিময় সভায় অংশগ্রহনকারীদের তালিকা

স্থান- ২ নং ওয়ার্ড কাউন্সিলর কার্যালয়ের মিটিং রুম  
জেলা- ঢাকা

ওয়ার্ড নং- ২ (ঢাকা উত্তর সিটি কর্পোরেশন)  
সময়- ১১:০০

থানা- পল্লবী  
তারিখ- ২৩.১১.২০২১

ক্রমিক নং	নাম	পেশা/পদবী	মোবাইল নং	স্বাক্ষর
০১	মো: মাহমুদ হোসেন	কমিউনিটি ওয়ার্ড-০২	০১৬ ৭৬০৪৫৪০৫	
০২	মো: হুমায়ুন হোসেন	ওয়ার্ড মাস্টার ৩-০২, ডিএফ	০১৬-৭০৭৮০৩৫	
০৬	স্বাক্ষর: মো: মাহমুদ হোসেন	মত: মূল্যায়নকারী	০১৭২৭৩৯১৩৬	
০৪	ডো: সিরাজুল হক	ডো: ইঞ্জিনিয়ার	০১৭১১৫১৩৫১৩	
০৫	রাজী-বাহাদুর হোসেন	স্বাক্ষরকারী	০১৭১৫০০২২৭	
০৬	হাজিরা-ই-হোসেন	১১	০১৭১২৫৬৫০৭২	
০৭	ডো: সুব্রত	১১	০১৭১১৭০৩৭৪৬	
০৮	ডো: সফিয়ার	স্বাক্ষরকারী	০১৭২২৭৩৫৭১০	
১/১	ডো: মোঃ মাহমুদ হোসেন	স্বাক্ষরকারী	০১৭১৭৭০৭৭৫	
১০	ডো: মাহমুদ হোসেন	স্বাক্ষরকারী	০১৭২৭২৬৫৪৫	
১১	স্বাক্ষরকারী	স্বাক্ষরকারী	০১৭৬০৭২২০৭৭	
১২	ডো: মাহমুদ হোসেন	স্বাক্ষরকারী	০১৭৩০২০৬৩০৫	
১৬	ডো: মোঃ মাহমুদ হোসেন	স্বাক্ষরকারী	০১৭৩৭৫২৫৪৭১	
১৪	ডো: মাহমুদ হোসেন	স্বাক্ষরকারী	০১৭৩২২৭৪৬০২	
১৫	স্বাক্ষরকারী	স্বাক্ষরকারী	০১৬৭৩৭৭৭১৩৩	
১৬	ডো: মোঃ মাহমুদ হোসেন	UNDO পোস্টমাস্টার ৩৬০০, মাদারী	০১৮১৭৪৪৭১৬৫	
১৭	ডো: মাহমুদ হোসেন	২ নং, ৩ নং ব্লক	০১৩২৩৫৪২৩২৬	
১৮	স্বাক্ষরকারী	স্বাক্ষরকারী	০১৬৭৩৭৭৭১২২	
১৯	ডো: মাহমুদ হোসেন	স্বাক্ষরকারী	০১৮১৭১১০১৬১	
২০	ডো: মাহমুদ হোসেন	স্বাক্ষরকারী	০১৭১৪৭২৩০৭০	NORU



Along with the information provided above, DESCO and CEGIS conducted consultation in Kalachandpur area because of the area's sensitivity as a residential area. The detail along with NOC are provide below:

### 9.9 Stakeholder Consultations Meeting at Baridhara (Kalachandpur)

A stakeholder consultation has been conducted at the proposed Baridhara (Kalachadpur) substation site adjoining areas on 30 October 2022. The specific locations of consultations are: adjacent settlements, Baridhara Cosmopolitan Club Limited Office and Baridhara Society Office. The participants of the consultations were in a range of labour to local elites (Table 9.10). The stakeholders were engaged through the support of the DESCO and Baridhara Society. The EIA study team has appraised the proposed project activities to the participants. Moreover, the important stakeholders (e.g., residents/land owners/flat owners etc.) were communicated over phone and collected valued opinions of them about the project.

It is to be mentioned here that the Baridhara Society has issued a No Objection Certificate (NoC) in response to the letter from the Project Director of DESCO, which is attached.

The detailed findings of the consultations are given below:

**Table 9.11: Findings from Informal and Institutional Consultation**

Meetings conducted	Findings
Stakeholder: land and flat owners adjacent to the Proposed SS Site	<ul style="list-style-type: none"> <li>The people have shown their positive views towards the proposed project. Their exclusive demand is to ensure an uninterrupted electricity supply for 24 hours during the construction period as there is an existing switching station. Their concern over the switching station, because it is to be demolished before the construction of SS.</li> </ul>
Stakeholder: Chief Operating Officer, Baridhara Society	<ul style="list-style-type: none"> <li>Due to the Diplomatic Zone and high demand for electricity, during the construction period, ensure 24 hours electricity supply.</li> <li>DESCO should issue a formal letter to the President of Baridhara Society before starting the construction work.</li> <li>Baridhara Society set rules for contractors during any kind of construction works.</li> </ul>
Stakeholder: Secretary, Baridhara Cosmopolitan Club Limited	<ul style="list-style-type: none"> <li>Ensure uninterrupted electricity supply for avoiding disturbances to the activities of the club.</li> <li>Labor should not stay in the project site at night.</li> <li>Labor activities and movement should be monitored by the project-concerned persons.</li> <li>The club opening hour is 2 pm but the core gathering started from 5 pm to 12 am. So that construction work should be limited at day-time.</li> <li>The front road of the proposed site should be kept clean for maintaining smooth vehicle movement and aesthetic value.</li> <li>Maintain a regular monitoring system, so that all safety measures should be followed properly.</li> </ul>

**Photographs of Consultation Meetings at Baridhara (Kalachandpur)**



Consultation with the Chief Operating Officer of Baridhara Society



Consultation with the Secretary of Baridhara Cosmopolitan Club Limited



Consultation with the Flat Owner of House-102,  
Park Road

Consultation with the Land Owner of the House  
named Sitara, House-55, Park Road



Consultation with the Flat Owner of House-98, Park Road



Consultation with the Manager and the Stuffs of House-102, Park Road



Consultation with the Manager and the Stuffs of House-104, Park Road



## A List of Participants

The following participants from every walk of life attended the consultation meetings:

**Table 9.12: Consultations with the Stakeholder at Baridhara, Kalachandpur**

Sl. No	Name	Occupation/ Designation	Mobile No
1.	Abdullah Md. Jaki Hasan	Chief Operating Officer, Baridhara Society	01711430842
2.	Md. Muklesur Rahman	Manager, Accounts & Finance, Baridhara Society	01715537085
3.	Md. Mojibur Rahman	Security Inspector, Baridhara Society	01703655520
4.	Md. Yasir Arafat	Executive Engineer, DESCO	01755637519
5.	Imrul Anwar	Industrialist	01711530992
6.	Major Md. Akbar Hossain (Rtd.)	Secretary, Baridhara Cosmopolitan Club Limited	01715002139
7.	Sayed Masrud Ahmed	Business (Flat Owner)	01847313782
8.	Md. Sazzed	Land Owner	-
9.	Dr. Mosle Uddin	Flat Owner	01989732922
10.	Aftab Ahmed	Land Owner	01711528051
11.	Md. Imran Hosen	Manager	01827365080
12.	Abul Kalam	Driver	01719758096
13.	Abu Syed	Security	01725572693
14.	Murad Islam	Security	01316848234
15.	Md. Samsuddin	Driver	01765332566
16.	Abdus Salam	Driver	01736659945
17.	Md. Shohidul Islam	Manager	01714816477



ডেসকো এলাকায় বৈদ্যুতিক অবকাঠামোর সম্প্রসারণ ও শক্তিশালীকরণ সমীক্ষার  
পরিবেশগত ও সামাজিক প্রভাব নিরূপণ বিষয়ক  
মত বিনিময় সভায় অংশগ্রহণকারীদের তালিকা

স্থান- প্রস্তাবিত সাব-স্টেশন এলাকা, বারিধারা, কালাচাঁদপুর।

তারিখ- ৩০.১০.২০২২

সময়- ১১:০০

ক্রমিক নং	নাম	পেশা/পদবী	মোবাইল নং	স্বাক্ষর
01.	Md. Zaki Hasan	COO	01711430842	
02	Moh. Muklesur Rahman	Manager Accounts & Finance	01715597085	
03	Md. Mojibur Rahman	Security Inspector	01703655500	
04.	Md. Yasin Arafat	XEN, DESCO	01755637519	
05.	Bilkish Sultana	R. Associate, CEGIS	01721818829	
06.	Fazhana Sharmila	Junior Specialist CEGIS	01767049961	F. Sharmila
07.	Md. Shofiqul Islam	Junior Specialist CEGIS	01918897772	
08.	Imrul Anwar	Industrialist	01711530992	Mia
09.	Maj. Md. Akbar Hossain (Retd)	Secretary	01715002139	
10.	Syed. Masud Ahmed	Business Flat Owner	01847313782	
11.	Md. Saazad	Land Owner		
12.	Dr. Mostafiz Uddin	Flat Owner	01989732922	
13.	Aftab Ahmed	Land Owner	01711528051	

## NoC from Baridhara Society



Date: 26 October, 2022

Memo no 27.24.0000.078.014.001.22.52

The President  
Baridhara Society  
House -93 , Suhrawardy Avenue, Block-K  
Baridhara , Dhaka- 1212.

**Subject: Regarding Consultation with residents for the Construction of Substation at 59 park road, Baridhara.**

Dear Sir,

This is to inform you that, for the ensuring supply of stable and quality power to the Baridhara diplomatic zone, a project is taken "Dhaka Power System Expansion and strengthening project in Desco area funded by ADB. Under this project Kalachandpur switching station shall be converted to 33/11 Kv substation to meet the demand and ensure stable electricity in this area.

As an integral element of strengthening and upgrading our electricity transmission system, we shall install a new substation at the same site. The site boundaries will not change. The development will take place entirely within the same footprint.

First the existing station will be dismantled and demolished. Thereafter the new substation will be built within our existing property boundary. Once that has been finalized, cable laying to feed the substation will complete the Project.

All construction waste, including the demolition rubble, will be collected and transported offsite. Only modern construction equipment will be used throughout to keep construction noise to a minimum. At the same time dust emissions will be controlled by water spraying. The construction period will be kept as short as possible and we trust that its potential impacts to the residential area will be kept to a minimum.

Of course, we will be informed you, of all further developments, including particularly the timing of the construction work.

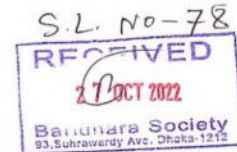
Therefore, you are requested to arrange a consultation meeting with your residents for complying the ADB's safeguards requirement that shall be needed for the project implementation.

Thanking you

  
Engr. Jyotish Chandra Roy  
Project Director  
Dhaka Power System Expansion and  
Strengthening Project in Desco area  
Email: dpsep@desco.org.bd

Copy To: For kind information

1. Managing Director, DESCO
2. Executive Director(Engineering), DESCO
3. CE (D&P)/P&D/Operation, DESCO
4. Superintending Engineer , Baridhara zone, DESCO
5. Executive Engineer (Baridhara S&D)/ DPD(DPSEP), DESCO.
6. Office Copy.





Working to improve the quality  
of Neighborhood living

## বারিধারা সোসাইটি Baridhara Society

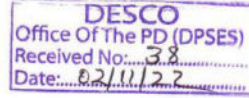
An organization of the residents of Baridhara

BS/admin/03/2022/456

October 29, 2022

Engr. Jyotish Chandra Roy  
Project Director  
Dhaka Power System Expansion and  
Strengthening Project in Desco area.  
22/B, Kobi Forrukh Sharoni, Nikunjo-02  
Khilkhet  
Dhaka.

DPD  
2/11/22



Subject: **Construction of Substation at 59, Park road Baridhara.**

Dear Sir,

Kindly refer to your letter ref no. 27.24.0000.078.014.001.22.52 dated October 26, 2022 regarding the above noted issue.

In this connection, we would like to inform you that Baridhara Society will extend you all necessary support for the completion of the project which you have mentioned in your letter under reference.

Thanking you

*A. Rauf*

Abdur Rauf  
President.

## Rules for Construction Activities in Baridhara Society Area

স্মারক নং- বিএস/সিকিউরিটি/০৫/২০২২/২৫৭

তারিখঃ ১১/০৯/২০২২ইং

বিষয়ঃ বাড়ী নির্মাণ কাজে সতর্কতামূলক ব্যবস্থা গ্রহণ প্রসঙ্গে।

জনাব,

আপনার ১১/০৯/২০২২ইং তারিখের পত্রের প্রেক্ষিতে নিম্নবর্ণিত শর্তসমূহ পালনে যত্নবান হওয়া সাপেক্ষে বারিধারা সোসাইটি আপনাকে প্রয়োজনীয় সহযোগিতা প্রদান করবেঃ

- আপনি আবশ্যই অবগত আছেন যে, বারিধারা দেশের একমাত্র কূটনৈতিক এলাকা হওয়ার কারণে ইহা দেশের সর্বোচ্চ নিরাপত্তা বেষ্টিত এলাকা। অত্র এলাকার অভ্যন্তরে নির্মাণ কাজ করার সময় আপনাকে পরিবেশ দূষণ, শব্দদূষণ ও নিরাপত্তা বিঘ্নকারী কোন কাজের দ্বারা প্রতিবেশীদের দৈনন্দিন জীবন যাত্রা যাহাতে বিঘ্নিত না হয় তৎপ্রতি অত্যন্ত যত্নবান হতে হবে। তাছাড়া রাস্তা এবং পয়োধঃ নিষ্কাশনের নর্দমা যাহাতে ক্ষতিগ্রস্ত না হয় সেদিকেও আপনাকে দৃষ্টি দিতে হবে;
- নির্মাণ কাজ চলাকালীন সময় নির্মিতব্য স্থাপনার সামনের সম্পূর্ণ রাস্তা ওয়াটার গ্রফ ত্রিপল দিয়ে ঢেকে রাখতে হবে।
- নির্মাণ কাজে নিয়োজিত শ্রমিকগণ যাহাতে নির্মাণ স্থানে উচ্চস্বরে গান গাওয়া, রেডিও বা ক্যাসেট বাজানো, টিভি দেখা এবং নিরাপত্তা বিঘ্নকারী কোন কর্মকাণ্ডে জড়িত না হয় তৎজন্যও আপনাকে সতর্কতামূলক ব্যবস্থা নিতে হবে। যে কোন মুহূর্তে পরিচয় নিশ্চিত হওয়ার জন্য সকল কর্মচারী এবং শ্রমিকগণ সর্বক্ষণ গলায় পরিচয়পত্র ঝুলিয়ে রাখবেন;
- নির্মাণ কাজে ব্যবহারের লক্ষ্যে সংগ্রহীত মালামাল রাস্তার উপর রাখা যাবে না। ইট, বালু, সিমেন্ট ইত্যাদি ট্রাক থেকে নামিয়ে সাময়িকভাবে রাস্তার পাশে স্টিলের পাত বিছিয়ে তার উপর সংরক্ষণ করবেন যাতে যানবাহন ও জনসাধারণের চলাচলে বিঘ্নের সৃষ্টি না হয়; বিশেষ করে ট্রাক থেকে রড নামানোর সময় পুরনো টায়ারের উপর রড নামানোর ব্যবস্থা করা যাহাতে কোনরূপ শব্দ না হয়।
- বিশেষ গুরুত্ব সহকারে নির্মিতব্য ভবনের চতুর্পাশে নেট অথবা ত্রিপল লাগাতে হবে যাহাতে কোন নির্মাণ সামগ্রী আপনার পার্শ্ববর্তী বা প্রতিবেশীর ভবনে না পরতে পারে।
- নির্মাণ এবং তৎসংশ্লিষ্ট কাজ সকাল ৯.০০ ঘটিকা থেকে বিকাল ৫.০০ ঘটিকার মধ্যে সম্পন্ন করতে হবে;
- মালামাল পরিবহনের সময় রাত ৯.০০ ঘটিকা থেকে রাত ১.০০ ঘটিকা পর্যন্ত এবং মালামাল নামানো বা উঠানোর সময় উচ্চমাত্রার শব্দে অত্র এলাকায় বসবাসকারীদের কোন প্রকার ব্যাঘাত বা সমস্যার সৃষ্টি না হয় সেদিকে বিশেষ লক্ষ্য রাখতে হবে;
- অব্যবহৃত নির্মাণ সামগ্রী রাস্তার পাশে যত্রতত্র ছড়িয়ে ছিটিয়ে রাখা যাবে না এবং তা নিজ দায়িত্বে অপসারণ করতে হবে।
- রাজধানী উন্নয়ন কর্তৃপক্ষের ইমারত নির্মাণ বিধিমালা এবং সংশ্লিষ্ট আইন-কানুন আপনাকে যথাযথ ভাবে অনুসরণ করে নির্মিতব্য স্থানে প্রদর্শনের ব্যবস্থা করতে হবে।
- বিস্তৃত নির্মাণ কালে অনাকাঙ্ক্ষিত দুর্ঘটনা এড়ানোর জন্য বর্ষাকালীন ৩ মাস অর্থাৎ জুন হতে আগস্ট মাস পর্যন্ত মাটিকাটা ও পাইলিং এর কাজ না করা ই বাঞ্ছনীয় এবং করতে হলে রাজউক এর তত্ত্বাবধানে যথাযথ নিরাপত্তা মূলক ব্যবস্থা গ্রহণ করতে হবে অন্যথায় পার্শ্ববর্তী ইমারতের কোন ক্ষতি হলে তার দায়দায়িত্ব আপনাদের উপর বর্তাবে। উচ্চ শব্দ যুক্ত দীর্ঘ দিনের পুরাতন মেশিন পাইলিং,ঢালাই বা মাটি খননের কাজে কোন অবস্থাতেই ব্যবহার করা যাবে না।
- উপরিউক্ত সতর্কতামূলক ব্যবস্থা গ্রহণে ব্যর্থ হলে প্রয়োজনীয় আইনানুগ ব্যবস্থা গ্রহণের জন্য যথোপযুক্ত কর্তৃপক্ষকে অবহিত করা হবে।

যে কোন প্রয়োজনে বারিধারা সোসাইটির কর্মকর্তা/ কর্মচারীর সাথে নিম্নুক্ত নাম্বারে যোগাযোগ করার জন্য অনুরোধ করা হলো :- সিকিউরিটি সুপারভাইজার: ০১৭১২-০২৭২৯০, ০১৮১৯১১৫৩৩৭, নিরাপত্তা পরিদর্শক: ০১৮১৯-০৬৮২৮৩।

**Summary Translation:** These conditions were issued as part of NOC and spelled out precautionary measures to be undertaken during construction which include: to be very careful that environmental degradation does not happen, people, sanitation/ drainage are less disturbed, to keep road in front of the construction site covered with tarpaulin during construction, disturbance to the community from construction workers should be controlled and they all will need to have identity cards that will

need to be kept always visible with them, construction materials cannot be stored on road, unloading of construction materials specially rods should be on old tyre that will reduce noise from this activity, under construction building will need to have apron (e.g., net, tarpaulin) surrounded to it so that construction materials do not fall on any nearby building or road, construction works should be carried out between 9.00 am to 5.00 pm, construction materials should be transported between 9.00 pm to 1.00 am and disturbance to the community will need to be avoided as much as possible, construction debris should not be stored on the road and they will need to be removed as early as possible, national regulations on building construction will need to be followed, to avoid incident during construction from piling and excavation three months/ rainy season ( June-August) should be avoided otherwise if any damage happen to any nearby building for such activities, project will need to take responsibility, old machineries in piling and other works that generate high noise should not be allowed, if all these measures are not undertaken, authority may be informed.

For any need Baridhara Society may be contacted- Mobile number of Security Supervisor: 01712027290 or 01819115337, Security Inspector: 01819068283.