



**National Transmission & Despatch
Company Limited (NTDC) Pakistan**

**DETAILED TERMS OF REFERENCES (TORS)
FOR
ENVIRONMENTAL IMPACT ASSESSMENT
(EIA) STUDY OF NTDC PROJECT;
220 KV TRANSMISSION SYSTEM NETWORK
REINFORCEMENT IN ISLAMABAD, TARBELA
AND BURHAN AREA**

October, 2016

Prepared By:

**Environment and Social Impact Cell, NTDC
Room No. 140, WAPDA House Lahore
Phone: 0092 4299202211 Ext 2141
Email ID: esic@ntdc.com.pk**

**DETAILED TERMS OF REFERENCES (TORS) FOR
ENVIRONMENTAL IMPACT ASSESSMENT (EIA) STUDY OF NTDC
PROJECT**

**220 KV TRANSMISSION SYSTEM NETWORK REINFORCEMENT IN
ISLAMABAD, TARBELA AND BURHAN AREA**

A. Background:

National Transmission & Despatch Company Limited (NTDCL) was incorporated on 6th November, 1998 and commenced commercial operation on 24th December, 1998. It was organized to take over all the propertise, rights and assets obligations and liabilities of 220 KV and 500 KV Grid Stations and Transmission Lines/Network owned by Pakistan Water and Power Development Authority (WAPDA). NTDC operates and maintains twelve 500 KV and twenty nine 220 KV Grid Stations, 5077 km of 500 KV transmission line and 7359 km of 220 KV transmission line in Pakistan.

B. Project Description:

NTDC has planned to develop the project namely: "220 kV transmission system network reinforcement in Islamabad, Tarbela and Burhan area". This project involve following components:

- Replacement of existing 220 kV Tarbela-Burhan D/C transmission line with a new line on twin bundled Rail conductor (35.1 km).
- In/Out of one circuit of 220kV Mansehra-ISPR D/C Transmission line at Islamabad (28 km).

C. Scope/Objective of EIA Study:

The specific objective of EIA is to:

- Identify adverse environmental impacts associated with transmission lines.
- Develop an Environmental Management & Monitoring Plan (EMMP) for the adverse environmental impacts.
- The consultant will also ensure that the EIA report reflects the compliance with the national laws & regulatory framework as well as international standards.

D. Major Components of EIA

Baseline Conditions: The consultant will review the available literature, visit the project area and consult EISC, NTDC and other line departments to establish the baseline conditions in terms of physical and biological environment and socio-economic conditions in the project area. The consultant will prepare maps of suitable scale to highlight the socio-environment resources of the project area. The baseline

will also identify the project affectees with anticipated impacts on them. Environmental monitoring reports (ambient air quality, water tests, noise levels) would also be made part of EIA report and monitoring should be conducted by EPA certified laboratory.

Analysis of Alternatives: The consultant will analyze alternative siting of transmission lines in terms of their environmental and social impacts and benefits. The analysis should include the siting process, based on the description of the selected route, the alternative routes and the justification for the choice. Based on the selected route, the consultant will identify and prepare maps showing the corridor of impact (CoI). The analysis of alternatives will also avoid/minimize these impacts.

Public/stakeholders' Consultations: The consultant will identify project stakeholders and hold consultations with them to delineate the appropriate boundaries of the environmental assessment and to screen potential adverse environmental and social issues. The consultation will also receive feedback on the expected environmental and social issues related to the project impact and suggested mitigation measures. The stakeholders will include the primary stakeholder (those directly affected by the intervention) and secondary stakeholders (those indirectly affected and those who have an interest in the project, especially NGOs and Government departments in Islamabad). The consultant will document the proceedings of the consultation along with the list of participants and photographs.

Identification of Environmental Impacts of Transmission Lines: The consultant will identify potential environmental issues of transmission lines in terms of their nature, magnitude, extent and location, and timing and duration. These impacts may relate to the project design stage, construction stage and/or the project operation and decommissioning stage. Based on impact prediction methods and as the result of public consultations, the consultants will screen adverse environmental impacts for inclusion in mitigation measures and environmental management plan.

Mitigation measures: The consultant will propose appropriate mitigation measures for the adverse environmental impacts. These measures could base on exploring the ways to achieve the project objectives by alternative ways, proposing changes in the project design (size of the right of way / weayleave size including height of the power line towers, siting of facilities), through improved monitoring, and management practices (storage of construction materials, labor camps, waste disposal, disposal of construction debris etc.)

Environmental Management & Monitoring Plan (EMMP) The consultant will describe comprehensive environmental management and monitoring plan to ensure the adequacy and effectiveness of the proposed management by clearly identifying the roles and responsibilities of the contractor, supervisory consultant and the client. The consultants will also elaborate on the monitoring mechanism and the reporting frequency. The consultant will prepare the cost for the proposed EMMP for its inclusion in the project cost. The Consultant will also develop environment performance indicators to monitor, audit, evaluate and supervise negative and positive project environmental impacts. The Consultant will also suggest monitoring, auditing and evaluation tools and formats of a monitoring plan including frequency

and methodology of monitoring as well as allocate institutional responsibility and costs.

E. Required Qualification and Experience:

The consultant should have Master’s Degree in Environmental Sciences or related subjects and have 10 years of overall experience in environmental impact assessment studies and 5 years of specific experience in environmental assessment of heavy transmission lines/power sector projects.

F. Selection Criteria: The Consultant will be selected as per following criteria and minimum required score for technically qualifying is 70%.

Technical Scoring = 80 %
 Financial Scoring = 20 %

The detailed criteria of scoring is given below:

Sr. No.	Particulars	Weightage (%)
1	General Qualifications and Experience	15
2	Project Specific Experience.	50
3	Experience with Donor/International Agencies (i.e. JICA, UN, ADB, WB, USAID, IUCN, WWF etc.).	15
4	Financial Proposal	20
Total		100%

G. Financial Proposal

The financial proposal should not exceed the maximum limit of PKR 4.0 Million inclusive of all applicable taxes. Financial quotation would be lump-sum and payment format for the consultant would be as followings:

SR. No.	Particulars	Payment
1	Mobilization Advance.	20%
2	Submission of Draft EIA report to Environment and Social Impact Cell of NTDC for review and Comments.	50%
3	Submission of Final Report to EPAs	30%
Total		100%

H. Time Schedule:

Total time period of this consultancy service will be three (03) months after mobilization date of the consultant.

I. Deliverables/Responsibilities:

The Consultant will prepare EIA report of the project meeting the requirements of JICA, other funding agencies (ADB, WB etc.) as well as of Government of Pakistan. The other responsibilities and requirements include but not limited to the followings:

- The Consultant will be responsible for obtaining NOC from respective EPAs (EPA KPK and EPA Pak-Islamabad).
- Consultant will also be responsible for presentation in the Public Hearing to be conducted by EPA KPK and Pak-EPA Islamabad.
- Consultant will present the EIA report in all meetings (i.e. Expert committee meetings, Final Environmental Approval Committee meetings etc.) arranged by both the EPAs.
- The deliverables will include 21 (Twenty one) hard copies and 04 (four) soft copies of EIA report.

J. CV Format

1. Proposed Position:
2. Name of Expert:
3. Date of Birth:
4. CNIC/Passport No.
5. Complete Address: (Address, Contact Number, Email etc.)
6. Academic Qualifications: Trainings/Workshops:
7. Countries of work Experience:
8. Languages: Speaking Reading Writing
9. Employment Record
Name of Assignment or Project:
Employer:
Client and Funding Source:
Time Period:
Location:
Main Project Features:
Position Held:
Activities Performed:

Continue -----

10. Certification

I, the undersigned, certify to the best of my knowledge and belief that:

- (i) This CV correctly describes my qualifications and my experience;
- (ii) I am not employed by the Executing / Implementing Agency.
- (iii) I am committed to undertake the assignment within the validity of Proposal;
- (iv) I am not sanctioned (ineligible for engagement) by any funding agency.

I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Signature

Date: