# Terms of Reference of the Project Management Consultant (PMC) for the Construction of Electricity Transmission Line and Substations in Tamga and Karakol, Issyk-Kul Region, Kyrgyz Republic

1. **Background**

The Kyrgyz Republic is implementing a strategic energy sector investment to strengthen its national grid infrastructure. Approximately 50% of the country’s generation assets are past their useful lifespan, and transmission/distribution losses are estimated at 6% and 12% respectively. To address these challenges, the Government of the Kyrgyz Republic has secured financing from the Islamic Development Bank (IsDB) amounting to USD 58.25 million, with an additional USD 2 million in counterpart funding.

The project includes the construction of two high-voltage substations in Karakol and Tamga, and approximately 95 km of overhead transmission lines (80 km at 220 kV and 15 km at 110 kV). These upgrades are expected to reduce technical losses by up to 30% and enhance voltage stability across the Issyk-Kul region, benefiting over 300,000 residents and key economic sectors such as tourism, agriculture, and mining.

The National Electrical Grid of Kyrgyzstan (NEGK), as Executing Agency, will contract a qualified Project Management Consultant (PMC) to support project delivery through two main phases: procurement support and construction supervision.

This Terms of Reference is issued for the purpose of soliciting Expressions of Interest (EOI) from qualified consulting firms. A detailed Request for Proposals (RfP), including the full scope of services and evaluation criteria, will be provided only to shortlisted firms in accordance with IsDB procurement procedures.

1. **Objectives of the Assignment**

The PMC will be selected in accordance with the IsDB’s Guidelines for the Procurement of Consultant Services (April 2019 edition, revised 2023) under the Quality- and Cost-Based Selection (QCBS) method.

The primary objective of this assignment is to assist the NEGK in effectively executing the project “Construction of Electricity Transmission Line and Substations in Tamga and Karakol,” which is financed by the IsDB.

The PMC will serve as the Owner’s Engineer, providing comprehensive support throughout the two phases of implementation:

Phase 1 Design Review and Procurement Support: The PMC will review existing technical documentation and support NEGK in preparing, finalizing, and executing procurement packages for substations and transmission lines. This process will adhere strictly to the IsDB procurement guidelines (April 2019 edition, revised February 2023).

Phase 2 Construction Supervision and Contract Administration: The PMC will supervise the execution of civil works, ensuring compliance with design and quality standards. Responsibilities will include monitoring environmental and social safeguards, administering FIDIC-based contracts, and supporting overall reporting and project performance management.

**The PMC will also contribute to the following strategic objectives of the project:**

* Facilitate institutional capacity development within NEGK and the PMU including structured knowledge transfer on procurement, safeguards, contract supervision, and results-based project management.
* Ensure the infrastructure's timely, cost-effective, and quality-compliant delivery works by international standards.
* Assist NEGK in managing environmental and social risks while maintaining robust stakeholder engagement practices throughout the implementation process.

**Key Expected Outcomes:**

* Construction and commissioning of high-voltage substations in Karakol and Tamga.
* Completion of approximately 95 kilometers of overhead transmission lines (220 and 110 kV).
* A reduction of technical power losses by up to 30% in the Issyk-Kul region.
* Enhanced voltage stability and energy reliability for over 300,000 residents, impacting critical sectors such as mining, tourism, and agriculture.
* Establish a replicable model for future regional grid expansion and energy infrastructure modernization.
1. **Scope of Services**

The PMC is tasked with facilitating the project’s implementation through two primary phases: design and procurement support, as well as construction supervision, contract management, and cross-cutting thematic areas such as safeguards, stakeholder engagement, and capacity building. The PMC will ensure a results-oriented, transparent, and accountable process in close collaboration with the NEGK, the PMU and the IsDB.

**Phase 1: Design Review and Procurement Support**

The PMC will review the existing feasibility study, front-end engineering design (FEED), environmental documentation, and technical specifications. Furthermore, the PMC will prepare and finalize tender documents for the following:

1. Lot 1: Substations (Karakol and Tamga)
2. Lot 2: Overhead Transmission Lines (220 kV and 110 kV)

The PMC will assist NEGK in managing the procurement process, which includes prequalification, preparation and issuance of bidding documents, clarifications, and organization of pre-bid meetings or site visits. The technical and financial bid evaluation will also offer assistance, culminating in preparing contract award recommendations. A Project Implementation Manual (PIM) will also be developed, outlining roles, timelines, safeguards, disbursement, and reporting procedures. All procurement activities will comply with the IsDB Procurement Guidelines (April 2019 edition, revised February 2023), incorporating standard bidding documents.

**Phase 2: Construction Supervision and Contract Administration**

The PMC will act as the Engineer by FIDIC or equivalent contract conditions. Oversight of construction works will ensure adherence to approved designs, technical specifications, timelines, and safety standards. The PMC will certify interim and final payment certificates and verify contractor performance against established contract milestones. Monitoring of implementation schedules will utilize critical path methods (e.g., Primavera/MS Project). The management of contract variations, claims, and disputes will be performed with an emphasis on documentation and traceability. A contract management plan (CMP) will be prepared and regularly updated for each package. A centralized correspondence and issue-tracking system will be maintained and accessible to NEGK and IsDB.

**Environmental and Social Safeguards**

The PMC will oversee the execution of the Environmental and Social Management Plan (ESMP), including implementing biodiversity protection measures consistent with international best practices and national regulations. Regular site inspections will be conducted with environmental authorities and PMU staff. A Grievance Redress Mechanism (GRM) register will be maintained, ensuring that community concerns are documented and resolved appropriately.

**Stakeholder Engagement and Capacity Building**

The PMC will facilitate quarterly stakeholder consultations with local authorities, community representatives, and civil society, ensuring that feedback and responses are thoroughly documented. Structured capacity building and on-the-job training will be provided to NEGK and PMU staff in relevant areas, including:

* FIDIC contract administration
* Environmental and social safeguards
* Procurement procedures
* Project monitoring and reporting tools
1. **Key Experts and Qualifications**

The PMC shall deploy a qualified and experienced team to support the implementation of the project. The team must demonstrate extensive expertise in electricity transmission and substation infrastructure, with a strong track record in managing MDB-financed projects in mountainous or remote regions.

**Fluency in English is mandatory for all international experts and working knowledge of english is expected from key local experts.**

Preference will be given to local experts with appropriate qualifications and relevant experience. The composition below is **indicative** and may be adjusted as necessary in agreement with the Client and the project context.

Key International Experts

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| **Position** | **Minimum Qualifications** |
| **Team Leader / Project Manager** | Master’s in engineering or project management; 15+ years of relevant experience; PMP certification preferred; strong leadership and communication skills. |
| **Senior Transmission Engineer** | Degree in electrical engineering; 12+ years of experience in 110–220 kV overhead transmission line (OHTL) projects, preferably in challenging terrain. |
| **Senior Substation Engineer** | Degree in power systems engineering; 10+ years in HV substation design, SCADA integration, and protection systems. |
| **Procurement & Contract Specialist** | Degree in engineering, economics, or related field; 8+ years in MDB procurement, FIDIC-based contract administration, and international best practices. |
| **Protection & Control Engineer**  | Degree in electrical engineering; 10+ years in protection, relay, and automation (РЗА); experience with IEC 61850, SCADA systems. |

Key Local Experts

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| **Position** | **Minimum Qualifications** |
| **Deputy Team Leader** | Degree in engineering; 12+ years of infrastructure project management; experience coordinating with national institutions; fluent in Russian/Kyrgyz. |
| **Transmission Engineer** | Degree in electrical engineering; 8+ years in 110–220 kV OHTL projects; understanding of local codes and terrain challenges. |
| **Substation Engineer** | Degree in power systems; 8+ years in HV substation implementation and SCADA integration; familiarity with local utilities and standards. |
| **Civil/Structural Engineer** | Degree in civil or structural engineering; 10+ years in power sector projects; experience in seismic zone design preferred. |
| **Safeguards Specialist** | Degree in environmental or social sciences; 8+ years in ESMP preparation, stakeholder engagement, and resettlement frameworks. |
| **Protection & Control Engineer (РЗА)** | As above, with practical experience working with national utility protection schemes and relevant equipment. |
| **Design Engineer** | Degree in electrical or civil engineering; 8+ years in OHTL/substation design; proficient in AutoCAD, ETAP, or equivalent tools. |

1. **Duration and Phasing**

The consultancy assignment is projected to last forty-eight (48) months and encompass all phases from procurement support to the final closure of the project.

**Phase 1 Procurement and Tendering Support:**

This phase will last up to six months from the contract's effective date. It will involve finalizing tender documents, assisting the NEGK during the bidding and evaluation processes, and awarding works contracts.

**Phase 2 Construction Supervision and Project Management:**

This phase will encompass a total of forty-two months, which includes:

* Approximately thirty-six months dedicated to the active construction, installation, and commissioning of transmission lines and substations.
* Up to six months allocated for demobilization, final reporting, contractor performance assessment, and support to the NEGK in ensuring project closure and readiness for audit.

This assignment is anticipated to commence in the latter half of 2025, following the signing of the consultancy contract and the initial mobilization phase.

1. **Deliverables and Reporting**

The PMC shall report directly to the PMU of the NEGK and will ensure close coordination with the IsDB. All formal reports must be submitted in editable formats, such as Microsoft Word and Excel, and finalized PDF versions. When necessary for domestic purposes, Russian translations shall be provided.

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| Report | Description | Frequency |
| Inception Report | Workplan, team mobilization, risk map | Once, month 1 |
| Monthly Progress | Construction, issues, schedule, safeguards | Monthly during construction |
| Quarterly Reports | Consolidated performance, disbursements | Quarterly |
| ESMP Reports | Compliance updates, incidents | Semi-annually |
| Phase Completion | Summary of each major milestone | End of each phase |
| Stakeholder Report | Community feedback, GRM status | Annually |
| Final Completion Report | Evaluation of outcomes and recommendations | Once, at project closure |
| Ad-hoc Reports | Technical memos, claims analysis, etc. | As required |

1. **Coordination and Communication**

The PMC will report directly to NEGK’s PMU and coordinate closely with IsDB. Reports shall be submitted in English and translated into Russian upon request. Participation in joint field missions and PIASRs is mandatory. A shared digital correspondence and document tracking system shall be maintained.

1. **Final Statement**

Each proposed expert must have a thorough understanding of energy infrastructure development and compliance with MDB standards.

This ToR aims to attract a PMC that combines technical expertise with a commitment to sustainability, accountability, and capacity-building to support Kyrgyzstan’s long-term energy development goals.