Multilateral Investment Guarantee Agency
World Bank Group

ANNUAL MONITORING REPORT (AMR)

225 MW COMBINED CYCLE POWER PLANT (DUAL FUEL - 3RD UNIT), SIRAJGANJ, BANGLADESH

REPORTING PERIOD: (March, 2022) through (Feb, 2023)

AMR COMPLETION DATE: (01/03/2023)

I. INTRODUCTION

MEGA's Economics and Sustainability Group (MIGES)

The Economics and Sustainability Group (MIGES) oversee MIGA's country and project risk assessment; analysis of development impact of individual projects and MIGA's portfolio: evaluates and monitors project compliance with environmental, social and integrity policies.

Information provided in this AMR helps MIGES Environmental and Social specialists assess performance of projects on E&S. Follow up questions may be necessary to clarify information provided.

Preparation Instructions

MIGA's Contract of Guarantee requires North West Power Generation Limited to prepare a comprehensive Annual Monitoring Report (AMR) on the environmental and social (E&S)performance of its facilities and operations. This document comprises MIGA's preferred format for E&S performance reporting. The following template may be supplemented with annexes as appropriate to ensure all relevant information on project performance is reported.

The following points should assist you in completing this form. Please be descriptive in your responses and attach additional information/document(s) to supplement your answers as needed.

- Staff with specific responsibilities for environmental and social issues should complete this form.
- You may submit an electronic copy, fax or hard copy.
- The principal purpose of completing this form is to provide information on the following:
    1. Project Status/Update
    2. Summary of Key E&S Aspects during the Reporting Period
    3. New Development (Corporate)
    4. Action Plan Status and Update
    5. Deviations/non-compliances
    6. Development Effectiveness Indicators System (DEIS)
    7. Client's Feedback

Please note that some questions may not be applicable to your organization and also if it is early to assess issues/risks. So please "*NA*" or "*No-Information Possible*" to such questions.

Contact Information

Completed by	Mashuda Parvin		
Position in Organization:	Manager	Tel:	+880201777736469
Email:	parvin@nwpgcl.org.bd	Fax:	NA

II. PROJECT STATUS/ UPDATE

This section aims to update MIGA on the Project Status.

Select the current status of the project and provide a brief description of the developments in relation to the project over the reporting period. For example, has construction been started or completed, has new equipment been installed, has production capacity increased, or is the investment in new projects considered?

	Design (specify)		Construction		Expansion	√	Operation		Closure		Other

Is there any new investment under development? (Corporate and Investment Funds)

	YES	√	NO

Please provide details in section IV of this AMR report.

Please identify any other Interactional/Multilateral providing financing to the Project: NA

	World Bank (IBRD/IDA)		IFC		EBRD		EIB		ADB
	Kfw/DEG		FMO		OPIC		EDC		Other (specify)

Has the Project been subject to any existing or threatened complaint, order, directive, claim, citation or notice from any Authority? If yes, please provide details.

	YES	√	NO

Provide details

Has the Project been subject to or received any written communication from any Person/entity, in either case, concerning the Project's failure to comply with any matter covered by the Performance Standards?

	YES	√	NO

Provide details

If yes, please provide details.

Please attach any environmental and social reports prepared for other Interactional/ Multilateral Finance Intuitions/Export Credit Agencies or local regulatory authorities during the reporting period to this AMR report.

Not Applicable

III. SUMMERY OF KEY E&S ASPECTS

This section aims to identify the key E&S progress/activities/incidents during the Reporting period (include Summary of Key Findings for the Reporting Period e.g. non-compliances, significant incidents[1], social unrest, significant improvements/initiatives regarding E&S performance, etc.)

PSI: Assessment and Management of Environmental and social Risks and Impacts

Please provide details on the status of the following voluntary Management systems certification schemes at your facility, provide details below?

	Not being considered	Future consideration	Planning to implement	Currently implementing	Successfully implemented	Date of certification / recertification
ISO 900:2015					√	13h October, 2025
ISO 14001: 2015					√	13h October, 2025
ISO 45001:2018					√	13h October, 2025
Other	Environmental Clearance Certificate from Department of Environment (DoE)				√	Certificate Validity upto 08/10/2023 (*ANNEX-A*)

** Certificate has been attached in ANNEX-A*

Describe any changes in the organizational structure to manage environment, health and safety, labor and social aspects during the reporting period. Describe number of personnel in charge of E&S issues.

- NWPGCL has an EHS department staffed with 8 people;

Describe the level of environmental, social and health and safety training provided to staff. Provide annex with list of topics, hours of training and number of participants.

- ISO 14001:2015 Lead Auditor Training from BV
  - Mashiour Mahmud Khan, DM (EHS), SPS
  - Farhana Choudhury, SDE (Procurement)
- ISO 9001:2015,ISO 14001:2015, ISO 45001:2018 Internal Auditor Training from BV
  - Mashuda Parvin, Manager (EHS), Corporate Office
  - M. Ijaz Ahmad Saadi, SDE (P&D), Corporate Office
  - Mashiour Mahmud Khan, DM (EHS), SPS
  - Tasdidul Anwar, AM (Admin), Corporate Office
  - Md. Julkar Nain, AM (EHS), SPS

[1] *Examples of significant incidents follow: Chemical and/or hydrocarbon materials spills; fire, explosion or unplanned releases, including during transportation; ecological damage/destruction; local population impact, complaint or protest; failure of emissions or effluent treatment; legal/administrative notice of violation; penalties, fines, or increase in pollution charges; negative media attention; chance cultural finds; labor unrest or disputes; local community concerns.*

- S. M. Jahid Anwar, JAM (EHS), Corporate Office

- IFC Performance Standard Training by EQMS
  - Abdullah Al Quraishi, SE,
  - Mashuda Parvin, Manager (EHS), Corporate Office
  - Mashiour Mahmud Khan, DM (EHS), SPS
  - Tahira Jahan, DM, Admin, Corporate Office
- IFC Performance Standard Training by IFC
  - Mashuda Parvin, Manager (EHS), Corporate Office
- ADB Safeguard Policy Statement
  - Mashuda Parvin, Manager (EHS), Corporate Office

Are you aware of any events or significant incidents that may have caused damage; brought about injuries or fatalities or other health problems; attracted the attention of outside parties; affected project labor or adjacent populations; affected cultural property; or created liabilities for your company? (if yes, please provide details and attach any incident reports to this AMR report)

	YES	√	NO	Provide details

Describe any ongoing public consultation and disclosure, liaison with non-governmental organizations (NGOs, civil society and local communities or public relations efforts on environmental and social aspects.

- Stakeholder consultation meeting is ongoing. (Annex B)

Describe any ongoing social or community development initiatives, programs or dialogue.

- Community Development program is ongoing. (Annex C)

Briefly describe new initiatives implemented during the reporting period or additional managerial efforts on E&S aspects (e.g. Energy/water savings, sustainability report, waste minimization, etc)

- For energy saving initiatives (*Conversion of Tube lights into LED lights Program for Same Level Illumination as an when there is a possibilities*), we are replacing LED light with Tube light.
- Taking initiative for reducing Paper Consumption.

Briefly describe the number and type of comments and/or grievances received by the Company in relation to E&S issues? How many have been resolved and how many are pending? (Please attach a table with grievance redress registry)

- No grievance has been raised yet. (Scan copy of GRM book in attached in Annex D)

Describe activities completed under the community development plan. (Annex C)

- Renovation of toilets and washrooms in Jame Masjid beside Bangabandhu West Police Station near SPS.
- Humanitarian relief to poor people and food distribution to orphans near Sirajganj Power Station.

Life, Fire and Safety

Do your offices including regional and branch offices have valid Fire Safety permits for all buildings including those on lease issued by appropriate local authorities?

√	YES		NO

Provide details, Annex-E (Fire License)

When was the last fire safety inspection carried out by the appropriate local authority? What were the key findings of the inspection and have any outstanding issues been addressed?

Department of Civil Defense and Fire Service authority has visited the site and has issued Fire License (Annex-E)

Has there been any fire incident in the reporting period? If yes, please provide fire incident report including the details of these incidents, the root cause along with corrective actions taken by your organization.

	YES	√	NO

Provide details: Not Applicable

Please indicate if any first aid training was provided to staff during the reporting period.

√	YES		NO

Provide details in Annex-F

Please complete the following table for project operations to describe basic fire safety precautions.

Fire Safety Verification activities	Mandatory Frequency	Date(s) performed (mm/dd/yyyy)	Observed Deficiencies	Corrective Actions and Schedule For Implementation
Fire Drills	Minimum: three (3)/ year	27/01/2022, 23/02/2022, 24/03/2022, 18/04/2022, 24/05/2022, 27/07/2022, 27/08/2022, 26/09/2022, 24/10/2022, 17/11/2022 & 24/12/2022		Enhance Staff training
Inspect and certify fire detection & suppression electrical & mechanical systems	Minimum	As per maintenance schedule		
Inspect, refill/recharge portable fire	Minimum	Inspection is done monthly, Refilled on 30/10/2022 &	N/A	For inspection

extinguisher		06/11/2022 for U2 Inspection is done monthly, Refilled on 05/02/2022 &10/02/2022 for U3		

PS2: Labour and Working Condition

Have you changed your Human Resources (HR) policies, procedures or working conditions during the reporting period?

	YES	√	NO

Provide details

Provide the following information regarding your workforce:

NWPGCL

Site	Direct Employees	Female Direct Employees	employees terminated	employees hired	Contractor Employees
S-3 power plant	68	1	0	0	-

Has the Project been subject to any ongoing or, threatened, strikes, slowdowns or work stoppages by employees or any contractor or subcontractor? If yes, please provide details.

	YES	√	NO

Provide details

Occupational Health and Safety

Describe the main changes implemented in terms of Occupational Health and Safety (OHS) during the reporting period, e.g. identification of hazards, substitution of chemicals, new controls, etc.

Occupational Health and Safety Indicators

Report Total Numbers for each parameter	This reporting period		Reporting period – previous year	
	Direct Employees	Contractor employees	Direct Employees	Contractor employees
Total number of Workers			-	-
Total man-hours worked Annual			0	0
Total number of lost time occupational injuries	0		0	0
Total number of lost workdays due to injuries	0		0	0
Number of fatalities	0	0	0	0

Provide details for the non-fatal injuries during this reporting period

Company or Contractor employee	Total workdays lost	Description of injury	Cause of accident	Corrective measures to prevent reoccurrence
NWPGCL	0	0	0	0

Describe in detail fatalities and vehicle accidents, including corrective measures (provide copies of OHS investigation and respective corrective plan).None

Significant Incidents

Date of incident	Type of incident	Brief Description of incident	Fatalities (Y/N)	# of fatalities	Preventive measures taken after the incident

Please describe any year-over-trends in reported indicators, non-fatal injuries and significant incidents.

No fatal injuries

Worker Accommodation: The project is now in operational phase, so no worker accommodation.

Please attach recent inspection checklists

PS3: Resource Efficiency and Pollution Prevention

Provide the following environmental monitoring data for this reporting period. If you already have all the data requested available in another format, this can be submitted instead. Please provide a scaled facility map showing the precise locations of all monitoring points.

Ambient noise

Please describe any year-over-trends.NA

Complete the table below to provide MIGA with quantitative data on project Noise levels. Please provide Host country maximum levels in country units in the table below.

How many monitoring points for Noise Sources will project has? 15 Points

Monitoring Point Location:

1. In front of Administrative Building (Attachment 1)

Receptors		WBG Maximum Levels (WBG unit)		Project performance (WBG unit)		Host Country maximum levels (Host Country unit)		Project performance(Host Country unit)	
Residential; Institutional; Educational	Daytime 7:00-22:00	55	dBA	-	dBA	-	dBA	-	dBA
	Nighttime 22:00 -7:00	45	dBA	-	dBA	-	dBA	-	dBA
Industrial; Commercial	Daytime 7:00-22:00	70	dBA		dBA	-	dBA	-	dBA
	Nighttime 22:00 -7:00	70	dBA		dBA	-	dBA	-	dBA
Silent	Daytime 6:00-21:00	-		-		50	dBA	-	dBA
	Nighttime 21:00 -6:00	-		-		40	dBA	-	dBA
Residential	Daytime 6:00-21:00	-		-		55	dBA	-	dBA
	Nighttime 21:00 -6:00	-		-		45	dBA	-	dBA
Mixed	Daytime 6:00-21:00	-		-		60	dBA	-	dBA
	Nighttime 21:00 -6:00	-		-		50	dBA	-	dBA
Commercial	Daytime 6:00-21:00	-		-		70	dBA	-	dBA
	Nighttime 21:00 -6:00	-		-		60	dBA	-	dBA
Industrial	Daytime 6:00-21:00	-		-		75	dBA		dBA
	Nighttime 21:00 -6:00	-		-		70	dBA		dBA

**Blue blocks are national standard, ECR'1997 and subsequent amendment on 2006*

`Please complete a similar table for every location where Noise is monitored while specifying the location.

Air quality

Please provide details of NOx emissions and describe.

For Details, Please Check the **Attachment 1**

Liquid effluent discharges

Please describe any year-over-trends

Liquid effluent discharges (Industrial Waste Water Pool)

Date	pH	Temp (˚C)
15.01.2022	8.31	28.9
10.02.2022	8.31	28.0
16.03.2022	8.25	30.1
14.04.2022	8.21	29.5
15.05.2022	8.29	30.1
13.06.2022	8.36	30.6
15.07.2022	8.31	31.2
16.08.2022	8.31	30.0
14.09.2022	8.41	28.6
15.10.2022	8.45	30.0
10.11.2022	-	-
11.12.2022	-	-

Complete the table below to provide MIGA with quantitative data on Project wastewater and ambient Water quality levels. Please provide Host Country maximum levels in Country units in the table below.

How many monitoring points for wastewater? 1 Location

Monitoring point Location (Please See the Attachment 1)

Receptors	WBG Maximum Levels (WBG unit)		Project performance (WBG unit)		Host Country maximum levels (Host Country unit)*		Project performance (Host Country unit)	
pH	6-9	pH	-	pH	6-9	pH	-	-
BOD	30	mg/L	-	mg/L	50	mg/L	-	mg/L
COD	125	mg/L	-	mg/L	200	mg/L	-	-
Total Nitrogen	10	mg/L	-	mg/L	-	mg/L	-	-
Total Phosphorus	2	mg/L	-	mg/L	-	mg/L	-	-
Oil and grease	10	mg/L	-	mg/L	10	mg/L	-	-

Receptors	WBG Maximum Levels (WBG unit)		Project performance (WBG unit)		Host Country maximum levels (Host Country unit)*		Project performance (Host Country unit)	
Total residual chlorine	0.2	mg/L	-	mg/L	0.5	mg/L	-	-
Total Suspended Solids	50	mg/L	-	mg/L	150	mg/L	-	mg/L
Total Coliform bacteria	400	MPN/ 100 ml	-	MPN/ 100 ml	-	MPN/ 100 ml	-	-

Note:

MPN: Most Probable Number

** Standards for Waste from Industrial Units or Projects Waste [See Rule 13]/ Places for determination of standards (Inland Surface Water)*

Please complete a similar table for every location where wastewater is monitored while specifying the location NA

Energy and Water Management (Jan 2022- Dec 2022)

Utility Type	Units	Annual Consumption			Total	Remarks
		S 1	S 2	S 3		
Water Use	Cubic Meter		4009851		4009851	
Gas	SCM		55,187,865.39	205,940,376.67	261,128,242.00	
HSD	Liter		137,676,932.50		137,676,932.50	

Greenhouse Gas Emissions

Please describe year-over-trends.

Please See the Annex-G

Waste and Hazardous Materials

Please provide quantities and description of wastes and any year-over-trend. Please provide details of any waste recovery/recycling. Not Applicable.

If any of the EHS guidelines or local regulatory limits is exceeded and, if appropriate, describe the planned connective actions to prevent re-occurrence. Not Occurred

PS4: Community Health, Safety and Security

Using the table below list and briefly describe any new initiatives implemented in relation to Community Health and Safety during the reporting period. Include risk assessments, new infrastructure and equipment; hazardous materials and safety management, transportation and exposure to disease.

Mitigation Measure	Expected or actual date of Implementation	Planned future mitigation efforts?
Off Site Emergency Response Plan disclose	19th September, 2022	August, 2023

During the reporting period any emergency drills have been conducted with community participation? Are the communities aware of the emergency response plans? Please describe any changes in the Company's engagement with private/public security forces during the reporting period and any corresponding agreements.

The Sirajganj Power Hub (SPH) is KPI (key Point Installation) area. So, as per the Government rules, security guard was present to protect the SPH. As now there will be 4 power plants, so security guard number has been increased.

IV. ACTION PLAN STATUS AND UPDATE

Please update us in the current status of the action plan, define the dates when pending actions will be implemented. Please refer to the initial ESAP for the indicators and deliverables.

Task Title/ Description	Anticipated Completion Date	Indicator of Completion	Completion Date	Status as of DD/MM/YYYY	% Complete

All CP has been completed as per ESAP and CS activities are ongoing as per schedule.

Annex-H

V. DEVIATION/ NON-COMPLIANCES

The following are the identified deviation/non-compliances identified in reference to the following:

(i) Performance Standards;

(ii) Environmental and Social Action Plan;

(iii) Non- compliance with local environmental and Social regulations

(iv) Applicable EHS Guidelines

If there is any Non-compliances/deviations please record and provide additional information if necessary.

Please refer Environmental and Social Audit Report conduct by EQMS (January 2023).

(**Attachment -2**)

Areas of Interests	**Non-Compliances Identified**	**Corrective Action Plan**	**Status of Completion**	**Completion date**
Performance Standards (PS1-8)				
Environmental and Social Action Plan				
Local Environmental and Social regulations				
Applicable EHS Guidelines				

Please explain the cause and, if appropriate, describe the planned corrective actions to prevent re-occurrence.

VI. Development Effectiveness Indicators System (DEIS)

Please fill out the DEIS indicators (to be based on the Contract of Guarantee)

Annex- I

VII. CLIENTS FEEDBACK

Please check the box that best represent your evaluation of the support received from MIGA. On dealing with E&S aspects of the project, how diligently in your opinion has MIGA been able:

Areas of MIGA Assistance	No opinion	Excellent level of support	Above the expectations	As reasonably expected	Below what was expected	Comments
To help in the interpretation and applicability of MIGA's Performance Standards		√				
To provide guidance for the implementation of the Environmental and Social Action Plan(ESAP)		√				
To share the outcomes of MIGA supervision visits to the project and on agreeing in corrective actions		√				
To demonstrate flexibility and creativity to guide the Company's management of project's E&S issues		√				

.

ANNEX-A: ISO Certificate

&

Updated Environmental Clearance Certificate (ECC)-2021-22

BUREAU VERITAS

Bureau Veritas Certification

NORTH-WEST POWER GENERATION COMPANY LIMITED

NORTH-WEST POWER GENERATION COMPANY LIMITED

HEAD OFFICE: UNIQUE TRADE CENTER (LEVEL- 03 AND 04), 8 PANTHAPATH, KAWRANBAZAR, DHAKA-1215, BANGLADESH

This is a multi-site certificate, additional site(s) are listed on the next page(s)

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the Management System Standards detailed below.

Standards

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018

Scope of certification

CORPORATE MANAGEMENT OF POWER PLANTS, POWER GENERATION & SUPPLY TO THE NATIONAL GRID.

Original cycle start date for ISO 9001 & ISO 14001: **14 October 2016**

Original cycle start date for ISO 45001: **28 August 2018**

Expiry date of previous cycle: **13 October 2022**

Recertification Audit date: **07 August 2022**

Recertification cycle start date: **11 October 2022**

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **13 October 2025**

Certificate No. **IND.22.8649/IM/U** Version: **1** Issue date: **11 October 2022**

Signed on behalf of BVCH SAS UK Branch
Jagdheesh N. MANIAN
Director – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

UKAS MANAGEMENT SYSTEMS
0008

Certification body address: *5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom.*

Local office: *Bureau Veritas (Bangladesh) Pvt. Ltd.*
Symphony (5th Floor), Plot- SE(F)9, Road-142
South Avenue, Gulshan-1, Dhaka-1212, Bangladesh.

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.
To check this certificate validity please call **+ 88 (02) 8836765.**

Bureau Veritas Certification

NORTH-WEST POWER GENERATION COMPANY LIMITED

Standards

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018

Scope of certification

CORPORATE MANAGEMENT OF POWER PLANTS, POWER GENERATION & SUPPLY TO THE NATIONAL GRID.

SITE	ADDRESS	SCOPE
HEAD OFFICE	UNIQUE TRADE CENTER (LEVEL- 03 AND 04), 8 PANTHAPATH, KAWRANBAZAR, DHAKA-1215, BANGLADESH	CORPORATE MANAGEMENT OF POWER PLANTS
SIRAJGANJ POWER STATION (UNIT-1, UNIT-2, UNIT-3)	SOYDABAD, SIRAJGANJ, BANGLADESH	POWER GENERATION & SUPPLY TO THE NATIONAL GRID
KHULNA 225 MW COMBINED CYCLE POWER PLANT	GOALPARA, KHALISHPUR, KHULNA, BANGLADESH	POWER GENERATION & SUPPLY TO THE NATIONAL GRID
BHERAMARA 410 MW COMBINED CYCLE POWER PLANT	BHERAMARA, KUSHTIA, BANGLADESH	POWER GENERATION & SUPPLY TO THE NATIONAL GRID
MADHUMATI 100 MW HFO BASED POWER PLANT	MOLLAHAT, BAGERHAT, BANGLADESH	POWER GENERATION & SUPPLY TO THE NATIONAL GRID
SIRAJGANJ 7.6 MW GRID CONNECTED SOLAR PV POWER PLANT	SOYDABAD, SIRAJGANJ, BANGLADESH	POWER GENERATION & SUPPLY TO NORTHERN ELECTRICITY SUPPLY COMPANY

Certificate No. IND.22.8649/IM/U **Version: 1** Issue date: **11 October 2022**

Signed on behalf of BVCH SAS UK Branch
Jagdheesh N. MANIAN
Director – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

UKAS MANAGEMENT SYSTEMS
0008

Certification body address: *5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom.*

Local office: *Bureau Veritas (Bangladesh) Pvt. Ltd.*
Symphony (5th Floor), Plot- SE(F)9, Road-142
South Avenue, Gulshan-1, Dhaka-1212, Bangladesh.

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.
To check this certificate validity please call **+ 88 (02) 8836765.**

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
সিরাজগঞ্জ জেলা কার্যালয়
সপ্তর্ষি হাউস, হোল্ডিং নং-১৭৫, হোসেনপুর (দক্ষিণ)
সি. ও. রোড, সদর, সিরাজগঞ্জ-৬৭০০
www.doe.gov.bd

পরিবেশগত ছাড়পত্র নবায়ন

ছাড়পত্র নং: ২২-৮৭৩৯২

পরিবেশগত ব্যবস্থাপনা নিশ্চিতকরণ সাপেক্ষে সংযুক্ত শর্তে নিম্নবর্ণিত প্রতিষ্ঠান/প্রকল্পের অনুকূলে পরিবেশগত ছাড়পত্র নবায়ন প্রদান করা হলো :

প্রতিষ্ঠান/প্রকল্পের নাম	: সিরাজগঞ্জ ২২৫ মেগাওয়াট সিসিপিপ (ডুয়েল ফুয়েল ৩য় ইউনিট)
উদ্যোক্তার নাম	: ব্যবস্থাপনা পরিচালক
সনাক্তকরণ নং	: ১০১১০
প্রতিষ্ঠান/প্রকল্পের কার্যক্রম	: ২২৫ মেগাওয়াট বিদ্যুৎ উপাদন
প্রতিষ্ঠান/প্রকল্পের শ্রেণী	: Red
প্রতিষ্ঠান/প্রকল্পের ঠিকানা	: সয়দাবাদ, সদর, সিরাজগঞ্জ।
প্রদানের তারিখ	: ০৬ অক্টোবর ২০২২ খ্রি:
মেয়াদ উত্তীর্ণের তারিখ	: ০৮ অক্টোবর ২০২৩ খ্রি:

এ ছাড়পত্র সনদের সাথে পৃথকভাবে সংযুক্ত প্রদত্ত শর্তাবলী যথাযথভাবে প্রতিপালন করতে হবে,
অন্যথায় ছাড়পত্র বাতিল/ক্ষতিপূরণ আদায়সহ যে কোন আইনানুগ ব্যবস্থা গ্রহণ করা হবে।

বিঃদ্রঃ এটি একটি সিস্টেম জেনারেটেড ছাড়পত্র এবং এতে কোনোরূপ স্বাক্ষরের প্রয়োজন নেই।

পরিবেশগত ছাড়পত্র নবায়ন এর জন্য প্রযোজ্য শর্তাবলী:

১ . সয়দাবাদ, সদর, সিরাজগঞ্জ-এ অবস্থিত সিরাজগঞ্জ ২২৫ মেগাওয়াট সিসিপিপ (ডুয়েল ফুয়েল ৩য় ইউনিট) নামক ২২৫ মেগাওয়াট বিদ্যুৎ উপাদনকারী পাওয়ার প্লান্টের অনুকূলে ০৯/১০/১৮ খ্রি: তারিখে জারীকৃত ১৮-১১৮৬৯ সংখ্যক ছাড়পত্রের সকল শর্ত অপরিবর্তিত রেখে ছাড়পত্র আগামী ০৮ অক্টোবর ২০২৩ খ্রি:তারিখ পর্যন্ত নবায়ন করা হলো।

ANNEX-B: Stakeholder Consultation Program

Sirajganj 225 MW Combined Cycle Power Plant Dual Fuel – 2nd and 3rd Unit, Bangladesh

Operation Stage

Stakeholder Engagement Report

Prepared By

ELRC
871/1, Kazipara, Kafrul, Mirpur,
Dhaka-1216, Bangladesh

September 2022

EXECUTIVE SUMMARY

The sustainable power supply is an important precondition for the socio-economic development of Bangladesh. At present, about 92.2% (including off-Grid & Renewable) population of Bangladesh has access to electricity (World Bank, 2019) with an installed generation capacity of around 25,235 MW. Considering fuel gas & High-Speed Diesel (HSD) supply facilities in the area, the northwest Power Generation Company Limited (NWPGCL), an enterprise of the Ministry of Power, Energy and Mineral Resources (MoPEMR) in line with the Government's Power Sector Master Plan of 2016, has planned to enhance the electricity generation by constructing a new Combined Cycle Power Plant (CCPP), 3rd and 2nd unit at Soydabad, Sirajganj. The North-West Power Generation Company Limited (NWPGCL), an enterprise of the Bangladesh Power Development Board (BPDB) has taken the initiative to enhance the power generation capacity of Bangladesh to address the growing electricity demand. This initiative will involve the operation of a Sirajganj 225 MW Combined Cycle Power Plant in Soydabad, Sirajganj.

This stakeholder engagement report deals with the impacted stakeholder engagement in the project as per baseline study, EIA guide of the GOB. This report will be concluded by considering the real-time PCM, FGD, and KII during the operation period on the project site. Considering the importance of stakeholders and their engagements, the NWPGCL has identified, mapped its relevant stakeholders, and developed an engagement plan to approach the stakeholders throughout the project life cycle. According to the Stakeholder Engagement Plan (SEP), the NWPGCL establishes a sustainable relationship along with its stakeholders. This report has been prepared on the stakeholder engagement activities guided by the established SEP of the NWPGCL. The Area of Influence (AoI) is determined by considering the impacts related to transportation activities, the hiring and use of laborers during construction and operation of the Project, noise generated during operation of the Project, land use, dust generation, and air quality impacts related to operational activities.

There are several trainings, stakeholder meetings, FGDs, and KIIs that have been conducted with different stakeholder parties to understand the present situation of the project activity of the surrounding peoples, existing environmental settings as well as the institutional system. Most of the primary, secondary and other stakeholders presented in the interview session with NWPGCL personnel for assessing the feedback from the local people about the project activity.

All of the impacted stakeholders are considered for this interview session including the local healthcare unit, family welfare, agriculture office, fisheries department, fishing community, agricultural community, and local people. All of them are well responded and well behaved. All of the stakeholders are commented about the operational activity as positive view and they demand just to continue the activities with considering the adverse impacts. The proponent is recommended to properly maintain the stakeholder engagement following the stakeholder engagement plan regularly.

TABLE OF CONTENTS

EXECUTIVE SUMMARY 2
TABLE OF CONTENTS 3
LIST OF TABLES 5
LIST OF FIGURES 5
LIST OF PHOTOGRAPHS 5
1 CHAPTER 1: INTRODUCTION 6
1.1 Study Background 6
1.2 Stakeholder Engagement 6
1.3 Objectives 7
1.4 Methodology for Consultation 7
2 CHAPTER 2: PROJECT DESCRIPTION 8
2.1 Project Location 8
2.2 Importance of the Project 9
2.3 Potential Major Benefits 9
2.4 Area of Influence 10
3 CHAPTER 3: LEGAL REQUIREMENTS 11
3.1 Asian Development Bank (ADB) Safeguard Policy Statement (2009) 11
3.2 The IFC Performance Standards (IFC PS:1 Stakeholder Engagement) 12
4 CHAPTER 4: CONSULTATION 13
4.1 Fire Service and Civil Defense 13
4.1.1 Consultation Details 13
4.1.2 Discussions 13
4.1.3 Photographs 14
4.1.4 Recommendations 14
4.2 Ministry of Health and Family Welfare 14
4.2.1 Consultation Details 14
4.2.2 Discussions 14
4.2.3 Photographs 14
4.2.4 Recommendations 15
4.3 Department of Agriculture 15
4.3.1 Consultation Details 15
4.3.2 Discussions 15

4.3.3 Photographs 16
4.3.4 Recommendations 16
4.4 Department of Fisheries 16
4.4.1 Consultation Details 16
4.4.2 Discussions 16
4.4.3 Photographs 17
4.4.4 Recommendations 17
4.5 Department of Public Health Engineering 17
4.5.1 Details of Consultation 17
4.5.2 Discussion 17
4.5.3 Photographs 18
4.5.4 Recommendations 18
4.6 Fishing Community 18
4.6.1 Consultation Details 18
4.6.2 Participants Details 18
4.6.3 Discussions 19
4.6.4 Photographs 19
4.6.5 Recommendations 19
4.7 Agricultural Farmers 19
4.7.1 Consultation Details 19
4.7.2 Participants Details 20
4.7.3 Discussions 20
4.7.4 Photographs 20
4.7.5 Recommendations 21
4.8 Community Consultation 21
4.8.1 Consultation Details 21
4.8.2 Photographs 21
4.9 EMF Awareness Training 22
4.9.1 Training Details 23
4.9.2 Photographs 23
5 CHAPTER 5: CONCLUSION 24
ANNEXURE I

Annex 1: PCM Presentation Slides.....II
Annex 2: PCM Attendance Sheets.....X
Annex 3: EMF Awareness Training Presentation Slides.....XIV
Annex 4: EMF Awareness Training Attendance Sheets.....XIX

LIST OF TABLES

Table 2-1: Power Generation Enhancement Plan..... 9

LIST OF FIGURES

Figure 2-1: Projection of Final Energy Consumption (Energy Efficiency Scenario)..... 9

LIST OF PHOTOGRAPHS

Photo 4-1: Consultation with Fire Safety Personnel at Project Sub-Station..... 14
Photo 4-2: Consultation with Upazilla Medical Officer at Upazila Health and Family Welfare Office..... 15
Photo 4-3: Consultation with SAAO, Sirajganj Sadar, Sirajganj..... 16
Photo 4-4: Consultation with Upazilla Fisheries Officer, Sirajganj Sadar, Sirajganj..... 17
Photo 4-5: Consultation with Assistant Engineer, DPHE, Sirajganj Sadar, Sirajganj..... 18
Photo 4-6: Focus Group Discussion (FGD) with Fishing Community..... 19
Photo 4-7: Focus Group Discussion (FGD) with Agricultural Farmers Community..... 20
Photo 4-8: Public Consultation Meeting (PCM) with Local Community..... 22
Photo 4-9: EMF Awareness Training with NWPGCL..... 23

1 CHAPTER 1: INTRODUCTION

1.1 Study Background

Power is the main driving force of current progress and also the foundation of the growth rate. The vision of the Bangladesh Government is to give access to moderate and reliable power to all by the year 2021 and following this present government's goal is to guarantee continuous and quality power supply for all by 2021 through a change in generation, transmission, and distribution methods. The Government of Bangladesh has announced the new policy, "Vision 2041" targeting Bangladesh to be a developed country by 2041. With the consistency of economic development, a secure power system would be necessary. The government has further expanded its vision focusing on the coming years up to 2041 and arranged the Power System Master Plan 2016 (PSMP). This plan expresses that in 2020, 2030, and 2041, the power demand would be 12545 MW, 27434 MW, and 52034 MW where the power supply would be 12949 MW, 30178 MW, and 57238 MW. Based on the future economic growth, fuel, demand, and supply, international cooperation, a new Power System Master Plan 2016 have been finalized Power System Master Plan (PSMP) 2016, aims at assisting Bangladesh in formulating extensive energy and power development plan up to the year 2041, covering energy balance, power balance, and tariff strategies. As per PSMP 2016, achieving middle to long term development issues and risks and formulate a comprehensive and result-oriented aid strategy for the energy sector by examining effective approaches for each issue. At present, about 92.2% (including off-Grid & Renewable) population of Bangladesh has access to electricity (World Bank, 2019) with an installed generation capacity of around 25,235 MW. Considering fuel gas & High-Speed Diesel (HSD) supply facilities in the area, the northwest Power Generation Company Limited (NWPGCL), an enterprise of the Ministry of Power, Energy and Mineral Resources (MoPEMR) in line with the Government's Power Sector Master Plan of 2016, has planned to enhance the electricity generation by constructing a new Combined Cycle Power Plant (CCPP), 2nd and 3rd unit at Soydabad, Sirajganj.

As per the definition of the Environment Conservation Rules (ECR), 1997 of Bangladesh, the proposed project falls under the "Red" Category Project. Hence, for the fulfillment of the condition required under this Category, an Environmental Impact Assessment (EIA) study has been carried out to assess the impacts of this Project, propose mitigation measures and its implementation plan (Environmental Management Plan). NWPGCL has engaged Engineers Associates Limited (EAL), an experienced firm for such activities, for the preparation of EIA for the project following the Terms of Reference. Engineers Associates Limited (EAL) has conducted an EIA study and submitted the EIA report to DoE on May 11, 2014, for DoE approval. Finally, DoE has issued a Letter for Approval of EIA on July 16, 2014. NWPGCL is seeking financial assistance from Standard Chartered Bank (hereinafter referred to as SCB or Bank or the Lenders). AECOM India has been engaged by NWPGCL as independent auditors for carrying out the Environmental and Social Due Diligence of the project. The due diligence report is to be prepared following the International Finance Corporations Sustainability Framework 2012 (IFC) and its Performance Standards (PS) on Social and Environmental Sustainability to assess the compliance of the Project and the ability of the Project to comply with the requirements of the suggested reference framework.

1.2 Stakeholder Engagement

Stakeholder engagement is the process by which an organization involves people who may be affected by the decisions it makes or can influence the implementation of its decisions. More specifically,

stakeholder engagement is a more inclusive and continuous process between a company and those potentially impacted that encompasses a range of activities and approaches and spans the entire life of a project. Additionally, Engagement is not an end in itself, but a means to help build better relationships with the societies in which we operate, ultimately resulting in improved business planning and performance.

Considering the importance of Stakeholders and their engagements, NWPGCL has identified, mapped its relevant stakeholders, and developed an engagement plan to approach the stakeholders throughout the project life cycle. According to this Stakeholder Engagement Plan (SEP), NWPGCL establishes a sustainable relationship along with its stakeholders. This report has been prepared on the stakeholder engagement activities for 2018-2019 as guided by the established SEP of NWPGCL.

1.3 Objectives

The overall objective of the consultation process will disseminate project information and incorporate the views of stakeholders in the design of the environmental and social mitigation measures, management plan, and monitoring plan. The specific objectives of the consultation process are to:

a. Local people comments and suggestions on the project activity;
b. Improve project design and thereby, minimize conflicts and delays in implementation.
c. Increase long term project sustainability and ownership.
d. Reduce problems of institutional coordination; and
e. Consult stakeholders to gather the information needed to complete the assessment

1.4 Methodology for Consultation

The approach undertaken for information disclosure and consultation involved the following key processes.

a. Mapping and identification of key stakeholders such as primary (direct project influence) and secondary (indirect project influence) stakeholders according to SEP;
b. Undertaking expert consultations, interviews, and FGD's with the respective stakeholders;
c. Assessing the influence and impact of the project on these stakeholder groups;
d. Summarizing of key findings and observations from the consultations; and
e. Preparing a future stakeholder engagement strategy consultation plan for a more detailed assessment at a microscopic level taking into account the various project lifecycle phases and their implications on the stakeholder.

2 CHAPTER 2: PROJECT DESCRIPTION

2.1 Project Location

The project site is located at about 15 km south-east of Sirajganj town, about 130 km north-west of Dhaka, and 1.8 km south-west from the western end of Bangabandhu bridge. Subsequently, NWPGCL has applied for getting the land of 17.5 acres (Approximately 10 acres for Sirajganj 225 MW 2nd Unit and approximately 7.5 acres for Sirajganj 225 MW 3rd Unit) leased from BPDB as per the decision of GOB to establish the said power plants in the Sirajganj Generation Hub. The major components include a 150 MW gas turbo generator (GTG) with a bypass stack of 60 meters high, one horizontal type Heat Recovering Steam Generator (HRSG) with the main stack of 60 meters high for outdoor installation, and a heavy-duty condensing type Steam Turbo Generator (STG) for indoor installation in the configuration of 1:1:1, feedwater pumps, condensate extraction pumps, cooling towers, 230 KV plant sub-station, transformers, Gas Regulating Metering Station (RMS), Oil Separator Unit, Water Treatment Plant (WTP), Administration building, workshop, warehouse, guardhouses, internal roads, etc.

The project is a dual fuel-based Combined Cycle Power Plant (CCPP), which will be operated predominantly by Natural Gas (NG) but has also the provision of High-Speed Diesel (HSD) in case of emergency and non-availability of NG. The natural gas required for the Plant is 35 MMCFD and the Pashchimanchal Gas Company Limited (PGCL) will supply natural gas at a pressure of 500 psi through a 1.7 Km long and 16-inch diameter pipeline from its existing valve station to the PGCL RMS, which is to be constructed. From this RMS a 12-inch line will be extended up to the Power Plant's RMS (to be constructed inside the Plant's boundary) at a pressure of 350 psi. Liquid fuel (HSD) requirement is estimated to be about 920 m^3/day at 80% PF. The oil will be supplied by Bangladesh Petroleum Corporation (BPC) from its Daulathpur and/or Khulna depot by railway wagons to Bangabandhu Bridge (Satu) West Railway Station and stored in the HSD tanks in the Plant.

The hot flue gas that is produced in the combustor will then be directed to the GTG, where it expands, loses pressure and temperature, and causes the GTG to spin and generate about 150 MW of power. The hot exhaust gas of GTG will pass through the HRSG and main stack to the atmosphere. The HRSG in turn will generate High Pressure (HP), Intermediate Pressure (IP), and Low Pressure (LP) steam that will be directed to the STG, which would, in turn, generate 75 MW of power, thus totaling the Plant output to 225 MW. The generated power of GTG and STG will be stepped up to grid voltage level (11/230 KV) by station transformers (240 MVA for GT and 120 MVA for ST) and feed to the national grid, via underground cables (Sirajganj sub-station), through the Plant sub-station.

Total water demand for Units 1-3 is 1400 m^3/h, with the third Unit requiring 400 m^3/h as per the feasibility Report. There is a provision for the fourth Unit to be constructed beside the third Unit. These units altogether will raise the water requirement to 2550 m^3/h. Water requirement for Plant construction and operation can be fulfilled from groundwater and it was reported from the feasibility study that the maximum allowable withdrawal of groundwater is 3,200 m^3/h without causing the conspicuous problem in the groundwater table of the SPS area (EAL, 2014 and SDCPL, 2015). The major air pollutants that are produced from the power generating units due to the burning of fossil fuels are SOx, NOx, CO_2, CO, and SPM. Major sources of contaminated water from the proposed power plant are blowdowns of HRSG, cooling tower, backwash and rejects of the water treatment plant, oily water from turbine floor and transformer area, etc.

2.2 Importance of the Project

At present total installed electricity generation capacity is 25,235 MW with 92.2% of the population of the country has the access to electricity. The Ministry of Power, Energy and Mineral Resources (MoPEMR) has forecasted that the increase in power demand in response to the desired economic growth of the country, will reach 34,000 MW by 2040. The Power System Master Plan (PSMP) also projected some scenarios of power demand concerning different GDP growth rates. All these variable projections are depicted in Figure 2-1.

To address the conflict between increasing power demand and prevailing shortage, BPDB has adopted a power generation enhancement plan till 2021 which is in line with the PSMP, 2016. The summary of the plan to increase power generation is depicted in Table 2-1. The plan includes different initiatives to generate additional electricity by diversifying fuel, rehabilitating age-old power plants, and importing electricity from neighboring countries. The Sirajganj 225 MW CCPP Project is one of such steps for contributing to meet the growing demand.

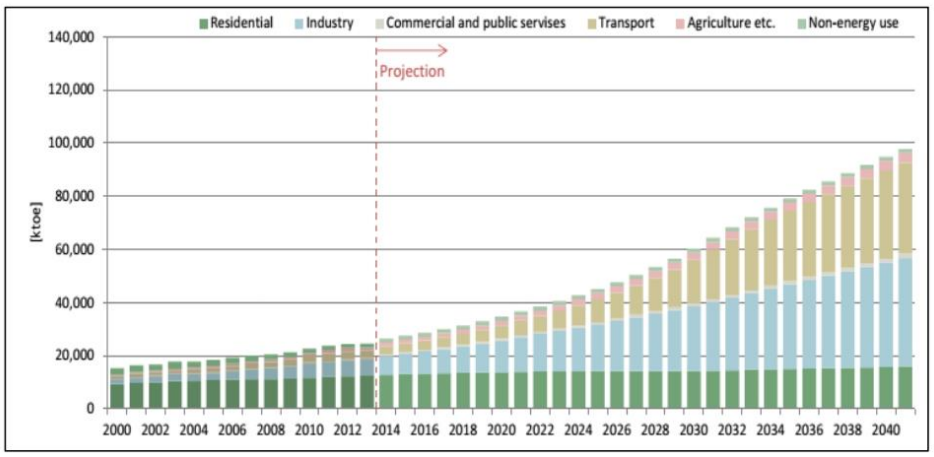


Figure 2-1: Projection of Final Energy Consumption (Energy Efficiency Scenario)[1]

Table 2-1: Power Generation Enhancement Plan2

Sl. No.	Type	2015	2016	2017	2018	2019	2020	2021	Total
1.	Public (MW)	1,218	770	2,202	846	2,070	1,000	2,400	10,506
2.	Private (MW)	1,130	748	799	1,270	568	1,287	1,912	7,670
3.	Import (MW)	---		---	---	---	---	---	---
4.	Total	2,348	1,518	3,001	2,116	2,634	2,247	4,312	18,176

2.3 Potential Major Benefits

The power Plant will trigger regional development, creation of employment opportunities, and thereafter improvement of livelihood. The power plant may also bring social and economic development to the

[1] **Source: PSMP 2016**

[2] **Source: Power Sector Emergency Information, System Planning Department, BPDB, February 16, 2015**

region through infrastructural improvement, reducing energy shortfall, rural electrification, and industrial (power loom) development. The communication network will also be improved significantly and will increase livelihood opportunities during the construction period. Finally, the project would improve Environmental Performance by providing a means of effluent treatment of existing units; thus, significantly reducing the discharging of effluents in the canal around the site connected to the Jamuna River.

2.4 Area of Influence

The Area of Influence (AoI) is determined by considering the impacts related to transportation activities, the hiring and use of laborers during operation of the Project, noise generated during operation of the Project, land use, dust generation, and air quality impacts related to operational activities.

The nearest settlements to the Project Site will be considered as the first impact zone. In other words, locals in the first impact zone may experience direct impacts from the Project. Operational works will cause dust and noise emission, in which nearest Ponchosona village area (distanced 0.2 km to the Project Site) and Boroshimul Village (distanced 1 km to the Project Site) may experience dust and noise impacts during the operation phase of the Project. Therefore, the first impact zone includes the Ponchosona village and Boroshimul village which are within a 2 km radius around the Project Site. The second impact zone includes the other residential area, which is within a 5 km radius of the Project site. Inhabitants within the second impact zone may experience indirect Project impacts such as direct and indirect job opportunities, providing goods and services to the Project and Project employees. Inhabitants in the first impact zone are more likely to experience impacts related to community health and safety than inhabitants located in the second impact zone. Further information on these impacts can be found in the EIA report.

Due to operational activity, local people may face dust or noise pollution and also other environmental hazards. For assessing the people's present status due to project activity this interview was conducted. Considering the primary stakeholders near the project area, a day-long interview has been conducted to ensure their comments on the project activity. According to the baseline study, this interview has been conducted on the premises of the project. As stated, the allocation of the Project Site causes no private land acquisition. Therefore, there will be no need to take mitigation measures for economic or physical displacement for the allocated site.

3 CHAPTER 3: LEGAL REQUIREMENTS

This section outlines the regulatory framework for the Project's stakeholder engagement activities, namely-

3.1 Asian Development Bank (ADB) Safeguard Policy Statement (2009)

ADB's Safeguard Policy Statement requires ADB's borrowers/clients to carry out meaningful consultation processes in all projects financed by ADB.

a. For policy application, ADB will require borrowers/clients to engage with communities, groups, or people affected by proposed projects, and with civil society through information disclosure, consultation, and informed participation in a manner commensurate with the risks to and impacts on affected communities. For projects with significant adverse environmental, involuntary resettlement, or Indigenous Peoples impacts, ADB project teams will participate in consultation activities to understand the concerns of affected people and ensure that such concerns are addressed in project design and safeguard plans.
b. The ADB's Safeguard Policy Statement emphasizes requirements for establishing a grievance mechanism that receives and facilitates the resolution of affected people's concerns, complaints, and grievances about a Project's environmental and social performance. The grievance mechanism should be scaled to Project risks and adverse impacts, address affected people's concerns and complaints promptly. It should also ensure the process is understandable and transparent, gender-responsive, culturally appropriate, and readily accessible to all segments of affected people. It should also not impede access to judicial or administrative remedies. The grievance mechanism should be delivered to the affected people inappropriate manner. ADB. 2011. Public Communications Policy. The policy promotes greater transparency and accountability by enabling ADB's stakeholders—especially people affected by development activities—to better participate in the decisions that affect them. ADB-assisted activities are expected to consider the right of people to seek, receive, and impart information and ideas, and consider feedback from its stakeholders, including affected people. Information shall be given to affected people early enough for them to provide meaningful inputs into project design and implementation.
c. ADB's Policy on Cooperation with Civil Society Organizations (1998). The policy recognizes that NGOs can contribute valuable advice on the design of projects and can participate directly in implementation. To support effective cooperation with NGOs, the policy indicates that as appropriate, mechanisms to expand and strengthen interaction with NGOs in loan and technical assistance activities will be identified and existing mechanisms for consultation and dialogue with NGOs will be pursued and strengthened. Under this policy and the 2009 SPS, the Borrower is expected to carry out meaningful consultation with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation.
d. Stakeholder Engagement requires clients to demonstrate effective Stakeholder Engagement as an ongoing process in a structured and culturally appropriate manner with Affected Communities and, where relevant, Other Stakeholders.

3.2 The IFC Performance Standards (IFC PS:1 Stakeholder Engagement)

a. **Stakeholder Engagement:** According to IFC PS-1 Stakeholder engagement is an ongoing process that may involve, in varying degrees, the following elements: stakeholder analysis and planning, disclosure and dissemination of information, consultation and participation, grievance mechanism, and ongoing reporting to Affected Communities. The nature, frequency, and level of effort of stakeholder engagement may vary considerably and will be commensurate with the project's risks and adverse impacts, and the project's phase of development. Stakeholder Analysis and Engagement Planning: Clients should identify the range of stakeholders that may be interested in their actions and consider how external communications might facilitate a dialog with all stakeholders. The client will develop and implement a Stakeholder Engagement Plan that is scaled to the project risks and impacts and development stage, and be tailored to the characteristics and interests of the Affected Communities.

b. **Disclosure of Information:** Disclosure of relevant project information helps Affected Communities and other stakeholders understand the risks, impacts, and opportunities of the project. The client will provide Affected Communities with access to relevant information.

c. **Consultation:** When Affected Communities are subject to identified risks and adverse impacts from a project, the client will undertake a process of consultation in a manner that provides the Affected Communities with opportunities to express their views on project risks, impacts and mitigation measures, and allows the client to consider and respond to them. The extent and degree of engagement required by the consultation process should be commensurate with the project's risks and adverse impacts and with the concerns raised by the Affected Communities. Informed Consultation and Participation: For projects with potentially significant adverse impacts on Affected Communities, the client will conduct an Informed Consultation and Participation (ICP) process that will build upon the steps outlined above in Consultation and will result in the Affected Communities' informed participation.

d. **External Communications and Grievance Mechanisms:** Clients will implement and maintain a procedure for external communications that includes methods to (i) receive and register external communications from the public; (ii) screen and assess the issues raised and determine how to address them; (iii) provide, track, and document responses, if any; and (iv) adjust the management program, as appropriate. In addition, clients are encouraged to make publicly available periodic reports on their environmental and social sustainability. Where there are Affected Communities, the client will establish a grievance mechanism to receive and facilitate resolution of Affected Communities' concerns and grievances about the client's environmental and social performance.

4 CHAPTER 4: CONSULTATION

For the SEP, a stakeholder is defined as any individual, organization, or group which is potentially affected by the Project or which has an interest in the Project and its impacts. The objective of stakeholder identification is to establish which stakeholders may be directly or indirectly affected – either positively or negatively - ("affected parties"), or have an interest in the Project ("other interested parties"). Particular effort must be made to identify any disadvantaged and vulnerable stakeholders who may be differentially or disproportionately affected by the Project or who may have difficulty participating in the engagement and development processes. Stakeholder identification is also an ongoing process and will require regular review and update.

There are several stakeholder meetings, FGDs, and KII that have been conducted with different stakeholder parties to understand the present situation of the project activity of the surrounding peoples, existing environmental settings as well as the institutional system. Most of the primary, secondary and other stakeholders presented in the interview session with NWPGCL representative for assessing the feedback from the local people about the project activity. The agenda and discussed issues are presented in the following section.

4.1 Fire Service and Civil Defense

4.1.1 Consultation Details

Name of the Stakeholder (Institution/Community)	Fire Service and Civil Defence Sub-Station, Sirajganj Sadar, Sirajganj
Consulted Person	Md. Yakub Ali
Designation/Position	Station In-Charge
Cell No.	01313425824
Consulted By	Syed Galib Shah
Designation/Position	Consultant, ELRC
Date	19 July 2022
Time	10:35 AM

4.1.2 Discussions

Concerned Issues	**Discussions**
Involvement with the Emergency Preparedness Programs Taken by the NWPGCL	Every month (1st week of the month and last week of the month)
Frequency of Programs Taken	Two times per month per unit
Fire Incidents Reported	Not yet occurred
Remarks/Recommendation	Need to be more aware and time-oriented

4.1.3 Photographs

Photo 4-1: Consultation with Fire Safety Personnel at Project Sub-Station

4.1.4 Recommendations

Fire drilling/ fire safety training needs to be conducted periodically and the NWPGCL should take necessary steps for fire training of its workers and staff regularly. Fire drilling and demo should be taken for any kind of fire hazards.

4.2 Ministry of Health and Family Welfare

4.2.1 Consultation Details

Name of the Stakeholder (Institution/Community)	Upazila Health and Family Welfare Office, Sirajganj Sadar, Sirajganj
Consulted Person	Dr. Iftekhar Ahmed Toslim
Designation/Position	Upazila Health and Family Welfare Officer
Cell No.	01919848050
Consulted By	Md. Abdur Rab
Designation/Position	Consultant, ELRC
Date	19 July 2022
Time	11:13 AM

4.2.2 Discussions

Concerned Issues	Discussions
Available Health Facilities	Primary Treatment, Maternal Consultation, Communicable and Non-communicable Disease Related Awareness
Common Exposure Diseases (Last One Year)	No Records Available
Health Problems Created from The Project Activities (If Any)	No
Health Improvement Initiatives Taken by NWPGCL	No Initiative taken
Remarks	Denied to take pictures

4.2.3 Photographs

Denied Taking Photographs

Photo 4-2: Consultation with Upazilla Medical Officer at Upazila Health and Family Welfare Office

4.2.4 Recommendations

Next time health related information should be taken from the nearest Union Health Complex or Upazilla Health Complex.

4.3 Department of Agriculture

4.3.1 Consultation Details

Name of the Stakeholder (Institution/Community)	Bangladesh Agricultural Development Corporation (BADC), Sirajganj Sadar, Sirajganj
Consulted Person	Md. Alauddin Bhuyia
Designation/Position	Sub-Assistant Agriculture Officer
Cell No.	01714801918
Consulted By	Syed Galib Shah
Designation/Position	Consultant, ELRC
Date	19 July 2022
Time	02:15 PM

4.3.2 Discussions

Concerned Issues	Discussions
Agricultural Practices	Two crops field maximum and some of them three crops
Irrigation Practices	Shallow tube well, River water, and Deep tube well (rare)
Irrigation Cost	Rice production cost per bigha (33 decimal): About 10000-12000 BDT
Production Rate	Not recorded
Annual Revenue	Not recorded
Availability of Agricultural Labor	Not available all the season
Labor Wages	Vary season to season 400-700 BDT
Agricultural Problems Created from The Project Activities (Yes/No)	No issues related to agriculture has been occurred till the reporting period.
Remarks	Need Deep tube-well installation for proper irrigation

4.3.3 Photographs

Photo 4-3: Consultation with SAAO, Sirajganj Sadar, Sirajganj

4.3.4 Recommendations

Deep tube-well installation may help to increase agricultural productivity. Try not to acquire agricultural land if the project is extended or for other purposes.

4.4 Department of Fisheries

4.4.1 Consultation Details

Name of the Stakeholder (Institution/Community)	Upazilla Fisheries Office, Sirajganj Sadar, Sirajganj
Consulted Person	Md. Amzad Hossain
Designation/Position	Asst. Fisheries Officer
Cell No.	01716732855
Consulted By	Syed Galib Shah
Designation/Position	Consultant, ELRC
Date	20 July 2022
Time	10:25 AM

4.4.2 Discussions

Concerned Issues	Discussions
Fishing Scenario and Practices Around the Project Site	Aquaculture, open water fishing, home pond. Generally used current net, ber net, wheel, dragnet, etc. Fishes: Chanda, Chela, Pangas, Chital, Rui, Katla, Bhangan, Kalbaosh, Punti, Baila Cavasi Tengra, Tilapia, Phasa, Pholi, Horina Chingri, Darkina, Parshi, Golda Chingri, Mrigal, Koi, Kolisha, Mola, Gazar/Gojar, Tara Baim, Tengra, Veda, Shal Baim, Shol, Taki, Madhu pabda, Magur
Yearly Yield	8439 metric ton total (Upazilla wise)
Total Fishing Activities (Around the Project Site)	Not updated
Fish Availability (Around the Project Site)	The fish availability rate is satisfactory
Fishing Areas (Around the Project Site)	River/open water fishing areas near the plant area
Fishing Problems Created from The Project Activities (Yes/No)	No problem has been reported yet
Remarks	The NWPGCL may help to do any kind of support for fishermen in the lean season

4.4.3 Photographs

Photo 4-4: Consultation with Upazilla Fisheries Officer, Sirajganj Sadar, Sirajganj

4.4.4 Recommendations

The NWPGCL may help to do any kind of support for fishermen in the lean season.

4.5 Department of Public Health Engineering

4.5.1 Details of Consultation

Name of the Stakeholder (Institution/Community)	Department of Public Health Engineering (DPHE)
Consulted Person	Md. Kamrul Hossain
Designation	Sub Assistant Engineer
Cell No.	01715149341
Consulted By	Syed Galib Shah
Designation	Consultant, ELRC
Date	20 July 2022
Time	11:27 AM

4.5.2 Discussion

Concerned Issues	Discussions
Ground Water Condition Around the Project Site Area	Iron has been found in some tubewells. In a nutshell, the overall quality is good.
DTW Depth	About 150-300 ft
STW Depth	About 35-40 ft
DTW Installation Cost	No recent installation has been incurred by DPHE
STW Installation Cost	About 2000 BDT per feet
Observation Well near the Project	There is no observation well near the plant site
Ground Water Level Related Complaints	There are no complaints yet from the local people regarding groundwater level
Remarks	Use surface water as an alternative to groundwater for cooling tower

4.5.3 Photographs

Photo 4-5: Consultation with Assistant Engineer, DPHE, Sirajganj Sadar, Sirajganj

4.5.4 Recommendations

It's better if the mega-project use surface water. The NWPGCL may intervene to mitigate iron contamination of groundwater and use surface water as much as possible instead of using groundwater following relevant government rules and regulations.

4.6 Fishing Community

4.6.1 Consultation Details

Name of the Stakeholder (Institution/Community)	Fishing Community, Boroshimul Village, Soydabad, Sirajganj
Consulted By	Md. Abdur Rab and Syed Galib Shah
Designation/Position	Consultant, ELRC
Date	20 July 2022
Time	12:18 PM

4.6.2 Participants Details

Sl. No.	Name	Age	Locations
1.	Md Abdul Goni Mia	55	Ponchosona Village
2.	Sukkur Ali Sadeq	42	Ponchosona Village
3.	Md. Khalek Howlader	51	Ponchosona Village
4.	Kiron karmaker	27	Ponchosona Village
5.	Md. Aziz Shikder	53	Ponchosona Village
6.	Khokon Howlader	24	Boroshimul Village
7.	Md. Malek Mridha	47	Boroshimul Village
8.	Md. Ruhul mia	42	Boroshimul Village
9.	Md. Kabir howlader	29	Boroshimul Village
10.	Mokhlesur Rahman	34	Boroshimul Village

4.6.3 Discussions

Concerned Issues	Discussions
Fishing Areas Around the Project Site (Number)	Mainly the Jamuna riverside and some ponds nearest the local residential area but not nearest to the project area
Fishing Practices	Current net, ber net, wheel, dragnet are using in this area
Available Fisheries	Mrigal, Koi, Kolisha, Madhu Pabda, Chital, Rui, Katla, Bhangan, Kalbaosh, Punti, Baila, Mola, Tilapia, Phasa Cavasi Tengra, Chanda, Chela, Pangas, Horina Chingri, Darkina, Parshi, Golda Chingri, Magur, , Pholi, Gazar/Gojar, Tara Baim, Tengra, Veda, Shal Baim, Shol, Taki
Quantity of Fisheries	Quantity is sufficient for the season.
Fishing Problems Created by Project Activities Around the Project Site Area (Yes/No)	Not yet observed any problem related to project activities
Remarks	No significant issues have been raised during the reporting report. The fisheries community reported overall well condition regarding fisheries resources.

4.6.4 Photographs

Photo 4-6: Focus Group Discussion (FGD) with Fishing Community

4.6.5 Recommendations

It is reported that the riverside fisheries quantity has not changed dramatically. According to the flood scenario of the project area, every year a few of fishes impacted by the flood high tide and sedimentation. As per the consultation with fisheries officer and fisherman of the project area, the project has no direct or indirect impact on the fisheries growth or mortality. Therefore, a comprehensive fisheries survey within the project area is recommended to identify more about fisheries resources of the project area.

4.7 Agricultural Farmers

4.7.1 Consultation Details

Name of the Stakeholder (Institution/Community)	Farmers Community, Boroshimul Village, Soydabad, Sirajganj
Consulted By	Syed Galib Shah
Designation/Position	Consultant, ELRC

Date	21 July 2022
Time	10:40 PM

4.7.2 Participants Details

Sl. No.	Name	Age	Locations
1.	Md. Salam Howlader	45	Boroshimul Village
2.	Md. Kuddus Molla	43	Boroshimul Village
3.	Md. Khalek Shikder	36	Boroshimul Village
4.	Shah Aman Ullah	29	Boroshimul Village
5.	Abdul Halim	52	Ponchosona Village
6.	Md. Habibur Rahman	25	Ponchosona Village
7.	Md. Babul Mia	43	Ponchosona Village
8.	Sobhan Munshi	40	Ponchosona Village

4.7.3 Discussions

Concerned Issues	Discussions
Agricultural Practices (Single, Double and Triple)	Double (paddy-jute)
Crop Types	Common Crops are paddy, pulse, jute, wheat, mustard, vegetables, etc.
Production Rate	Productivity is being decreasing for the last few years
Irrigation Practices	Deep and shallow tube well, natural and surface water
Irrigation Cost (Last and Present Year) Annual Revenue	10000-12000 BDT per Bigha (33 Decimal)
Agricultural Labor Availability	Scarce in peak season
Labourer Wages (Male, Female)	It was 450-500 BDT per day in last season for male labour, whether female workers are unavailable in this area
Remarks	Production rate is decreasing

4.7.4 Photographs

Photo 4-7: Focus Group Discussion (FGD) with Agricultural Farmers Community

4.7.5 Recommendations

Concerning issues are unavailability of deep tube-well and low agricultural productivity. The NWPGCL may take initiative to increase agricultural productivity with the involvement of the respective Upazila Agriculture Department.

4.8 Community Consultation

Community Health, Safety, and Emergency Preparedness Program has been conducted on 19 September 2022 at Punorbason Madrasha at Soydabad in Sirajganj Sadar Upazila under Sirajganj district with proper COVID-19 precaution and following management guidelines. The proceedings commenced at 12:15 PM. The program has been attended by a total of 36 people, which represent local people, day laborers, businessmen, students, teachers, senior citizens, and political leaders. The community has been made aware of the community health, safety, and emergency preparedness related to the following issues.

a. Flood
b. Gas Pipeline leakage
c. Oil Pipeline leakage
d. Traffic accident
e. Communicable and non-communicable diseases

4.8.1 Consultation Details

Name of the Stakeholder (Institution/Community)	Local Residence/Community
Consulted By	Md. Rofiul Karim and Md. Shafiqul Islam
Designation/Position	Consultant, ELRC
Date	19.09.2022
Time	12:15 PM

4.8.2 Photographs

The photographs of the Community Health, Safety, and Emergency Preparedness Program are given in the following table.

Photo 4-8: Public Consultation Meeting (PCM) with Local Community

4.9 EMF Awareness Training

An EMF Awareness training has been conducted on 20 September 2022 at Training room of Sirajganj 225 MW Combined Cycle Power Plant (Unit 2 & 3), Soydabad, Sadar, Sirajganj with proper precaution of COVID-19 pandemic. The proceedings commenced at 02:30 PM. The training has been attended by a

total of 10 people, which represent officers, staffs and workers of NWPGCL and ELRC personnel. The presented personnel have been trained on EMF phenomenon, precaution, reduction and other safety issues. The details of the training session have been presented below.

4.9.1 Training Details

Target Audience	Officers, Staffs and Workers of NWPGCL
Trainer	Md. Shafiqul Islam
Designation/Position	Consultant, ELRC
Date	20.09.2022
Time	02:30 PM

4.9.2 Photographs

The photographs of the Community Health, Safety, and Emergency Preparedness Program are given in the following table.

Photo 4-9: EMF Awareness Training with NWPGCL

5 CHAPTER 5: CONCLUSION

The project operation is the major concern for the proponent to establish a fully functioning power plant. Before the operation activity, a management plan had been submitted. Before the activity, different responses had been observed but during the operation activity and according to the interview session, a positive response is achieved. The local people in the interview look happy about the project and also have no objection to the operation of the power plant activity. Besides, this interview is so effective on future stakeholder engagement. Different professionals are participated in the interview and showed their positive responses on the whole agenda as well as operation activity.

All of the impacted stakeholders are considered for this interview session including the local healthcare unit, family welfare, agriculture office, fisheries department, fishing community, agricultural community, and local people. All of them are well responded and well behaved. All of the stakeholders are commented about the operation as positive view and they demand just to continue the activities with considering the adverse impacts. A training has also been conducted on electromagnetic field exposure and the personnel of NWPGCL trained on it with precaution, prevention and reduction.

The proponent is recommended to properly maintain the stakeholder engagement program.

ANNEXURE

Annex 1: PCM Presentation Slides

WELCOME/স্বাগতম

Community Health Safety and Emergency Preparedness Program 2022

"সামাজিক স্বাস্থ্য নিরাপত্তা ও জরুরি প্রস্তুতিমূলক কার্যক্রম ২০২২"

Date: 19.09.2022 Time: 12:15 PM

Venue: Punorbason Graveyard Madrasha, Soydabad Sirajganj

North-West Power Generation Company Limited

Sirajganj 225 MW Combined Cycle Power Plant (Unit 2 and 3)

ELRC 1

সামাজিক স্বাস্থ্য নিরাপত্তা ও জরুরি প্রস্তুতিমূলক কার্যক্রম ২০২২

❑ আলোচ্যসূচি

- বন্যা
- গ্যাস নিঃসরণ
- তেল নিঃসরণ
- সড়ক দুর্ঘটনা
- সংক্রামক এবং অসংক্রামক রোগ

ELRC 2

INTRODUCTION/ভূমিকা

- কমিউনিটিতে স্বাস্থ্য হুমকি, রাসায়নিক পদার্থ, ধোঁয়া, ভাইরাস, ব্যাকটেরিয়া, নিম্ন স্তরের বিকিরণ এবং পরিবেশে অন্যান্য সম্ভাব্য ক্ষতিকারক সাধারণ পদার্থ

- কমিউনিটি হেলথ অ্যান্ড সেফটি বলতে স্থানীয় কমিউনিটিগুলিকে প্রকল্পের কার্যক্রম (বন্যা, ভূমিধস, দূষণ বা অন্যান্য প্রাকৃতিক বা মানবসৃষ্ট বিপদ সহ), রোগ এবং দুর্ঘটনাজনিত পতনের কারণে সৃষ্ট বিপদ থেকে রক্ষা করাকে বোঝায়।

- কমিউনিটি প্রস্তুতি বলতে নাগরিকদের প্রশিক্ষণ, শিক্ষা এবং সম্পদ প্রদানের জন্য প্রচেষ্টা বোঝায় যা তাদের ব্যক্তিগত এবং সমষ্টিগত স্তরে সম্ভাব্য স্থানীয় দুর্যোগের হুমকির বিরুদ্ধে আগাম প্রস্তুতি নিতে সহায়তা করে থাকে।

ELRC 3

FLOODS/বন্যা

Floods in Bangladesh/বাংলাদেশে বন্যা

- বাংলাদেশে প্রতি বছর প্রায় ২৬,০০০ বর্গ কিলোমিটার প্লাবিত হয়
- ৫০ হাজারেরও বেশি লোক মারা যায় এবং সাত মিলিয়নেরও বেশি বাড়ি ধ্বংস করে
- এদের অধিকাংশই দেশের উত্তরাঞ্চলে ঘটে

ELRC 4

FLOODS/বন্যা

Floods in Project Area

- গত বছর হঠাৎ করে জেলার ৯ টি উপজেলার প্রধান অংশ প্লাবিত হয়েছিল
- এটি প্রতি বছরের ঘটনা
- অনেক মানুষ গৃহহীন এবং অনাহারে ছিল
- উন্নয়নের কারণে, আজকাল কম লোকই ভুক্তভোগী

ELRC 5

FLOODS/বন্যা

Preparation

- বন্যা হওয়ার পূর্বে করণীয়
  - বন্যা সম্পর্কিত তথ্যের পূর্বাভাস জানা
  - কোথায় যেতে হবে তা সম্পর্কে সুস্পষ্ট ধারনা রাখা
  - বিকল্প পথ সম্পর্কে জানা এবং আলাদা হয়ে গেলে কোথায় গিয়ে মিলিত হবে পুর্বেই আলোচনা করা
  - গুরুত্বপূর্ণ জিনিস ও গৃহপালিত পশু বিষয়ে পূর্বেই করনীয় সম্পর্কে আলোচনা করা
  - বৈদ্যুতিক সংযোগ বিচ্ছিন্ন করা
  - আকস্মিক বন্যার জন্য প্রস্তুত থাকা এবং প্রয়োজনে দ্রুত স্থান ত্যাগ করা

ELRC 6

FLOODS/বন্যা

During A Flood

- বন্যার সময় করণীয়
  - স্থানীয় নির্দেশনা অনুযায়ী শুকনো পথ চলাচলের জন্য ব্যবহার করা
  - ঘূর্ণয়মান পানির মধ্যে দিয়ে হেটে না যাওয়া এবং প্রয়োজনে লাঠি ব্যবহার করা
  - বৈদ্যুতিক সুইচ বা সংযোগ তার ভিজা অবস্থায় স্পর্শ না করা
  - বন্যার পানি পুরোপুরি সরে না যাওয়া পর্যন্ত নিরাপদ স্থানে থাকা
  - আকস্মিক বন্যা হলে উঁচু স্থানে সরে যাওয়া এবং গৃহপালিত পশু ছেড়ে দেওয়া

ELRC 7

FLOODS/বন্যা

After A Flood

- বন্যা পরবর্তী করণীয়
  - সাপ ও ক্ষতিকর পোকামাকড় থেকে রক্ষা পেতে প্রয়োজনীয় ব্যবস্হা নেয়া
  - বিশুদ্ধ পানি পান করা। সম্ভব হলে দশ মিনিট পানি ফুটিয়ে বা পানি বিশুদ্ধকরণ ট্যাবলেট ব্যবহার করা
  - ঘরের ভেতর শুকানোর জন্য দরজা জানালা খুলে আলো বাতাসের ব্যবস্থা করা
  - শিশুদের নিরাপদ খেলার জায়গা তৈরি করে বেড়া দেওয়া

ELRC 8

গ্যাস এবং তেল পাইপলাইন

ELRC 9

GAS PIPELINE LEAKAGE/ গ্যাস পাইপলাইনের ছিদ্র

Activities During Gas Leaking

- গ্যাস নিঃসরণের সময় করণীয়
  - গ্যাস নিঃসরণের স্থান ভাল করে পর্যবেক্ষন করা
  - গ্যাস নিঃসরনের উপস্থিতি নিশ্চিতের জন্য পাইপ লাইন থেকে অস্বাভাবিক (যেমন হিসিং শব্দ বা কটু গন্ধ) হলে তা পর্যবেক্ষন করা
  - গ্যাস নিঃসরনের উপস্থিতি নিশ্চিত হওয়া মাত্র স্থানটিকে খালি করতে হবে
  - সংশ্লিষ্ট কর্তৃপক্ষকে অবহিত করে পাইপ লাইনের সংযোগ বন্ধ করতে হবে

ELRC 10

GAS PIPELINE LEAKAGE/ গ্যাস পাইপলাইনের ছিদ্র

Activities After Gas Leaking

- গ্যাস নিঃসরণে পরবর্তী করণীয়
  - নিঃসৃত গ্যাস পাইপ লাইন এলাকা থেকে দ্রুত লোকজনকে দূরে সরিয়ে নেয়া
  - কোন ধরনের আগুন বা দাহ্য পদার্থ পাইপ লাইনের সংস্পর্শে না রাখা

ELRC 11

OIL PIPELINE LEAKAGE/তেল পাইপলাইনের ছিদ্র

Activities During Oil Leaking

- তেলের পাইপলাইন ফুটোর সময় করণীয়
  - যতদ্রুত সম্ভব স্থান ত্যাগ করতে হবে
  - তেল জাতীয় পদার্থ ধরা, ছোঁয়া বা অপসারন করা যাবে না
  - তেল যেন ছড়িয়ে না পড়ে সেদিকে খেয়াল রাখতে হবে

ELRC 12

OIL PIPELINE LEAKAGE/তেল পাইপলাইনের ছিদ্র

Activities After Oil Leaking

- তেলের পাইপলাইন ফুটোর পরবর্তী করণীয়
  - স্থানটিকে বেষ্টন করে দিতে হবে যাতে কেউ এর সংস্পর্শে না আসে
  - যতদ্রুত সম্ভব কন্ট্রোল রুমের সাথে যোগাযোগ করতে হবে
  - ফুটো হওয়া পাইপ লাইনের আশেপাশে কোন ধরনের দাহ্য পদার্থ থাকলে তা সরিয়ে ফেলতে হবে

ELRC 13

TRAFFIC ACCIDENT/ সড়ক দুর্ঘটনা

Causes/কারণসমূহ

- অতিরিক্ত গতি
- ফোন ব্যবহার
- ঘুমান
- অতিরিক্ত বোঝা
- সিট বেল্ট ব্যবহার না করা
- না দেখে রাস্তা পারাপার

ELRC 14

TRAFFIC ACCIDENT/ সড়ক দুর্ঘটনা

Prevention/প্রতিরোধ

- ❑ সিট বেল্ট ব্যবহার করা
- ❑ ফোন ব্যবহার না করা
- ❑ **গতি সিমীত** রাখা
- ❑ রাস্তা পারাপারে **সতর্ক** থাকা

ELRC 15

TRAFFIC ACCIDENT/ সড়ক দুর্ঘটনা

During An Accident

- ❑ দূর্ঘটনার সময় করনীয়
  - ❖ দূর্ঘটনাকবলিত যানবাহন থেকে যাত্রীদের নিরাপদে সরিয়ে আনতে হবে
  - ❖ দূর্ঘটনাকবলিত স্থানে গাড়ি চলাচল সাময়িকভাবে বন্ধ রাখতে হবে
  - ❖ প্রাথমিক চিকিৎসা সেবা প্রদানকারী টিমের সাথে যোগাযোগ করতে হবে
  - ❖ দূর্ঘটার মাত্রা বেশি হলে আহত ব্যক্তিদের স্থানীয় যানবাহনে করে চিকিৎসাকেন্দ্রে বা কোম্পানী কর্তৃক নির্ধারিত চিকিৎসাসেবা কেন্দ্রে নিতে হবে
  - ❖ নিকটস্থ থানায় দ্রুত যোগাযোগ করতে হবে

ELRC 16

TRAFFIC ACCIDENT/ সড়ক দুর্ঘটনা

After An Accident

- ❑ দূর্ঘটনা পরবর্তী করণীয়
  - ❖ আহত ব্যক্তিদের যতদ্রুত সম্ভব নিকটস্থ স্বাস্থ্যকেন্দ্রে নিয়ে প্রাথমিক চিকিৎসা দিতে হবে
  - ❖ দূর্ঘটনাকবলিত এলাকা নিরাপদ ফিতা দিয়ে বেষ্টন করতে হবে
  - ❖ দূর্ঘটনা সংক্রান্ত তথ্য সংগ্রহ করতে হবে

ELRC 17

COMMUNICABLE DISEASES/ সংক্রামক রোগ

- **সংক্রামক রোগ** সংক্রামক এজেন্টগুলির (যেমন ভাইরাস, ব্যাকটেরিয়া, ফাংগ্যাস, ইনফেকশন) দ্বারা সৃষ্ট হয় যা সংক্রামিত ব্যক্তি, প্রাণী বা পরিবেশের উৎস থেকে অন্য মানুষের কাছে প্রেরণ করা যেতে পারে।
- সংক্রামিত রোগসমূহঃ
  - যক্ষা
  - হেপাটাইটিস
  - ম্যালেরিয়া
  - কলেরা
  - ইনফ্লুয়েঞ্জা
  - এইচআইভি/এইডস

ELRC 18

COMMUNICABLE DISEASES/ সংক্রামক রোগ

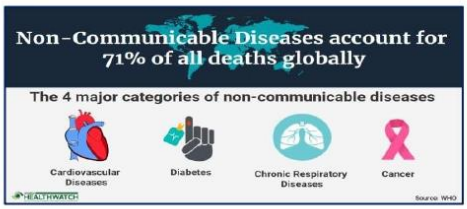
Prevention/প্রতিরোধ

- পরিষ্কার –পরিচ্ছন্ন থাকুন
- টিকা দেওয়া
- স্বাস্থ্যকর খাদ্য

ELRC 19

NON-COMMUNICABLE DISEASES/অসংক্রামক রোগ

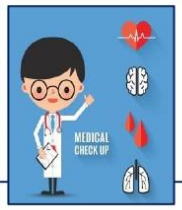
- এমন রোগ যা ব্যক্তি থেকে ব্যক্তির কাছে প্রেরণ করা যায় না - এতে কার্ডিওভাসকুলার রোগ (যেমন হার্ট অ্যাটাক এবং স্ট্রোক), ক্যান্সার, দীর্ঘস্থায়ী শ্বাসযন্ত্রের রোগ (যেমন দীর্ঘস্থায়ী প্রতিরোধী ফুসফুসের রোগ এবং হাঁপানি) এবং ডায়াবেটিস অন্তর্ভুক্ত।
- ঝুকির কারনসমূহঃ
  - ধূমপান
  - উচ্চ রক্তচাপ
  - স্থূলতা
  - মানসিক দুশ্চিন্তা
  - শারিরীক পরিশ্রম না করা



ELRC 20

NON-COMMUNICABLE DISEASES/অসংক্রামক রোগ

Prevention/ প্রতিরোধ



- ❑ ধূমপান মুক্ত থাকুন
- ❑ শারীরিক ব্যায়াম করুন
- ❑ নিয়মিত চেকআপ করান

ELRC 21

CONCLUSIONS/ উপসংহার

- ❑এই কর্মসূচি অনুযায়ী, আমাদের স্বাস্থ্য ও নিরাপত্তা-সংক্রান্ত সতর্কতা মেনে চলা উচিত
- ❑ব্যক্তিগত বা সম্মিলিতভাবে যে কোন ধরণের কমিউনিটি স্বাস্থ্য সুরক্ষার ব্যাঘাত সম্পর্কে আমাদের আরো সচেতন হওয়া উচিত
- ❑গ্যাস এবং পাইপলাইন লিকেজের মতো কোন প্রকল্প-ভিত্তিক সমস্যা হলে, অবিলম্বে যথাযথ কর্তৃপক্ষকে জানাতে হবে

ELRC 22

ELRC 23

Annex 2: PCM Attendance Sheets

Public Consultation Meeting

Community Health, Safety and Emergency Preparedness Program 2022

Sirajganj 225 MW Combined Cycle Power Plant (Dual Fuel,), Saidabad, Sadar, Sirajganj

Organized By: North-West Power Generation Company Limited (NWPGCL)

Supported By: Environmental Laboratory and Research Center (ELRC)

Date: 19/09/22; Time: 12:15 PM Location: Punorbason Madrasha, Soydabad, Sirajganj

SN#	Participant Name	Profession	Address	Mobile No.	Signature
1.	জাকির [illegible]	মজুর	সয়দাবাদ	01728258644	[illegible]
2.	রাহেল-আল-রাজী	চাকুরী	সিরাজগঞ্জ বিদ্যুৎ কেন্দ্র	01708152311	[illegible]
3.	মো: জুলকার নাইন	চাকুরী	সিরাজগঞ্জ বিদ্যুৎ কেন্দ্র	০১৭০৭-৪২৭২৬৬	Jullarnain
4.	[illegible]	কৃষি	বড়শিমুল	০১৭২৫-৫৫৭৭৬০	
5.	[illegible] মিয়া	কৃষি	"	[illegible]	মো: [illegible]
6.	[illegible]	কামারী	"	01710034938	[illegible]
7.	মো: হামিদুল মোল্লা	ব্যবসা	"	01712-113812	[illegible]
8.	মো: বকুল [illegible]	[illegible]	[illegible]	—	
9.	মো: [illegible]	ব্যবসা	"	01712076665	[illegible]
10.	মো: [illegible]	শ্রমিক	"	0174588734	[illegible]
11.	শহিদুল	শ্রমিক	সয়দাবাদ	০১৭২৮-৪৪৩৬৭৫	
12.	জাকারিয়া	ব্যবসা	"	০১৬৭০৫৪৪৬৪৬	
13.	কালাম [illegible]	কৃষি	"	০১৭০৫৯৭৯৪৯৯	[illegible]
14.	আব্দুল্লাহ	ব্যবসায়ী	বড়শিমুল	01763-980214	[illegible]
15.	মো: মেহেদী	ব্যবসা		০১৭৯৫৭৫৩৩০৫	মেহেদী

Sirajganj 225 MW CCPP 1 Public Consultation Meeting

Public Consultation Meeting

Community Health, Safety and Emergency Preparedness Program 2022

Sirajganj 225 MW Combined Cycle Power Plant (Dual Fuel,), Saidabad, Sadar, Sirajganj

Organized By: North-West Power Generation Company Limited (NWPGCL)

Supported By: Environmental Laboratory and Research Center (ELRC)

Date: ১৯/০৯/২২; Time: 12:15 PM Location:............

SN#	Participant Name	Profession	Address	Mobile No.	Signature
16.	মোজাম্মেল	ব্যবসা	সয়দাবাদ	০১৭৫৫৫৪০২৮২	মোজাম্মেল
17.	মো: খবির	ব্যবসা	"	০১৭৪০০৫৪৫৫১	মো: খবির
18.	মো: মোতালেব	কৃষি	"	০১৭৭২-৮৮৬ ৪৫৪০	মোতালেব
19.	মো: সাহালম	কৃষি	"	—	সাহালম
20.	মো: ওমর ফারুক	ব্যবসা	"	—	ফারুক
21.	মো: ইয়াকুব	জেলে	"	—	ইয়াকুব
22.	মো: মেহেদী	ব্যবসা	[illegible]	—	মেহেদী
23.	মো: জমাদ	ঠিকাদার	"	—	জমাদ
24.	মো: বেলাল হোসেন	ছাত্র	[illegible]	01766537594	বেলাল
25.	শহীদুল	কৃষি	"	01928950334	শহীদুল
26.	রাসেল	ব্যবসা	"	01812109525	রাসেল
27.	হামিদুল হক	শিক্ষক	"	০১৭২৫৮২৩০০০	হামিদুল
28.	সাইদুল	কৃষি	সয়দাবাদ	—	
29.	সোহেল	ব্যবসা	[illegible]	[illegible]	[illegible]
30.	মো: কামরুজ্জামান	শিক্ষক	"	০১৭০৭৭৭৮৮৪০	কামরুজ্জামান

Sirajganj 225 MW CCPP 2 Public Consultation Meeting

Public Consultation Meeting

Community Health, Safety and Emergency Preparedness Program 2022

Sirajganj 225 MW Combined Cycle Power Plant (Dual Fuel,), Saidabad, Sadar, Sirajganj

Organized By: North-West Power Generation Company Limited (NWPGCL)

Supported By: Environmental Laboratory and Research Center (ELRC)

Date: 17/09/22 ; Time: 12:15 PM Location: .....

SN#	Participant Name	Profession	Address	Mobile No.	Signature
31.	মো: আবু [illegible]	কৃষক	[illegible]	01742231775	[illegible]
32.	[illegible]	কৃষক	"	[illegible]	[illegible]
33.	[illegible]	[illegible]	"	—	[illegible]
34.	[illegible]	শ্রমিক	[illegible]	[illegible]	[illegible]
35.	[illegible]	শ্রমিক	"	01797875286	[illegible]
36.	[illegible]	[illegible]	"	[illegible]	[illegible]
37.					
38.					
39.					
40.					
41.					
42.					
43.					
44.					
45.					

Annex 3: EMF Awareness Training Presentation Slides

WELCOME

ELECTROMAGNETIC FIELD (EMF) EXPOSURE AWARENESS TRAINING

Date: 20.09.2022 **Time: 02:30 PM**

North-West Power Generation Company Limited

Sirajganj 225 MW Combined Cycle Power Plant (Unit 2 and 3)

ELRC 1

ELECTROMAGNETIC FIELD (EMF) EXPOSURE AWARENESSTRAINING

❑ **OUTLINE**

- Introduction
- Sources
- Health Effect
- Precaution
- Reduction
- Awareness
- Conclusion

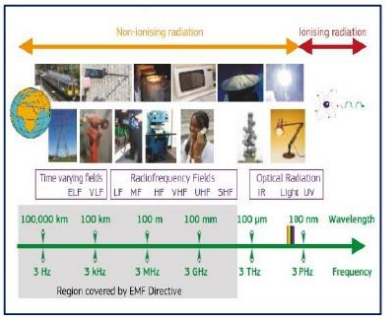
ELRC 2

INTRODUCTION

❑ Electromagnetic fields (EMF) are ubiquitous in our daily life

❑ EMFs are static electric, static magnetic and time-varying electric, magnetic and electromagnetic (radio wave) fields with frequencies

❑ In certain working environments, the application of high electric currents leads to extremely low frequency magnetic fields or electric fields with a frequency range of 1 Hz to 100 kHz

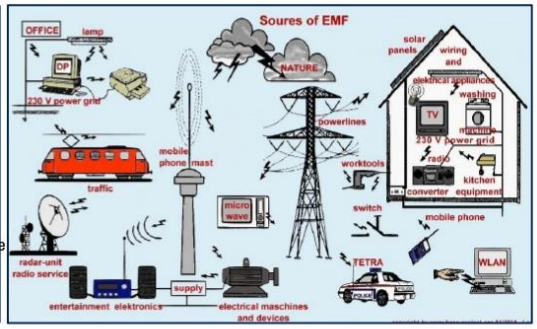


ELRC 3

SOURCES

❑ **Typical Outdoor Sources of Exposure:**

- Overhead Powerlines
- High PowerTransmission Lines
- Electric Means of Transportation, such asTrams andTrains
- Higher doses of EMF occur in the workplace, for example withMRI scanners, welding equipment, induction heaters, and in power plants



4

HEALTH IMPACT

❑ **Two Categories of health effect:**

- Thermal Effects – a body absorbs the radiation leading to localized tissue heating
- Non-thermal Effects – more subtle effects

Field and frequency range	Effects	Examples of activities and equipment
Static electric and static magnetic fields 0–1 Hz	**Indirect effects:** Uncontrolled attraction of ferromagnetic objects, ie the risk of injury from objects in a large static magnetic field being attracted to magnets in the workplace and hitting anyone in the way **Sensory effects:** Nausea, vertigo, metallic taste in the mouth, flickering sensations (magnetophosphenes) in peripheral vision **Health effects:** Micro shocks	MRI scanners (main magnet) Electrochemical processes, eg industrial electrolysis, aluminium extraction Nuclear magnetic resonance spectrometers Electromagnetic lifting cranes Electric vehicles (cars, underground trains)

5

HEALTH IMPACT

Field and frequency range	Effects	Examples of activities and equipment
Low frequency magnetic and electric fields: 1 Hz–10 MHz	**Indirect effects:** Interference with active or passive implanted or body-worn medical devices (more information is provided later in this guidance), electric shocks, causing electro-explosive devices to initiate, ie when used in close proximity to explosives that have an electrical means of initiation Sparks caused by induced fields triggering fires or explosions where flammable fuels, vapours or gases are present **Sensory effects:** Nausea, vertigo, metallic taste in the mouth, flickering sensations (magnetophosphenes) **Health effects:** Nerve stimulation, effects on the central and peripheral nervous system of the body: tingling, muscle contraction, heart arrhythmia Contact currents caused by a person touching a conductive object in an EMF where one of them is grounded and the other is not, which can result in shocks or burns	High voltage power lines Production and distribution of electricity Welding (arc and spot) Electrical arc furnaces Industrial induction heating (eg large coils used around the site of a weld) AM radio Electric hand-held tools Electric vehicles (cars, trains, trams, metros) Magnetic resonance imaging (MRI) (switched gradient fields)

6

HEALTH IMPACT

Intermediate frequency fields: 100 kHz–10 MHz	The health effects of both high and low frequencies can be experienced as detailed above and below (see also Annex 1)	Surgical diathermy Broadcasting systems and devices (AM radio) Anti-theft devices Military and research radiofrequency systems
High frequency fields: 100 kHz–300 GHz	**Indirect effects:** Interference with active or passive implanted or body-worn medical devices (more information is provided later in this guidance), electric shocks, causing electro-explosive devices to initiate, ie when used in close proximity to explosives that have an electrical means of initiation Sparks caused by induced fields triggering fires or explosions where flammable fuels, vapours or gases are present	MRI (RF coils) Broadcasting and TV antennas Radar and radio transmitters Diathermy Dielectric heating (eg vulcanising, plastics welding or microwave drying) Anti-theft systems

ELRC 7

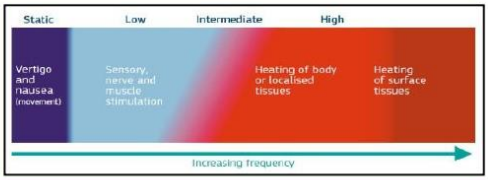
HEALTH IMPACT

Field and frequency range	Effects	Examples of activities & equipment
100 kHz–300 GHz	**Sensory effects:** Auditory effects such as perception of clicks or buzzing caused by pulsed radar systems **Health effects:** Thermal stress, heating effects leading to a rise in core body temperature or localised limb heating (eg knees or ankles) Contact with charged conducting bodies can lead to RF shock or deep tissue burns (see also Annex 1)	Broadcasting and TV antennas Radar and radio transmitters Diathermy Dielectric heating (eg vulcanising, plastics welding or microwave drying) Anti-theft systems

ELRC 8

HEALTH IMPACT

❑ **Direct Effect**



❑ **Indirect Effects**

- Interference with active or passive medical devices
- Projectile risks from ferromagnetic objects
- Electric shocks or burns from a conductive object in an EMF
- Ignition of electrical detonators / fires / explosions

ELRC 9

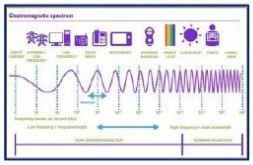
PRECAUTION

- Warning Signs Indicating Strong Electromagnetic Fields
- Fencing Around the EMF Generating Area
- Entry Restriction Signage
- Additional Warning Stickers
- Adequate Use of Body Worn Medical Devices
- Proper Use of Full Covered Safety Gown or Vest

10

REDUCTION

- Assess the Levels of EMFs
- Ensure that Exposure is Below a Set of ELVs, ' Exposure Limit Values '
- Assess the Risks of Employees' Exposure and Eliminate or Minimize Those Risks
- Plantation Around the EMF Area
- Displace Multi EMF Generating Devices
- Initiating EMF Absorbing Devices



11

AWARENESS

- Provide Information and Training on the Particular Risks Posed to Employees by EMFs in the Workplace
- The Information should also be Made Available to Safety Representatives, as Appropriate
- Take Action if Employees are Exposed to EMFs in Excess of the ELVs
- Provide Health Surveillance or Medical Examination, as Appropriate

12

CONCLUSIONS

- ❑ Precaution, Prevention and Reduction is the best way to control the EMF exposure in work place
- ❑ Proper guidance and controlled environment can be important for reducing EMF
- ❑ Considering health impact scenario, proper management should be demonstrated for reducing EMF
- ❑ Awareness training, knowledge sharing, information exchanging etc. may help to manage the low level EMF exposure in workplace

ELRC 13

ELRC 14

Annex 4: EMF Awareness Training Attendance Sheets

Electromagnetic Field Exposure (EMF) awareness Training
Sirajganj 225 MW Combined Cycle Power Plant (Unit 2 & 3), Saidabad, Sadar, Sirajganj

Date: 20/03/2022 Time: 2:30 PM Location: Training Room, Unit 1 and 2, NWPGCL

SN#	Participant Name	Profession/ Designation	Address	Mobile No.	Signature
1.	Md. Julkar Nain	Service (EM(EHS)	SPS	01737-497236	
2.	Md. Salim mian	Foreman EMD-U-3	SPS	01718-412441	
3.	Shipon	EMD.U-3	Sirajganj	01719534383	
4.	Mukhlesur	EMD-U-2	SPS	01745225[illegible]	
5.	Nahid	EMD-U-2	SPS	01760823718	
6.	Md. Badruzzaman	EMD -U3	SPS	01701061229	
7.	Mithun Chandra Das	EMD-U2	SPS	01746786179	
8.	Mashiour Mahmud Khan	DM (EHS)	MIS, CE's office, SPS	01708-152295	
9.	Md. Khaled Mahmud	JAM(IT)	MIS, CE's office SPS	01820558178	
10.	Syed Galib Shah	ELRC	Dhaka	01717502349	
11.					
12.					
13.					
14.					
15.					

Sirajganj 225 MW CCPP 1 Electromagnetic Field Exposure Awareness Training

ANNEX-C: Community Development Programme

North-West Power Generation Company Ltd. (NWPGCL)
Sirajganj Power Station
Soydabad, Sirajganj

Community Development Programme

Date: 09.03.2022

Title	**Renovation of toilets and washrooms in Jame Masjid beside Bangabandhu West Police Station near SPS**
Organizer	**Sirajganj Power Station, NWPGCL, Soydabad, Sirajganj**
Time	02:00 PM
Venue	Jame Masjid beside Bangabandhu West Police Station
Participants	Employees of Bangabandhu West Police Station, local people and Sirajganj Power Station.
Monetary Amount	1,90,1165/-

Pictorial Evidence


09.03.2022

North-West Power Generation Company Ltd. (NWPGCL)
Sirajganj Power Station
Soydabad, Sirajganj

Community Development Programme

Date: 13.08.2022 & 15.08.2022

Title	**Humanitarian relief to poor people and food distribution to orphans near Sirajganj Power Station.**
Organizer	**Sirajganj Power Station, NWPGCL, Soydabad, Sirajganj**
Time	09:00 AM-05.00 PM & 02:00 PM
Venue	Various places
Participants	Police Super, Tangail; Director, NWPGCL; CE, SPS & Employees of Sirajganj Power Station.
No of bags	5000 (Two Thousand) bags
No of food packets	150 (which cost 200/- per packet)
Each bag contains:	1. 10 kg rice 2. 2 kg pulse 3. 0.5 liter soyabean oil 4. 2 kg potato 5. 1 kg salt 6. 0.5 kg onion

Pictorial Evidence


13.08.2022


স্বাধীনতার মহান স্থপতি জাতির পিতা বঙ্গবন্ধু শেখ মুজিবুর রহমান-এর
৪৭তম শাহাদত বার্ষিকী ও জাতীয় শোক দিবস ২০২২ উপলক্ষ্যে
নর্থ-ওয়েস্ট পাওয়ার জেনারেশন কোম্পানি লিঃ-এর CSR কার্যক্রমের আওতায়
সিরাজগঞ্জ বিদ্যুৎ কেন্দ্রের পার্শ্ববর্তী এতিমখানার এতিমদের মাঝে
খাবার সরবরাহ
তারিখ : ১৫ আগস্ট, ২০২২
কেন্দ্র, সয়দাবাদ, সিরাজগঞ্জ


15.08.2022

ANNEX-D: Scan Copy of GRM Book

NORTH-WEST POWER GENERATION COMPANY LIMITED
SIRAJGANJ POWER STATION (UNIT-1, 2 & 3)
GRIEVANCE REGISTER

SL No.	Date of Receipt	Particulars of Complaint				Particulars of Grievance			
		Name	Address	Landline /Mobile	Whether acknowledge-ment given at the time of receipt	Subject of the Grievance	Office	Brief Description	Date of Acknowledge-ment/redress
					No grievance is found 31/07/2022				

6

NORTH-WEST POWER GENERATION COMPANY LIMITED
SIRAJGANJ POWER STATION (UNIT-1, 2 & 3)
GRIEVANCE REGISTER

SL No.	Date of Receipt	Particulars of Complaint				Particulars of Grievance			
		Name	Address	Landline /Mobile	Whether acknowledge-ment given at the time of receipt	Subject of the Grievance	Office	Brief Description	Date of Acknowledge-ment/redress
					No grievance is found 29/08/2022				

7

NORTH-WEST POWER GENERATION COMPANY LIMITED
SIRAJGANJ POWER STATION (UNIT-1, 2 & 3)
GRIEVANCE REGISTER

SL No.	Date of Receipt	Particulars of Complaint				Particulars of Grievance			
		Name	Address	Landline /Mobile	Whether acknowledge-ment given at the time of receipt	Subject of the Grievance	Office	Brief Description	Date of Acknowledge-ment/redress
					No grievance is found		Kawsar 29/09/2022		

8

NORTH-WEST POWER GENERATION COMPANY LIMITED
SIRAJGANJ POWER STATION (UNIT-1, 2 & 3)
GRIEVANCE REGISTER

SL No.	Date of Receipt	Particulars of Complaint				Particulars of Grievance			
		Name	Address	Landline /Mobile	Whether acknowledge-ment given at the time of receipt	Subject of the Grievance	Office	Brief Description	Date of Acknowledge-ment/redress
					No grievance is found		Arifuzzaman 30/10/2022		

9

NORTH-WEST POWER GENERATION COMPANY LIMITED
SIRAJGANJ POWER STATION (UNIT-1, 2 & 3)
GRIEVANCE REGISTER

SL No.	Date of Receipt	Particulars of Complaint				Particulars of Grievance			
		Name	Address	Landline /Mobile	Whether acknowledgement given at the time of receipt	Subject of the Grievance	Office	Brief Description	Date of Acknowledgement/redress
			No grievance is found		Aulkarnain 29/11/2022				

10

CamScanner

ANNEX-E: Updated Fire License

ক্রমিক নং

অনিবেপ্র ০০৩
প্রথম সংস্করণ ২০১২

V-09, P-35

ফায়ার লাইসেন্স

লাইসেন্স নম্বর	এডি/পাবনা-৩৮৪১/২০২১-২০২২

এতদ্বারা অগ্নি প্রতিরোধ ও নির্বাপণ আইন ২০০৩ এর ৪ ধারা অনুযায়ী এবং উল্লেখিত শর্তাবলী সাপেক্ষে ফায়ার লাইসেন্স ইস্যু করা হইল।

১। মালগুদাম/কারখানার মালিক/ব্যবহারকারী/কর্তৃপক্ষের নাম, পদবী ও ঠিকানা ঃ

প্রতিষ্ঠানের নাম ঃ সিরাজগঞ্জ ২২৫ মে:ও:ক:সা:বিদ্যুৎ কেন্দ্র(১ম,২য়,৩য়)ইউনিট ও ৭.৬ মে:ও: সোলার প্লান্ট

মালিকের নাম ঃ প্রধান প্রকৌশলী।

গ্রাম/রাস্তা:মন্ডলগাতী,ডাকঘর:ভেকুটিয়া-৭৪০০,যশোর সদর,যশোর ।

ফোন ঃ ..... ফ্যাক্স ..... ই-মেইল ঃ .....

২। মালগুদাম/কারখানার অবস্থান ঃ (ক) প্লট নং/হোল্ডিং নং বড়শিমুল পঞ্চসোনা

(খ) দাগ নং ..... (গ) খতিয়ান নং ..... (ঘ) জে এল নং .....

(ঙ) মৌজা ..... (চ) রোড নং ..... (ছ) ডাকঘর সয়দাবাদ

(জ) থানা সিরাজগঞ্জ (ঝ) উপজেলা সিরাজগঞ্জ (ঞ) জেলা সিরাজগঞ্জ

৩। ভবনের ব্যবহার শ্রেণী ঃ

৪। ভবনের নির্মাণ শ্রেণী ও পরিমাপ ঃ পাকা ভবন

শ্রেণী-১	শ্রেণী-২	শ্রেণী-৩	দৈর্ঘ্য	প্রস্থ	উচ্চতা	মোট মেঝের ক্ষেত্রফল (বর্গ মিটার)
						৩,৪৯,৩৫০ বর্গফুট।

৫। দাহ্য বস্তুর নাম ও মজুদ পরিমাণ ঃ প্লাস্টিক জাতীয় দ্রব্য।

৬। ব্যবসার ধরন ঃ বিদ্যুৎ উৎপাদন।

৭। অগ্নি ঝুঁকির মাত্রা ঃ (ক) হালকা-১ (খ) হালকা-২ (গ) সাধারণ-১ (ঘ) সাধারণ-২ (ঙ) সাধারণ-৩ (চ) অতিমাত্রা

৮। অগ্নি ঝুঁকির শ্রেণীবিন্যাস (মোট ফ্লোর এরিয়ার আনুপাত ভিত্তিতে) ঃ A.....%, B.....%, C.....%, D.....%, K.....%

০৯। মাশুলের পরিমান=১২০০/-টাকা, ভ্যাট=১৮০/- টাকা।

১০। নবায়ন অর্থবছর ২০২১-২০২২(৩০ জুন ২০২২ খ্রি: পর্যন্ত)।

মো: নিজাম উদ্দিন
সহকারী পরিচালক
ফায়ার সার্ভিস ও সিভিল ডিফেন্স
পাবনা।

উপ পরিচালক/সহকারী পরিচালক/উপ-সহকারী পরিচালক
ফায়ার সার্ভিস ও সিভিল ডিফেন্স.....।

শিশুশ্রম নিষিদ্ধ

জরুরী প্রয়োজনে

সিরাজগঞ্জ ফায়ার স্টেশন-০১৭৩০-০০২৫৪৯
বিভাগীয় নিয়ন্ত্রণ কক্ষ- ০১৭৩০-৩৩৬৬৫৫

লাইসেন্সের শর্তাবলী

(১) প্রতি বছর ৩০ জুনের মধ্যে এই লাইসেন্সের অনুকূলে মাশুলের টাকা অগ্রিম লাইসেন্স ফি হিসাবে পরিশোধ করিতে হইবে।

(২) এই লাইসেন্স হস্তান্তরযোগ্য নহে এবং কেবলমাত্র ক্রমিক ২ এ উল্লেখিত অবস্থানের জন্যই প্রযোজ্য হইবে।

(৩) লাইসেন্সের শর্তাবলী যথাযথভাবে পালিত হইতেছে কিনা তাহা যাচাই করার জন্য অধিদপ্তরের ক্ষমতাপ্রাপ্ত কর্মকর্তা যে কোন কার্য দিবসে গুদাম বা কারখানা পরিদর্শন করিতে পারিবেন এবং পরিদর্শনকালে সংশ্লিষ্ট কর্তৃপক্ষ ইস্যুকৃত ফায়ার লাইসেন্সটি প্রদর্শন করিতে বাধ্য থাকিবেন।

(৪) সার্বিক অগ্নি নিরাপত্তা ব্যবস্থা বাংলাদেশ ন্যাশনাল বিল্ডিং কোড ও অগ্নি প্রতিরোধ ও নির্বাপণ আইন ২০০৩ এবং সংশ্লিষ্ট বিধির ভিত্তিতে নিশ্চিত করিতে হইবে।

(৫) অগ্নি প্রতিরোধ ও নির্বাপণ আইন ২০০৩ মোতাবেক লাইসেন্সের শর্ত ভঙ্গ করিলে শাস্তিযোগ্য অপরাধ হিসাবে গণ্য হইবে।

০৬। উক্ত প্রতিষ্ঠানে আইএসও মান সম্পন্ন ৫/৬ কেজি ৪২২ টি ডিসিপি, ২১১ টি সিওটু, ০৯/১০ লিঃ ফোম ১০ টি ফায়ার এক্সটিংগুইশার সংরক্ষণ করিতে হইবে।

০৭। ০১ টি হোজরীজ ব্যবস্থা এবং পর্যাপ্ত পানি ধারণ ক্ষমতা সম্পন্ন ভূগর্ভস্থ জলাধার রাখতে হবে।

কর্মকর্তা ও কর্মচারিদের ফায়ার সার্ভিস কর্তৃক প্রশিক্ষণের ব্যবস্থা করতে হবে। এছারাও আরও কোন শর্ত আরোপিত হলে তা পালন করতে হবে।

তারিখ	চালান নং	মাশুলের পরিমাণ	অর্থ বছর (১ জুলাই-৩০ জুন)	নবায়নকারীর স্বাক্ষর ও নামাঙ্কিত সীল
২৮/২/22	৮৮, ৮৯	=১২০০/- vat: ১৮০/-	2021-2022	০৩/৩/22 মোঃ আব্দুল মালেক ওয়্যারহাউজ ইন্সপেক্টর ফায়ার সার্ভিস ও সিভিল ডিফেন্স পাবনা
১৫/৬/22	৩১৬ ৩১৭	=১২০০/- vat: ১৮০/-	2022-2023	২০/09/22 মোঃ আব্দুল মালেক ওয়্যারহাউজ ইন্সপেক্টর ফায়ার সার্ভিস ও সিভিল ডিফেন্স পাবনা।

ANNEX–F: First Aid Training

North-West Power Generation Company Ltd. (NWPGCL)
Sirajganj 225 MW Combined Cycle Power Plant (Dual Fuel-2nd Unit)
Soydabad, Sirajganj

Training on First Aid

Date: 08.09.2022

Trainer	Dr. Md. Golam Kibria
Time	10:30 AM -01:00 PM
Venue	Zoom Meeting
Participants	All employee of Sirajganj Power Station
Training Session	i. Discussion on First aid and importance ii. Use of First aid Kit iii. Question & Answer
Discussion issue	1. Definition of first aid 2. Emergency needs 3. Incident in power plant 4. First aid after attack i. Unconsciousness ii. Heat stroke iii. Burns iv. Wounds, Cut injury, Accident Injury v. Electric Shock vi. Snake bite/Dog bite/Insects bite vii. Chemicals burn of eye viii. Fracture 5. First aid Items on First Aid Kits 6. Use of First aid items

Attachment:

Attendance Sheet

Attendance Sheet

NORTH-WEST POWER GENERATION COMPANY LIMITED	NORTH-WEST POWER GENERATION COMPANY LIMITED Training Attendance Sheet	FORM NO: NW-DH-HR-F-005 EFFECTIVE DATE: 21.04.2018 REVISION NO: 00

Location: Sirajganj Power Station

Organizer Department	: HR
Course Name and ID	: Primary Management of Incident/Accident (First Aid)
Date	: 08.09.2022
Duration	: 10.30 am to 1.00 pm
Total Man Hour	: ৩ × ১১ = ৩৩ Hrs.
Facilitator	: জনাব ডাঃ গোলাম কিবরিয়া , সিনিয়র মেডিক্যাল অফিসার (ভারপ্রাপ্ত)

Office: Sirajganj 225 MW Combined Cycle Power Plant (Unit-3)

Sl. No.	Name of the Participants	Designation and Department/Office	Participant's Signature
1.	মোঃ মাকছুদুর রহমান	সহকারী প্রকৌশলী	
2.	মোহাম্মদ ইমন	উপ-সহকারী প্রকৌশলী	
3.	মোঃ আফছার উদ্দিন রাজু	উপ-সহকারী প্রকৌশলী	08.09.22
4.	মোঃ সানোয়ার হোসাইন	জুনিঃ সহকারী ব্যবস্থাপক	08.09.22
5.	মোহাম্মদ সেলিম মিঞা	ফোরম্যান	Salim
6.	মোহঃ শামনুর আলম	ফোরম্যান	
7.	মোঃ তুরজাউন মোল্যা	ড্রাইভার	
8.	সালাউদ্দিন গাজী	ওয়ার্ক এসিসটেন্ট	
9.	সুজন হাওলাদার	ওয়ার্ক এসিসটেন্ট	
10.	মোঃ মারুফ হোসেন	হেলপার	08.09.22
11.	মোঃ মাসুদ তালুকদার	অফিস সহায়ক	

Signature of facilitator:
Date: 08.09.2022

ANNEX-G: Greenhouse Gas Emissions

Green House Gas Emission Calculation for Sirajganj 225 MW Combined Cycle Power Plant (Dual Fuel-3rd Unit)

Period: January, 2022 to December, 2022

Green House Gas Emissions

The Kyoto Protocol – United Nations Framework Convention on Climate Change nominates the following GHGs:

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous Oxide (N_2O);
- Hydrofluorocarbons (HFCs); and
- Perfluorocarbons (PFCs).

Inventories of GHG emissions can be calculated using published emission factors. Different gases have different greenhouse warming effects (referred to as warming potentials) and emission factors take into account the global warming potentials of the gases created during combustion. Typically, greenhouse gas emissions are reported in units of carbon dioxide equivalent (CO_2e). Gases are converted to CO_2e by multiplying by the gas global warming potential (GWP). The GWP of gases are as follows[2]:

- GWP for CO_2 = 1
- GWP for CH_4 = 21
- GWP for N_2O = 310

When the global warming potentials are applied to the estimated emissions then the resulting estimate is referred in terms of CO_2-equivalent (CO2e) emissions.

GHG emissions are estimated in two scopes:
- Scope 1 emissions are direct emissions from owned or controlled sources;
- Scope 2 emissions are indirect emissions from the generation of purchased energy;

Scope

Scope 1	Scope 2
• Fuel combustion from Combined cycle Power plant	• Vehicles used by officials and other stuff of NWPGCL for official purpose

GHG Estimation and Impact

The combustion of natural gas produces GHGs. The amount of GHGs emitted by a power plant is a measure of its contribution to global warming and can be estimated based on fuel consumption. In order to estimate GHG emissions, the IFC recommended Carbon Emission Estimation Tool (CEET

[2]Source: Intergovernmental Panel on Climate Change (IPCC) (1995), Second Assessment Report

model – Version February 2014)[3] has been used as set out below.
The quantification of the GHG emission is from January 2022 to December 2022.

Scope 1

Table: Estimated GHG Emissions from the Plant (In Natural Gas)

SL#	Particular	Value	Unit
A*	Net Heat Rate (Natural Gas in Combined Cycle)	8,139.17	KJ/KWH
B*	Gross Generation Capacity (Combined Cycle)	228,500.00	KW
C	Operating Days per year	256.58	days
D	Daily Operating Hours	24.00	Hours/day
E	Total Annual Output (B X C X D)	1,407,093,860.00	KWH
F	Annual Fuel Consumption (E x A)	11,452,571,346,594.70	KJ
		11,452.57	TJ
G*	Annual GHG Emission in Gas Turbine	**643,085**	tCO_2e/year

Table: Estimated GHG Emissions from the Plant (In HSD)

SL#	Particular	Value	Unit
A*	Net Heat Rate (Natural Gas in Combined Cycle)	-	KJ/KWH
B*	Gross Generation Capacity (Combined Cycle)	228,500	KW
C	Operating Days per year	-	days
D	Daily Operating Hours	24.00	Hours/day
E	Total Annual Output (B X C X D)	-	KWH
F	Annual Fuel Consumption (E x A)	-	KJ
		-	TJ
G*	Annual GHG Emission in Diesel	0	tCO_2e/year

Scope 2

Estimated GHG Emissions from the fuel consumed Vehicles

For diesel, Octane and Compressed Natural Gas (CNG) used in the vehicles have been contributed 20, 2 and 104tCO_2/year during the period of January 2022 to December 2022. Therefore, total emission from fuel consumed mobile vehicles is 126 tCO_2/ year.

Total GHG Emissions

Total GHG Emission = Natural Gas + Mobile Vehicles

= (643085+126) tCO_2/year

= 643,211 tCO_2/year

So, from January 2022 to December 2022, the annual emission of GHG from the Unit 3 is about **643,211 tCO_2/year.**

[3]http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/CB_Home/Measuring+Reporting/

ANNEX-H: Updated ESAP & CS

S. No (A)	Element (D)	Deliverable (E)	Responsibility	Timeline (F)	Responses (G)
1	Submit declaration for implementation of ESMS and revised ESHIA	Declaration Letter from NWPGCL	NWPGCL	Condition Precedent	Implemented
2	Environment &Social Management Plan (ESMP) to be developed by the EPC for the project taking into consideration ESMSof NWPGCL, EHSIA Environment & Social Management& Monitoring Plan and its subsequent revisions (if any).	ESMP	EPC	Condition Precedent	Implemented
3	NWPGCL to appoint Environment &Social Head at the corporate level	NWPGCL to prepare a job description and appointment date for E&S Manager	NWPGCL	Condition Precedent	Implemented
4	Unit-3 EHS and social reporting to corporate should be provisioned, by means of developing terms of reference/job description for EHS Manager for the Unit-3.	Job Description of EHS Manager of Unit-3	NWPGCL	Condition Precedent	Implemented
5	A specific training plan should be established specifying training requirements, definition of training sessions, duration, frequencies, syllabus, and verification of training programs through feedback forms. Training calendar to be developed in line with requirements of ESMS and ESHIA for construction and operation phase.	Develop a training calendar	NWPGCL &EPC	Condition Precedent	Implemented
6	EPC organogram to detail position for EHS and Social Officer before start of construction works.	Contractor organogram and appointment letters	Contractor	Condition Precedent	Implemented
7	Identify and finalize independent organization who will responsible for	Appointment of third party consultant	NWPGCL &EPC	Condition Precedent	Implemented

S. No (A)	Element (D)	Deliverable (E)	Responsibility	Timeline (F)	Responses (G)
	implementation of environment monitoring compliance plan and EMP				
8	Contractor agreements to incorporate review of EHS and Social performance of EPC of Unit-3 in line with ESMS and EHSIA	Formal Communication from NWPGCL to EPC and EPC agreement to the same	NWPGCL &EPC	Condition Precedent	Implemented
9	Develop Stakeholder Engagement Plan as per Performance Standard 1 and ESMS requirements NWPGCL &EPC to prepare and Lenders to approve Stakeholder	NWPGCL&EPC to prepare and Lenders to approve Stakeholder Engagement Plan	NWPGCL &EPC	Condition Precedent	Implemented
10	EPC to comply with Performance Standard 2 requirements such as prohibition of child and forced labour at work place, payment of wages, working hours etc. Workers accommodation to be provided as per IFC Performance Standards 2 requirements and time bound monitoring of quality of accommodation provided and basic services to be reviewed.	Formal communication from NWPGCL to EPC and EPC agreement to the same	NWPGCL &EPC	Condition Precedent	Implemented
11	During the construction phase, undertake semi annual labor audits of contractors and sub contractors.	Labour Audit report as a part of the E&S monitoring report	NWPGCL &EPC	To be reviewed on an ongoing basis as a part of the Semi annual/ annual site visits and reporting by Lender's E&S consultant	NA Now it is in operation stage
12	Workers and community grievance management procedure to be developed and implemented as per Performance Standard 1	NWPGCL&EPC to prepare and Lenders to approve Grievance	NWPGCL &EPC	Condition Precedent	Implemented

S. No (A)	Element (D)	Deliverable (E)	Responsibility	Timeline (F)	Responses (G)
	requirements.	redress mechanism			
13	Provision of occupational health centre and medical examination of workers during construction phase to be ensured by EPC in line with ESMS and ESHIA requirements	Formal communication from NWPGCL to EPC and EPC agreement to the same	NWPGCL &EPC	Condition Precedent	Implemented
14	i) NWPGCL required to report publicly on an annual basis on GHG emission levels during the operational phase for the project. The company should disclose their GHG emissions annually through corporate reports, or through other voluntary disclosure which specifies details project level emissions on annual basis. ii) NWPGCL should strive for technically and financially feasible and cost effective options available to reduce project-related GHG emissions during the design, construction and operation of the Project.	i) Develop mechanism for GHG quantification ii) GHG Evaluation Report / MoM of technical design meetings	NWPGCL	To be reviewed on an ongoing basis as a part of the Semi annual/annual site visits and reporting by Lender's E&S consultant	Annex G
15	Adequacy and efficiency assessment of the CETP shall be provided before installation with identification of critical equipment for operations and its preventive maintenance schedule	Adequacy and efficiency assessment report/ technical design documents of ETP when finalized	NWPGCL	To be reviewed on an ongoing basis as a part of the Semi annual/annual site visits and reporting by Lender's E&S consultant	Implemented
16	NWPGCL should maintain minutes of meetings conducted with their stakeholders and should consider including the stakeholders in regular training exercises (e.g., simulations, drills, and debriefs of exercises and actual events) to familiarize them with proper	Records of minutes of meetings	NWPGCL	To be reviewed on an ongoing basis as a part of the Semi annual/annual site visits and reporting by Lender's	Implemented

S. No (A)	Element (D)	Deliverable (E)	Responsibility	Timeline (F)	Responses (G)
	procedures in the event of an emergency			E&S consultant	
17	Ensure that there is no office or labour camp around the RMS station and within a radius of at least 200m from the RMS station.	NWPGCL to prepare and Lenders to approve general drawings from lenders for labour and officer accommodation	NWPGCL &EPC	To be reviewed on an ongoing basis as a part of the Semi annual/annual site visits and reporting by Lender's E&S consultant	Implemented

ANNEX-I: Development Effectiveness Indicators

"শেখ হাসিনার উদ্যোগ, ঘরে ঘরে বিদ্যুৎ"
নর্থ-ওয়েস্ট পাওয়ার জেনারেশন কোম্পানি লিমিটেড
NORTH-WEST POWER GENERATION COMPANY LIMITED
ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified
(An Enterprise of Bangladesh Power Development Board)
ইউটিসি ভবন, (লেভেল ৩ ও ৪), ০৮ পান্থপথ, কাওরানবাজার, ঢাকা-১২১৫। ফোন- ৪৮১২২১১৭-১৮

Memo No. 27.28.0000.301.99.001.20.240 Date: 19/09/2022

Sirajganj 225 MW Combined Cycle Power Plant Project (Dual Fuel-3rd Unit)

Development Effectiveness Indicators

Section One: General Indicators

Key Impact Area	Result	Indicator	Status
Financial Performance	Return to all capital Providers	Financial rate of return	2.56% (From July, 2021 to June, 2022)
Economic Performance	Employment	Percentage of Female Employment (%)	Female Employee: 37 Percentage: 4.24% (Up to June, 2022)
	Employment	Temporary jobs during construction; permanent jobs	Total Employee:872 Permanent Employee: 848 Temporary Employee: 24 (Up to June, 2022)
	Contribution to government	Taxes and Fees (US$/year)	USD 28,628,471 (From July, 2021 to June, 2022)
Environmental and Social Performance	Improved E&S conditions	E&S Management Systems: (y/n)	Yes
Private Sector Development	Supports for domestic businesses	Purchases from domestic suppliers (US$/year)	USD 250,252,545 (From July, 2021 to June, 2022)

Definitions

Taxes and Fees: All transfers to all levels of the government made by the Project Enterprise or its parent on its behalf, including: income or profit taxes, sales, and excise taxes, and VAT receipts. Other payments collected by the government include royalties, bonuses, dividends, management/concession fees, share of profit, licensing, permitting, etc. Specific subsidies to the Project Enterprise should be deducted.

E&S Management Systems: The indicator refers to the Project Enterprise's E&S Management System ("ESMS") and tracks whether the Project Enterprise is compliant with MIGA's Performance Standard 1 and has an ESMS active and in place.

Page 1 of 2

Purchases from domestic suppliers: The annual purchase of goods and services of the Project Enterprise from local suppliers (including raw materials, civil works, engineering and installation, security, gardening, cleaning, and marketing and research from local companies). This will exclude utility bills, government-provided services and imports handled through a local facilitating agent.

Direct Employment: Total number of employees working directly for the Project Enterprise as of the end of its fiscal year. The unit of account is a permanent full-time equivalent paid job. To be treated as permanent, the job should have a life expectancy of at least one year at the time of forecast. Part-time jobs are converted to full-time equivalent jobs on a pro rata basis with anything over 30 hours/week treated as full time. If the information is not available the rule-of-thumb is two part-time jobs equal a full-time job. Seasonal jobs are incidental to the operation. However, if the Investment Project relies heavily on seasonal jobs, as in the tourism sector for example, they should be included on a pro rata basis, a 3-month job becoming 0.25 of a full-time equivalent job (i.e., 4 jobs for 3 months equals one job on an annual basis).

Female Employment: Total female employment as a percentage of total employees in the Project Enterprise. This is a sub category of employment and so definition of total direct employment as described above should be used in this calculation. Subcontractor employment should not be reported.

Section Two: Sector - Specific Indicators

Power Produced	1271.25584 GWhs (July, 2020 to June, 2021)
Improved Occupational Health and Safety	No Injury
Minimize Green House Gas Emission	759,457 tCO_2 equivalent (July, 2020 to June, 2021)
Water efficiency	(During operations 45,74,194 m^3 consumed/ unit of production for S2&S3) (July, 2021 to June, 2022)

19.9.2022

Mashuda Parvin
Manager (EHS)
NWPGCL, Dhaka

19/09/2022

Engr. Md. Saiful Islam
Chief Engineer (In-Charge)
Planning and Design, Corporate Office
NWPGCL, Dhaka