

REQUEST FOR EXPRESSIONS OF INTEREST (CONSULTING SERVICES – INDIVIDUAL CONSULTANT SELECTION)

REPUBLIC OF LEBANON, LITANI RIVER AUTHORITY (LRA)
Lebanon Renewable Energy and System Reinforcement Project (P180501)
Loan No.: IBRD-LB-9731

**Assignment Title: DAM ENGINEERING EXPERT AND CHAIRPERSON
(DSPOE)**

Reference No. (as per Procurement Plan): LB-LRA-513065-CS-INDV

1. BACKGROUND

The Ministry of Energy and Water (MOEW), through the Electricité du Liban (EDL) and the Litani River Authority (LRA), is implementing the Lebanon Renewable Energy and System Reinforcement Project (P180501), funded by the International Bank for Reconstruction and Development (IBRD).

The project aims to strengthen Lebanon's electricity infrastructure through grid modernization, hydropower rehabilitation, and improved sector governance. Within this framework, the LRA is responsible for **Component 2.2: Rehabilitation of the three Hydropower Plants (ABDELAL, AWALI & JOUN) and works to improve QARAOUN Dam Safety.**

2. OBJECTIVE OF THE ASSIGNMENT

The Client (LRA) intends to appoint a **Dam Safety Panel of Experts (DSPOE)** for the Project **to advise on dam safety assessment for Qaraoun dam**, and other technical issues. who will be directly contracted by the LRA on a needs-driven basis.

The general task of the panel is to review all relevant design, engineering, construction and dam safety aspects. The members of DSPOE will be selected by the Client based on the required skill-mix. The members will constitute a group of high-level, internationally-recognized professionals.

**These Terms of Reference (TOR) address the specific scope of work for the
Dam Engineering Expert and Chair of the Panel of experts**

3. SCOPE OF WORK

The scope of work of the **Dam Engineering Expert** will include the following main tasks.

- Review of design criteria adopted by the relevant contractors.
- Assessment of dam safety and recommendations for potential improvements/optimizations.
- Review of the Project rehabilitation schedule and identification of potential critical activities / sources of delay.
- Review of risk analysis regarding dam safety during operation, performed by the Contractor and/or Consultants, including the Potential Failure Mode Analysis (PFMA) and dam break analysis.

- Review of dam monitoring design including type of instruments, number of instruments, location of instruments, adequacy of measurement range, cabling, monitoring software, monitoring data storage.
- Review of adequacy of quality assurance system to ensure that the constructed civil works comply with the Employer's requirements.
- Review of dam break flooding simulation and mapping for EPP.
- Recommendation of additional actions and measures to ensure the safety of the Project during rehabilitation and operation.
- Review and advise on the preparation/update, adequacy and implementation of the Construction Supervision and Quality Assurance Plan (CSQAP), Instrumentation Plan (IP), Operation and Maintenance Plan (O&MP), and Emergency Preparedness Plan (EPP)), in line with GPN timing: CSQAP at appraisal for substantial remedial works; IP before tendering; O&MP finalized ≥ 6 months before initial filling; EPP finalized ≥ 1 year before initial filling (or as agreed for existing dams).
- Review and advise on the reservoir refilling/commissioning plan; oversee readiness reviews prior to re-impoundment (including EPP/O&MP and instrumentation readiness), and monitor behavior during refilling.
- Review the adequacy of the O&M mechanism including dam safety management system in place prior to the reservoir refilling/commissioning.
- Coordinating with other panel members for fulfilling the assigned tasks.
- Participation in selected meetings organized by the Client.
- Preparation of chapters related to the discipline in the POE reports.
- Preparation of technical notes and reports.
- Sharing of knowledge with the Client.

The **Chairperson's** main responsibilities would include the following.

- Lead the development of a Panel Charter during the first mission, defining operating procedures, communication and reporting protocols, handling of dissenting opinions, meeting cadence through design, construction and first filling or refilling/commissioning, and conflict-of-interest provisions, consistent with ESS4 Annex 1 and the GPN on Dam Safety.
- Leading the review of various issues under Panel's review.
- Coordination activities and communication of DSPOE inputs, including consolidation of all panel members' inputs into a single DSPOE mission report after each meeting; ensure any significant dissenting opinions are documented alongside the Panel's majority view and final recommendation. Provide the Borrower with the signed report and copy the World Bank.
- Organizing and chairing periodic DSPOE meetings, including elaboration of minutes of meetings.
- Coordination with the Client on the inputs required from any additional experts.

4- Experience and Qualification Requirements

The Dam Engineering Expert should meet the following qualification and experience requirements.

a. Background:

- Master's degree in civil engineering, or related fields.
- Fluent in English (speaking and writing).

b. General experience:

- 30 years of relevant professional experience **in dam engineering**.
- Vast experience in leading teams of international experts in various technical disciplines of dam design and rehabilitation .
- Excellent report writing skills and oral presentation skills.
- At least two (2) previous experiences as a DSPOE member on a dam project.

c. Specific experience:

- At least two (2) projects with CFRD dams with height of at least 60 meters.
- At least three (3) projects involving rockfill or concrete high-hazard dams as defined by ICOLD/USACE/FERC or equivalent national standards.
- Experience of technical coordination and interfaces management on at least three (3) hydropower projects of more than 200 MW installed power.

5. DURATION OF ASSIGNMENT

The assignment is expected to cover the entire project implementation period, estimated at three years. **The Dam Engineering Expert and Chairperson (DSPOE)** will provide services on a needs-driven basis, in accordance with the Terms of Reference (TOR).

The attention of interested Consultants is drawn to Section III, paragraphs **3.13, 3.15, and 3.16** of the World Bank's **Procurement Regulations for IPF Borrowers** (Feb. 2025), which set forth the World Bank's policy on conflict of interest.

A Consultant will be selected in accordance with the **Individual Consultant Selection** method set out in the Procurement Regulations (World Bank's **Procurement Regulations for IPF Borrowers** (Feb. 2025)).

6- SUBMISSION OF EXPRESSION OF INTEREST

Interested individual consultants should submit their **Expression of Interest (EOI)** **including:**

- **Updated CV** demonstrating relevant experience and qualifications.
- **Cover letter** outlining suitability for the assignment.
- **At least three references** with contact details.

Expressions of interest must be delivered in a written form to the address below (in person, or by E-mail) no later than Mars 26, 2026, at 10:00 a.m. (Beirut Time).

Litani River Authority

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