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1. **INTRODUCTION**

1. The primary objective of the “Renewable Energy Loan” (REL), which is made available to Türkiye Kalkınma Bankası (TKB) and Türkiye Sinai Kalkınma Bankası (TSKB) through the Turkish Treasury which will be the borrower from the International Bank for Reconstruction and Development (IBRD), is to provide investment finance to private enterprises (Beneficiary Enterprises) engaged in investments for generation of electricity based on renewable resources. For the purposes of the REL facility the definition of electricity generation facilities that would qualify is as follows; “The generation facilities that would qualify for measures for encouraging the utilization of renewable and domestic energy resources consist of those based on wind, solar, geothermal, wave, tide, biomass, biogas, hydrogen energy and low impact hydroelectric generation facilities”. Low impact hydroelectric facilities comprise of those (i) with an installed capacity of less than or equal to 50 MW, (ii) those with an reservoir area of below 15 sq.km and (iii) those with reservoir storage volume of less than 100 million cubic meters.

   Turkish Treasury, as the Borrower of the IBRD Loan, will on-lend the REL to TKB and TSKB. The on-lending will be carried out by means of subsidiary loan agreement entered into by Undersecretariat of the Turkish Treasury with TKB and TSKB (Participating Financial Intermediaries--PFIs). On-lending terms and conditions are detailed in Section III of this manual. The PFIs in turn will make sub-loans/ financial leases to Beneficiary Enterprises satisfying a set of eligibility criteria, according to agreed sub-loan/ financial lease terms and conditions (Section IV) and safeguard review procedures (VI) and procurement (Section VII) guidelines.

2. The "Operational Manual" presented here is specifically for the use of the TKB. The purpose of this manual is to outline the decision-making process of TKB during the implementation of the REL. In addition to this process (further detailed in Section II of this manual), specific duties and responsibilities of TKB are foreseen to ensure the successful implementation of the project. These responsibilities relate to sub-project/sub-loan/ financial lease evaluation procedures, environmental review procedures, applicable procurement procedures and progress reporting requirements.

3. Evaluation of Sub-loan/ Financial Lease Applications/Sub-projects. Evaluation of the sub-loan or financing lease applications and sub-projects submitted by the beneficiary enterprises for financing under the REL will be the responsibility of the TKB. Section V of this manual contains a guideline of Sub-loan or Financing Lease /sub-project Evaluation.

4. Sub-Project Safeguard Review. TKB will be responsible for reviewing the environmental classification of beneficiary enterprises/sub-projects, and for ensuring that each sub-loan or financing lease /sub-project proposal includes an evaluation of its environmental impact and clearance documentation from the Local Environment Authority (LEA).

5. Verification of the Procurement Process. The Beneficiary Enterprises have to conduct the actual procurement of goods, civil works and consultancy services to be financed under REL sub-loans or financing lease according to the IBRD’s Procurement Guidelines. A summary of the procurement process is presented in Section VII of this manual.

6. Reporting of Information to IBRD
TKB will be responsible for the preparation and diffusion of data regarding the utilization of the loan at regular intervals in a format to be agreed with IBRD.
II. CREDIT OPERATIONS SEQUENCE

Beneficiary Enterprises → Sub-loan/financing lease Agreements → Participating Financial Institutions (TKB) → Undesresecretariat of Treasury → REL Agreement

Sub-loan or Financing Lease Summary Reporting

First Two sub-loans or Financing Lease requiring Prior review

IBRD
III. SUBSIDIARY LOAN AGREEMENT (Loan Agreement between Undersecretariat of Treasury and TKB)

III.1. Subsidiary Loan Terms and Conditions

A. TERMS

1) The principal amount to be on-lended out of the proceeds of the Loan to TKB under its respective Subsidiary Loan Agreement shall be denominated in US Dollars;

2) The each Disbursed Amount from the subsidiary loan shall be repaid in semiannual instalments payable on each March 15th and September 15th, the first such instalment to be payable on the ninth (9th) Interest Payment Date following the Maturity Fixing Date for said Disbursed Amount and the last such instalment to be payable on the twenty-fourth (24th) Interest Payment Date following the Maturity Fixing Date for said Disbursed Amount. Each instalment except for the last one shall be equal to one-sixteenth (1/16) of said Disbursed Amount. The last instalment shall be equal to the remaining outstanding amount of said Disbursed Amount.

3) The interest rate applicable to the on-lending loans shall be the same rate applied by IBRD to Treasury.

4) The REL facility shall be allocated on a quota basis and TKB shall be allocated USD 50. Million. The loan will be utilized in the form of a Fixed Spread Loan (FSL) facility with repayment schedule linked to actual disbursements. TKB will be charged a commitment fee at a rate of 0.85% (minus any waiver) per annum on the undisbursed amounts for the first four years of the loan life and 0.75% (minus any waiver) thereafter.

5) TKB shall pay the Borrower a front-end fee in an amount equal to 1.00% of the amount of its respective Subsidiary Loan.

6) The Borrower shall charge TKB an additional fee pursuant to Law No.4749.

7) The right of TKB to use the proceeds of its on-lending loan shall be:

   (a) suspended upon failure of TKB to perform any of its obligations under its Subsidiary Loan Agreement or to continue to be in compliance with all legal and regulatory requirements applicable to its operations and;

   (b) Terminated if such right shall have been suspended pursuant to the above paragraph for a continuous period of sixty (60) days.
B. CONDITIONS

1) TKB shall undertake to:

(a) carry out all activities under its Subsidiary Loan Agreement and conduct its operations and affairs in accordance with appropriate financial standards and practices, with qualified management and staff in adequate numbers and in conformity with the investment and lending policies and procedures referred to in this Operational Manual and provide, promptly as needed, the funds, facilities, services and other resources required for the purpose;

(b) (i) make Renewable Energy Sub-loans or Financing Leases to Beneficiary Enterprises on the terms and conditions set forth in this Operational Manual including, without limitation, the terms and conditions set forth in the Section IV.1;

(ii) exercise its rights in relation to each such Renewable Energy Sub-loan or Financing Lease in such a manner as to protect its interests and the interests of the Undersecretariat of the Turkish Treasury and the IBRD, comply with its obligations under its Subsidiary Loan Agreement and achieve the purposes of the REL;

(iii) not assign, amend, abrogate or waive any of its agreements providing for Sub-loan/financing leases, or any provision thereof, without the prior approval of IBRD.

(iv) appraise beneficiary enterprises/sub-projects and supervise, monitor and report on the sub-loan or financing lease utilization and the carrying out by the Beneficiary Enterprises of sub-projects, in accordance with the procedures set out in this Operational Manual.

(c) (i) exchange views with and furnish all such information to UT, as may be reasonably requested by UT, with regard to the progress of its activities under the REL, the performance of its obligations under its respective Subsidiary Loan Agreement, and other matters relating to the purposes of the REL;

(ii) promptly inform UT of any condition which interferes or threatens to interfere with the progress of its activities under its respective Subsidiary Loan Agreement;

(d) (i) maintain records and accounts adequate to reflect, in accordance with sound accounting practices, its operations and financial condition;

(ii) furnish to UT such information concerning said records and accounts as UT shall from time to time reasonably request; and

(e) assume the credit risk of each sub-loan/financing lease.

2) TKB will be responsible for monitoring the beneficiary enterprises' compliance with the IBRD's procurement rules for the procurement of goods, civil works and consultancy services under REL sub-loan/financing leases, the IBRD's environmental assessment requirements and all applicable Turkish environmental legislation/regulations.
III.2. Subsidiary Loan Agreement – Process Flow

1. TKB and UT sign subsidiary loan agreement (SLA), based on a draft agreed with IBRD

4. UT informs TKB of SLA effectiveness

2. UT sends signed SLA together with proper legal opinions, issued by both parties, to IBRD for “no objection”

3. Following a satisfactory review of the SLA, IBRD issues its no objection

Undersecretariat of Treasury

IBRD
IV. SUB-LOANS or FINANCING LEASE (Loan Agreements between PFIs and Beneficiary Enterprises)

IV.1 Sub-Loan or Financing Lease Terms and Conditions

The following terms and conditions will apply:

For Beneficiary:

- Beneficiary Enterprises has to be a Joint Stock Company.
- Private ownership (defined as more than 50 percent private ownership);
- Investor (Beneficiary Enterprises), with an eligible renewable energy project qualifying under the definition of “generation facilities based on renewable sources” as defined in EMRA’s Licensing Regulation;
- Maximum debt/equity ratio of 75:25 after completion of the investment.
- The documents showing that the beneficiary enterprise is negotiating with other Export Credit Agencies, Suppliers and Banks for the financing of the remaining total project cost.
- Beneficiary enterprise after receipt of the sub-loan or financing lease should generate enough cash during the pay-back period to maintain a three year moving average debt service coverage ratio of at least 1.2 : 1;
- Beneficiary enterprise who submit proposals should have fulfilled all necessary licensing requirements of the Electricity Market Regulatory Authority (EMRA) as well as conditional rights on resource use and land use.
- Certification from the relevant local or national authorities that the proposed beneficiary enterprise/sub-project meets all environmental laws and regulations in force in Turkey, as well as the IBRD policy on environmental assessment.
- The voluntary resettlement agreement certified by notary public will be submitted to TKB.

For Eligible-projects:

- Sub-project must be target towards the generation of electricity based on renewable energy resources.
- Low impact hydroelectric projects have to fulfill the conditions of (i) having an installed capacity of less than or equal to 50MW, (ii) having a reservoir area of below 15 sq.km and (iii) having a reservoir storage volume of less than 100 million cubic meters.
- Sub-projects must comply with the definition of renewable energy in EMRA’s licensing regulations.
- Maximum debt/equity ratio of 75:25 after completion of the investment.
- Sub-projects involving investments should generate a financial rate of return of at least 10 percent.
- Compliance with the IBRD’s procurement procedures for the procurement of goods, civil works and consultants’ services to be financed under REL sub-loan/financing leases;
- Sub-projects located on the following river basins shall be eligible for finance; Susurluk, North Aegean, Gediz, Kızılırmak, Middle Anatolia, Eastern Mediterranean, Seyhan, Ceyhan and Eastern Black Sea.
For sub-loans and Financing Lease:

- The principal amount of each Sub-Loan or Financing Lease or the aggregate principal amount under multiple Sub-loans and Financing Leases made to any Sub-project shall not exceed $20,000,000;
- The aggregate principal amount under multiple Sub-Loans and Financing Leases, including all sub-loans and financing leases by both PFI, made to any Beneficiary Enterprise and its affiliates shall not exceed $40,000,000;
- Each Sub-Loan or the Financing Lease or the aggregate principal amount under multiple Sub-Loans and Financing Leases made to any Sub-project shall not exceed fifty (50%) of the total cost of such Sub-project.
- Sub-loans or Financing Leases will be made for the financing of goods, civil works and consultants' services for investment purposes;
- Sub-loans or Financing leases will be evaluated in accordance with the TKB's normal project evaluation guidelines and the Guidelines for Sub-loan/Sub-Project Evaluation specified in Section V of this Operational Manual;
- Each Financing Lease shall be made on terms and conditions, including those relating to the schedule of rental payments and other charges determined in accordance with TKB's investment and financial leasing policies and practices.
- Sub-loans or financing leases must be denominated in US$; the foreign exchange risk will be borne by the beneficiary enterprise;
- The beneficiary enterprise shall be charged a front-end fee in an amount equal to one percent (1%) of the amount of its respective sub loan or financing lease.
- The beneficiary enterprise shall be charged a commitment fee at a rate of 0.85 percent per annum on the principal amount of the loan or financing lease not withdrawn.
- Sub-loan or financing lease pricing and maturity will be determined by the TKB based on the needs of the particular sub-project being financed, with the provision that the interest rate must at a minimum be equal to the costs of REL funds to the TKB plus a realistic credit risk margin.
- For the first two sub-loans or financing lease for TKB prior review by the IBRD will be required;
- All sub-loans or financing leases can be subject to post review by the IBRD in order to verify compliance with the on-lending and sub-loan agreement terms.
- No expenditures for REL Sub-project shall be eligible for financing out of the proceeds of the REL if such expenditures shall have been made earlier than 30.06.2003.
- Renewable Energy Sub-loans or financing leases shall be made on terms whereby the TKB shall obtain, from the Beneficiary Enterprises through appropriate legal means (an REL Sub-loan/financing lease Agreement), rights adequate to protect its interests and those of the Turkish Treasury and the IBRD, including the right to:
  - require the Beneficiary Enterprises to carry out and operate the facilities financed under the REL Sub-project with due diligence and efficiency and in accordance with sound technical, financial and managerial standards and to maintain adequate records;
  - require: (i) that the goods, civil works and the consultants' services to be financed out of the proceeds of the sub-loan/financing lease shall be procured in accordance with the provisions of Section VII of this Operational Manual; and (ii) that such goods, civil works and consultants' services shall be used exclusively in the carrying out of approved REL Sub-projects;
inspect, by itself or jointly with representatives of IBRD, if IBRD shall so request, such goods and the sites, civil works, plants and construction included in the REL Sub-project, the operation thereof, and any relevant records and documents;

require that: (i) the Beneficiary Enterprises shall take out and maintain with responsible insurers such insurance, against such risks and in such amounts, as shall be consistent with sound business practice; and (ii) without any limitation upon the foregoing, such insurance shall cover hazards incident to the acquisition, transportation and delivery of machinery and the civil works financed out of the proceeds of the sub-loan/financing lease to the place of use or installation, any indemnity thereunder to be made payable in a currency freely usable by Beneficiary Enterprise to replace or repair such goods, civil works and consultancy services;

obtain all such information as the IBRD shall reasonably request relating to the foregoing and to the administration, operations and financial condition of the Beneficiary Enterprise and to the benefits to be derived from the REL Sub-project; and

suspend or terminate the right of the Beneficiary Enterprise to use the proceeds of the sub-loan or financing lease upon failure by such enterprise to perform its obligations under its REL Sub-loan or Financing Lease Agreement.

IV.2 Sub-Loan or Financing Lease Documentation

For all Sub-loans or Financing lease, a complete package comprising of;

- A project appraisal report including description of the expenditures to be financed out of the proceeds of the sub-loan or financing lease;
- A description of the procurement methods used or to be used by the Beneficiary Enterprise for the expenditures to be financed under the proposed sub-loan or financing lease;
- Evidence of compliance with all requirements specified by Turkish environmental legislation and regulation and the environmental review procedures specified in Section VI of this Operational Manual.
- A copy of the sub-loan or financing lease agreement signed or to be signed with the Beneficiary Enterprise; and
- Such other information as IBRD shall reasonably request,

shall be prepared and kept by TKB.

IV.3 Sub-Loan or Financing Lease Review

- For the first two sub-loans or Financing Leases made by TKB, IBRD will carry out a prior review of each package to determine its compliance with all applicable sub-loan/financing lease, beneficiary enterprise and sub-project requirements and inform TKB in writing of its acceptance of the package or of any remedial action required, as the case may be.

- For subsequent sub-loans or financing leases approval by TKB’s Board of Directors will suffice for loan utilization. TKB will inform IBRD about the project and funds committed at regular intervals in the format given in Annex IV.A. All underlying documentation pertaining to sub-loans or financing leases will be maintained by TKB for
a period of 3 years from the date on which the sub-loan or financing lease was disbursed and will be made available to IBRD upon request.

- TKB has the full responsibility vis-a-vis IBRD to ensure that the terms of the REL Sub-project and all expenditures financed with the proceeds of the sub-loan or financing lease are in compliance with the requirements imposed by this Operational Manual.

IV.4. Usage of Sub-loan/Financial Lease Reflows

In case of reflows TKB shall re-employ the funds in consistence with her Articles of Association.
IV.4 Sub-Loan or Financing Lease Process Flow

PROMOTERS Undertaking REL Projects
(BENEFICIARY ENTERPRISES)

Sub-Loan or Financing Lease Applications

TKB

No objection Sub-loan/financing lease Number

First Two Sub-Loans or Financing Leases

IBRD
Appendix IV.A

REL SUMMARY SUB-LOAN or FINANCING LEASE DATA FOR PROJECTS SUBMITTED BY TKB

Name of beneficiary enterprises: .................................................................

Location of the beneficiary enterprise: ........................................................

Sub-loan/Financing Lease amount: ...............................................................

Terms of the sub-loan/Financing Lease: ......................................................
(maturity, grace:period, interest rate, repayment terms)

Main shareholders and their % holding: 1. Name...... %...
2. ........... %...

Main type of renewable energy: .................................................................

Details of the sub-project to be financed: ..................................................
..............................................................................................................

Eligibility criteria verification:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beneficiary enterprise' private ownership percentage (50+)</td>
<td></td>
</tr>
<tr>
<td>Beneficiary enterprise's project report (prepared by the PFI)</td>
<td></td>
</tr>
<tr>
<td>Beneficiary enterprise's debt/equity ratio after receipt of the sub-loan/financing lease (not to exceed 75/25)</td>
<td></td>
</tr>
<tr>
<td>Beneficiary enterprise's management and financial capacity to carry out the renewable energy sub-project</td>
<td></td>
</tr>
<tr>
<td>Sub-project's technical, financial &amp; commercial viability</td>
<td></td>
</tr>
<tr>
<td>Beneficiary enterprise's debt service coverage ratio (at least 1.2:1 throughout the term of the sub-loan/financing lease)</td>
<td></td>
</tr>
<tr>
<td>The sub-project's projected financial rate of return (minimum 10%)</td>
<td></td>
</tr>
<tr>
<td>Beneficiary enterprise's insurance coverage</td>
<td></td>
</tr>
<tr>
<td>Security (collateral) for the sub-loan/financing lease</td>
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</table>
List of Procurement Contracts to be financed under the Sub-loan/financing lease & Procurement Method Used:

<table>
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<th>Goods, Civil Works &amp; Services</th>
<th>Cost (US$)</th>
<th>Procurement method</th>
<th>Estimated Date of Contract</th>
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</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Environmental & Resettlement Information:

|                               |            |                    |                           |
|                               |            |                    |                           |

Draft Sub-loan/Financing Lease Agreement Attached: ........................................ Yes/No

Sub-loan/Financing Lease Package Prepared By:

Name: ........................................
Position: .................................
Date: ......................................
Signature: ................................

Sub-loan/Financing Lease Approved by the TKB Credit Committee: ................................ Yes/No
Date of Approval: ..........................

Sub-loan/Financing Lease Approved by the TKB’s Board of Directors: .......................... Yes/No
Date of Approval: ..........................
V. GUIDELINES FOR SUB-LOAN / FINANCING LEASE PROJECT EVALUATION AND SUPPORTING DOCUMENTATION

V.1 Introduction

1. In order to draw down funds under the REL, TKB will enter into sub-loan or financing lease agreements with beneficiary enterprises. The sub-loan or financing lease agreements will be in accordance with the REL sub-loan/financing lease terms and conditions and prudent banking practices. Sub-loans or financing lease will be provided for capital investment expenditures for goods, civil works and consultants’ services.

2. Beneficiary enterprises must be legally incorporated civilian joint stock enterprises with more than 50% percent private ownership. Sub-loans or financing leases will be evaluated in accordance with the TKB’s normal project evaluation procedures, and will include (where applicable) items in the guidelines set out below.

3. The sub-loan or financing lease evaluation carried by TKB for the first two sub-loans will require prior review and no objection by the IBRD. For all other sub-loans or financing lease evaluations and approval by TKB’s Board of Directors will suffice however IBRD may undertake ex-post review.

4. The formats and parameters of the evaluation would vary with the type of project but the substantive issues will be covered as far as possible using these guidelines.

5. The REL Facility is to be used as an investment loan (IL) for investments in plant / equipment, civil works and consultants’ services as a sub-project either within an existing company structure or as a new company in the field of renewable energy. The evaluation for the investment loans would require evaluation of the sub-project and the beneficiary enterprise.

6. The outline and documentation given below are up to the stage of sub-loan/financing lease agreement approval and signature. Additional information and documentation (e.g., copy of the signed sub-loan/financing lease agreement, invoices, bills of lading, LCs, proof of debt service payments made, etc.) will be added to the sub-loan/financing lease files maintained at TKB for each sub-loan/financing lease during the sub-project implementation and sub-loan/financing lease repayment stage.
V.2 Sub-Loan/Financing Lease Sub-Project Evaluation Guidelines

1. Objective of the Proposed Sub-loan/Financing Lease

   • Brief summary the amount of the sub-loan/financing lease, the name of the beneficiary enterprise, and the purposes for which this sub-loan/financing lease is proposed to be used.

2. The Sub-project

   • Description of proposed sub-project facilities, capacities, technology used, projected outputs, location, infrastructure requirements and other input requirements.

3. The Beneficiary enterprise

   • Description of the recent history and scope of operations of borrowing enterprise, nature of business, location(s), plant facilities, work force, production history, constraints, organizational structure (including Board of Directors and senior managers), structure of shareholding, managerial evaluation, credit history, and any key issues / problems of the business or its management.

   • Include supporting documentation like: proof of more than 50 % private ownership, certificate of incorporation, all necessary licenses.

4. Sub-project Costs and Financing Plan

   • Provision of details of sub-project costs by component, with breakdown of foreign and Turkish Lira costs (in constant US$ terms), with appropriate price and physical contingencies, incremental working capital requirements, and interest cost during construction.

   • Inclusion of the bases and assumptions for cost estimates (feasibility studies, budget/supplier quotations, date of base estimates, etc.).

   • Summary of the sources and amounts of financing for the sub-project, and assess their availability and reliability status.

5. Market Analysis

   • Assessment of the potential markets for outputs of the sub-project and the beneficiary enterprise, with projections of future market demand, selling prices, with resulting sales volume.

   • Evaluation of strengths and weaknesses, and comparative advantages and risks of the sub-project and the beneficiary enterprise.
6. **Financial Analysis**

*The Sub-project*
- Analysis of future annual production costs, revenues (based on market analysis) and profits
- Calculation of financial internal rate of return (FIRR) on the investment (using discounted streams of annual cash operating and capital costs and revenues for the life of the sub-project).
- Carry out sensitivity and risk analysis (resulting FIRR with varying assumptions concerning major risk factors affecting revenues and costs).

*The Beneficiary enterprise*
- Analysis of past financial performance of the borrowing enterprise (balance sheets, profit and loss statements, cash flows) with appropriate ratios (debt to equity, current ratio, debt service coverage, dividend pay-outs).
- Analysis and verification of projections of future financial cash flow performance with appropriate ratio analysis including payback period, debt service coverage etc.; and especially confirm that the debt-equity ratio of the beneficiary enterprise after receipt of the sub-loan/financing lease will not exceed 75:25 and the three year moving average debt service coverage ratio will not be less than 1.2:1.

7. **Procurement and Sub-project Management**

- Description of the main packages of goods, civil works and consultants’ services to be procured, with assessment of contracting arrangements, methods of and likely sources of supply.
- Confirmation of the eligibility of the proposed goods, civil works and consultants’ services (e.g. they should have been procured not earlier than 30.06.2003).
- Assessment of the beneficiary enterprise's project management capabilities, nature of organization and responsibilities, use of consultants, etc.

8. **Environmental Aspects**

- Description of any environmental impacts of the sub-project and remedial measures required or envisaged.
- Inclusion of supporting documents like the Environment Management Plan and LEA’s no objection certificates/licenses.
9. **Sub-loan/financing lease Information**

- Description of the proposed US$ amount, terms (maturity, interest rate and fees, repayment schedule) and conditions (actions required) of sub-loan/financing lease.
VI. SAFEGUARD REVIEW PROCEDURES

1. This section summarizes the procedures that TKB shall apply to sub-loans/financing lease to be financed under the World Bank Special Purpose Debt Facility (SPDF) with regard to issues regarding:
   VI.1 Environmental Impact Assessment
   VI.2 Resettlement
   VI.3 Dam Safety

VI.1 Environmental Impact Assessment

2. All sub-loans or financing lease to be financed under the World Bank Special Purpose Debt Facility (SPDF) will be subject to an environmental and resettlement review process by TKB incorporating the procedures described in this section. These procedures and requirements incorporate the Republic of Turkey's regulatory requirements for Environmental Review (Regulation on Environmental Impact Assessment (EIA) published in Official Gazette No: 24777 and dated June 6th, 2002, as supplemented by Article 10 of Environmental Act No: 2872 dated August 9th, 1983) and World Bank policies. In addition Expropriation Law (no: 2942), Resettlement Law (no: 2510), Foundation of General Directorate of Rural Services (no: 3203) and Involuntary Resettlement (World Bank OP/BP 4.12) are taken into consideration.

3. The Environmental Impact Assessment is to be carried out to determine the possible affirmative or negative impacts of projects planned to be realized and to evaluate the precautions to be taken in order to prevent or minimize the negative impacts which may damage the environment by specifying the chosen site and technological alternatives and the supervision and inspection of the implementation of projects.

4. The current Turkish EIA Regulation classifies projects into two categories: (a) projects which have significant potential impacts and require an EIA (see Appendix VI.A), and (b) projects which may have significant potential impacts and require further analysis. For the latter projects, a pre EIA report (see Appendix VI.B) is prepared by the private sponsor and submitted to local authorities (governor) for a determination as to whether or not a full EIA report is required (discussed in detail below). Under current Turkish Regulations projects, which do not fall into these two categories, are not required to take any further action with regards to the environment.
Screening

5. Private sponsor prepares a Project File (See Appendix VI.C for format), which includes a recommendation for the environmental screening category for the subproject, and submits it to TKB. The classifications for the four screening groups are given in Annex 4. Group 1 requires EIA, Group 2 requires pre EIA report; Group 3 projects require no action according to current regulations but will be treated as Group 2 projects for the purposes of financing from the SPDF. Projects which fall under Group 4 are not eligible for financing from the SPDF.

6. The Project File is then sent by the sponsor to the Ministry of Environment which reviews the file and verifies the proposed screening group.

7. If the project is assigned to Group 1 an EIA is required. If the project is assigned to Group 2 a pre EIA report is prepared by the project sponsor and submitted to local authority (governor) for a decision on either “to prepare an EIA” or “no further environmental documentation is required”. For projects assigned to Group 3, Turkish regulations do not require any further environmental documentation. However, for purposes of the SPDF the Ministry of Environment has agreed to subject Group 3 projects to the same procedures as Group 2 projects.

8. Environmental assessment procedures for each of the Groups are presented below.

GROUP 1 PROJECTS (MANDATORY EIA)

9. Ministry of Environment (MoE) forms a committee consisting of, inter alia, university scholars, institutions, expertise institutions, professional labor unions, NGOs, stakeholders, etc. The first duty of the committee is to decide on the date for the initial public consultation. At this consultation committee members, project affected groups, and local environmental authorities have discussions taking into consideration views and concerns of the local people in establishing the scope of the EIA (scoping).

10. Committee sends the list of issues identified in the scoping meeting to the private sponsor for inclusion in the EIA report.

11. About the same time, the MoE informs the private sponsor of the required composition of the Task Team responsible for the preparation of the EIA report.

12. Private sponsor prepares the draft EIA report and submits to the MoE which in turn sends a copy to the committee for their technical assessment. MoE also makes the draft EIA report available to the public and to solicit their views (consultation).

13. The committee upon completion of their review of the EIA and taking into consideration any further issues identified during the public consultation makes a decision on whether all impacts are properly assessed and adequate mitigation measures are included. If the decision is positive, the project is approved to proceed. If the impacts
are determined to be significant and cannot be properly mitigated, a decision to stop further processing is made.

14. MoE then formally adopts the committee decision and then notifies the private sponsor and the public (disclosure).

15. TKB will then review the Environmental Management Plan (EMP) section of the EIA to determine if it accurately reflects all the important issues identified in the EIA. If TKB is satisfied with the EMP it notifies the private sponsor. Additionally, if the EMP includes items (e.g. monitoring) which are identified as the responsibility of local environmental authorities, TKB will request the private sponsor to send the EMP to these local environmental authorities to receive their approval. EMP will be prepared by the private sponsor and submitted to TKB and its format is given in Annex VI.A.

16. Upon approval of the EMP by the local authorities, TKB will insure that the subproject loan agreements include a commitment of the private sponsor to implement the EMP.

GROUP 2 PROJECTS (MANDATORY Pre-EIA)

17. The private sponsor submits his Pre-EIA report (see Appendix VI.B for Format) to the local environmental authorities which evaluate the material for accuracy and completeness.

18. If the local authority is satisfied, a public consultation is conducted by the local governor and private sponsor.

19. After the consultation, the local authority submits the minutes of the meeting and the Pre-EIA report to the MoE, which in turn forms a committee (smaller in composition than the Group 1 committee) for an assessment to determine whether or not an EIA report is required.

20. If the MoE decision requires the private sponsor to prepare an EIA, the procedures subsequently followed are the same as indicated above for the Group 1 subprojects. If the MoE gives a decision that no EIA is required, no further procedures with respect to environmental aspects are required. However even with the "No EIA" required decision, the MoE may still require certain measures be taken to mitigate certain impacts. A simple EMP will be prepared by private sponsor if it is deemed necessary by TKB.
GROUP 3 PROJECTS (NO GOVERNMENT ACTION LEGALLY REQUIRED)

21. Turkish environmental regulations do not require any formal intervention for subprojects in this Group. However, for purposes of the World Bank Renewable Energy Project, the MoE has provisionally agreed to subject Group 3 subprojects to the same procedures as Group 2 subprojects (see above discussion). At the written request of the PFIs and the Ministry of Energy, the MoE has informally agreed to this arrangement. Formal agreement by the MoE regarding this process is required.
VI.2. Resettlement

22. Necessary steps would be undertaken by TKB to ensure that no negative impacts arise from land acquisition or involuntary resettlement. Specifically, EMRA shall not provide a "Public Benefit Document" for renewable energy generation facilities that would lead to the exercise of eminent domain and acquisition of land for any sub-project. There are two possible conditions under which private sponsors may obtain land title/rights to develop sub-projects:

I. Site where the generation facilities are to be constructed belongs to private persons

23. In this case, the following requirements will be reflected in the Legal Agreements between the Bank and TKB. These requirements shall also be included in the legal agreements that TKB enters into with project sponsors:

(a) An agreement by the owner to transfer the title and rights to this land and/or any intangibles related to the land to the private sponsor, will have to be made through an agreement reached freely and certified by a notary public.

(b) All land must be purchased in the open market.

(c) Sub-project sponsors will provide notarized documents attesting to the willing-buyer/willing-seller status of land transactions. Sub-project sponsors will procure all land necessary for the sub-project prior to the sub-loan/financing lease application, and will submit notarized documentation that attests to the "willing buyer - willing seller" status of land transactions.

(d) The TKB will interview landowners to assure that the land transfer is voluntary.

24. The World Bank will review the first two projects prepared to ensure that the land was procured through market mechanisms and that no involuntary resettlement is involved. Subsequently, the Bank would also review yearly with TKB the documentation for land acquisition provided by private sponsors and on a random basis would carry out post review.

II. Site where the generation facilities are to be constructed belongs to Government (represented by a Ministry or Public Authority)

25. In this case the following requirements will be reflected in the Legal Agreements between the Bank and TKB. These requirements shall also be included in the legal agreements that TKB enters into with project sponsors:

(a) Since the EMRA shall not provide a "Public Benefit Document" for renewable energy generation facilities, the exercise of eminent domain and acquisition of land for any sub-project is ruled out. However, transfer of currently held public lands with title/rights to this land and/or any intangibles related to the land, from the government to the sub-project sponsor, may occur under applicable law relating to transfer of public land for projects.
(b) Each FI will conduct an assessment to verify and re-affirm that there are no secondary claims on the Government land that have been transferred to the sub-project sponsors.

26. The World Bank will review the first two projects to ensure that there are no secondary claims on Government land acquired for the project. Subsequently, the Bank would also review yearly with TKB the documentation for land acquisition provided by private sponsors and on a random basis would carry out post review.
VI.3 Dam Safety

30. All sub-loans or financing lease to be financed under the project will be subject to the provisions of the World Bank Operational Policy 4.37 Safety of Dams (Appendix VI.G). TKB will screen all sub-projects to be financed under the loan, to determine whether any contain small dams or large dams in accordance with the definitions of OP 4.37: (a) dams greater than 15 m in height; (b) dams greater than 10 m but less than 15 m in height and having a crest length greater than 500m, or a spillway design discharge of more than 2000 m³/s, or having a reservoir volume of greater than 1.0 million m³; or (c) if they present special design complexities for example, location in a zone of high seismicity, foundations that are complex and difficult to prepare, or retention of toxic materials.

31. For sub-projects involving large dams TKB will require the sub-borrower to:
   a) appoint an independent panel of experts (the Panel) to review the investigation, design, and construction of the dam and the start of operations;
   b) prepare and implement detailed plans: a plan for construction supervision and quality assurance, an instrumentation plan, an operation and maintenance plan, and an emergency preparedness plan;
   c) prequalify bidders for civil works involving dams and associated structures;
   d) carry out periodic safety inspections of the dam after completion.

32. For sub-projects that will rely on the performance of an existing dam or a dam under construction (DUC) as defined in OP 4.37, TKB will require the sub-borrower to appoint an independent expert or experts to carry out the due diligence work on the existing dam as defined in Paras 8 and 9 of OP 4.37. A Model Terms of Reference (TOR) for a Dam Safety Review Panel for eligible project involving large dams has been prepared (attached as Appendix VI.F).

33. The Panel shall consist of three or more experts, appointed by the sub-borrower and acceptable to TKB and the World Bank, with expertise in the various technical fields relevant to the safety aspects of the particular dam. A model Terms of Reference is included in the Operational Manual. For convenience of project sponsors, TKB will compile a list of specialists who are acceptable to TKB and the World Bank. However, individual sub-borrowers will be responsible for constitution of their own panel and are not confined to the list of specialists compiled by the TKB. All such panel members will, however, be required to receive the no objection of TKB and the World Bank.
Appendix VI.A

EIA REPORT FORMAT FOR GROUP I

1.TITLE PAGE
- name, address, phone and fax number of project developer
- name of the project
- name and location of project site
- name, address, phone and fax number of report developer
- preparation date of report

2. CONTENT OF REPORT

PART I: DESCRIPTION AND PURPOSE OF THE PROJECT
- description, period, goal, importance and necessity of investment
- description of the physical characteristics of the whole project and the land-use requirements during the construction and operational phases,
- general explanation of important environmental impacts of proposed project (water, air, soil pollution, noise, vibration, light, heat, radiation etc.)
- outline of the main alternatives studied by the developer and an indication of the main reasons for this choice of selected location,

PART II: LOCATION OF PROJECT SITE
- information about the location, coordinate and alternatives of selected project location

PART III: EXISTING ENVIRONMENTAL CHARACTERISTICS OF PROJECT LOCATION AND INFLUENCE AREA
Description of the aspect of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, geologic and hydrogeologic characteristics, natural disaster conditions, soil, water, air, climatic factors, ownership status, architectural and archeological heritage, landscape characteristics, land use, sensitivity degree (taking into account of sensitive area which are defined in EIA regulation), and the inter-relationship between the above factors.

PART IV: IMPORTANT ENVIRONMENTAL IMPACTS OF PROJECT AND MITIGATION MEASURES
Description of the likely significant effects of the proposed project on the environment resulting from (definition should cover short, medium and long term, permanent and temporary, positive and negative impacts):
- area used for project
- the use of natural resources
- the amount of pollutant (interaction of atmospheric conditions and pollutant),
- description of problems which create pollution on the environment and how to minimize of wastes
- description of the forecasting methods to assess the effects on the environment
- description of the measures envisaged to reduce any significant adverse effects on the environmental (additional research should be completed about if any
migration fish exist or not and construct a “fish pass platform” considering compensation water if long tunnel exist for hydro project)

**PART V: PUBLIC PARTICIPATION**
- determination of public (citizen) likely be impacted by the project and suggested methods to take care of public opinion in EIA studies
- other related sides to be applied for opinion
- any other information and document

**PART VI: A NON-TECHNICAL SUMMARY OF THE INFORMATION PROVIDED UNDER THE ABOVE HEADINGS**

Part VII: Environmental Management Plan (EMP), see attached EMP format

**Notes:** An indication of difficulties encountered by the developer in compiling of required information.
## Appendix VI.A
ENVIRONMENTAL MANAGEMENT PLAN FORMAT

A. MITIGATION PLAN

<table>
<thead>
<tr>
<th>Phase</th>
<th>Issue</th>
<th>Mitigating Measure</th>
<th>Cost</th>
<th>Institutional Responsibility</th>
<th>Comments (e.g. secondary impacts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
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<tr>
<td>Operation</td>
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<tr>
<td>Decommissioning</td>
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</tbody>
</table>
### B. MONITORING PLAN

<table>
<thead>
<tr>
<th>Phase</th>
<th>What parameter is to be monitored?</th>
<th>Where is the parameter to be monitored?</th>
<th>How is the parameter to be monitored/ type of monitoring equipment?</th>
<th>When is the parameter to be monitored/ frequency of measurement or continuous?</th>
<th>Why is the parameter to be monitored (optional)?</th>
<th>Install</th>
<th>Operate</th>
<th>Install</th>
<th>Operate</th>
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<td>Baseline</td>
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<tr>
<td>Decommission</td>
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</tbody>
</table>
C. INSTITUTIONAL STRENGTHENING

1. Equipment Purchases (Tabular Presentation Preferred)

List:
- Type of equipment
- Number of Units
- Unit cost
- Total Cost
- Local or International Purchase

2. Training/Study Tours

List:
- Type of Training (Mitigation, Monitoring, Environmental Management, Other)
- Number of Students
  - Current and Future Organizational Unit in Which They Work or Current and Future Title/Job
  - Description
- Duration of Training
- Start Date/End Date (for each student)
- Venue of Training (Domestic or Abroad)
- Institute or Organization to Provide Training
- Cost (Local and Foreign)

3. Consultant Services

- Type of Service
- Terms of Reference
- Justification
- Cost

4. Special Studies

- Justification
- Terms of Reference
- Cost

D. SCHEDULE

Present (preferably in Chart Form) Start Dates and Finish Dates for:

- Mitigation Activities
- Monitoring Activities
- Training Activities

This information should be on the same chart defining the overall project schedule (Project Implementation Plan)

E. INSTITUTIONAL ARRANGEMENTS

A narrative discussion supported by organizational charts detailing:

- Responsibilities for mitigation and monitoring
Environmental information flow (reporting—from who and to who and how often)
Decision making chain of command for environmental management (to take action, to authorize expenditures, to shut down, etc.)

In short, how is all the monitoring data going to be used to maintain sound environmental performance—who collects the data, who analyzes it, who prepares reports, who are the reports sent to and how often, and who does that person send it to, or what does he/she do with the information—who has the authority to spend, shutdown, change operations etc.

F. CONSULTATION WITH LOCAL NGOs AND PROJECT-AFFECTED GROUPS

Provide documentation of the following:

- Date(s) consultation(s) was (were) held
- Location(s) consultation(s) was (were) held
- Who was invited  
  Name, Organization or Occupation, Telephone/Fax/e-mail number/address (home and/or office)
- Who attended  
  Name, Organization or Occupation, Telephone/Fax/e-mail number/address (home and/or office)
- Meeting Program/Schedule
- What is to be presented and by whom
- Summary Meeting Minutes (Comments, Questions and Response by Presenters)
Appendix VI.B

PRE-EIA REPORT FORMAT (GROUP II and III)

TITLE PAGE
- Name, address, phone and fax number of project developer
- Name of the project
- Name and location of project site
- Purpose and definition of project
- Name, address, phone and fax number of report developer
- Preparation date of report

1. NON-TECHNICAL SUMMARY OF REPORT

2. Characteristics of project
The characteristics of project must be considered having regard, in particular, to:
- The size of the project and required area etc,
- The interaction with other facilities,
- The use of natural resources,
- The production of waste,
- Pollution,
- The risk of accident, having regard in particular to substances or technologies used.

3. Location of projects
The environmental sensitivity of geographical areas likely to be affected by project must be considered, having regard, in particular:
- The existing land use,
- The characteristics of geologic and hydro geologic and natural disaster condition
- The relative abundance, quality and regenerative capacity of natural resources in the area
- The evaluation of the natural environment, paying particular attention to the sensitive area list given in the annex-V in EIA Regulation (wetlands, coastal zones, mountain and forest area, agricultural lands, national parks, special protection areas, densely populated area, landscape of historical, cultural or archaeological significance, etc.)

4. Characteristics of potential impacts
The potential significant effects of projects must be considered in relation to criteria set under 2 and 3 above, and having regard in particular:
- The extent of impact (geographical area and size of the affected population),
- The characteristics, magnitude, duration, frequency and renewably of the impacts
- (additional research should be completed on if any migration of fish exists or not and construction of a “fish pass platform”, considering compensation water if long tunnel exist for hydro project)

5. Alternatives of projects and location

6. Conclusions
General evaluation will cover the important environmental impacts and comparison of alternatives of the project and brief summary of the information provided under the above heading.
Appendix VI.C

PROJECT FILE (to be completed by private sponsor)

Eligible project title:
Energy sector/Generation type

- Brief description of eligible project (nature of project, eligible project cost, physical site [site area, location, capacity, etc.])

- The potential impacts (water, soil, air, noise, geographical area and the human and natural environment)
Appendix VI.D

CLASSIFICATION OF CATEGORIES

Group I
1. River based power plants at a single location, total capacity 50 MW or above
2. Small hydro with dam or reservoir which have the lake volume more than 100 million m$^3$ or lake surface area more than 15 km$^2$.

Group II
1. River based power plants at a single location, total capacity between 10-50 MW
2. All wind energy based electricity generation stations
3. Small hydro projects with dam or reservoir which have the lake volume more than 10 million m$^3$ or lake surface area more than 1 km$^2$.

Group III
1. River based power plants single location, total capacity less than 10 MW
2. Small hydro projects with dam or reservoir which are not included Group I and II.

Group IV
1. Any other restrictions not foreseen in this report.
Appendix VI.E
(Written agreement from MoE)
Operational Policies

Safety of Dams

Note: OP and BP 4.37 replace the versions dated September 1996. Other Bank policies that may apply to projects that involve dams include the following: OP/BP 4.01, Environmental Assessment; OP/BP 4.04, Natural Habitats; OP 4.11, Cultural Property; OD 4.20, Indigenous Peoples; OD 4.30, Involuntary Resettlement; and OP/BP 7.50, Projects on International Waterways. Questions on dam safety should be addressed to the Director, Rural Development Department (RDV).

1. For the life of any dam, the owner1 is responsible for ensuring that appropriate measures are taken and sufficient resources provided for the safety of the dam, irrespective of its funding sources or construction status. Because there are serious consequences if a dam does not function properly or fails, the Bank2 is concerned about the safety of new dams it finances and existing dams on which a Bank-financed project is directly dependent.

2. When the Bank finances a project that includes the construction of a new dam,3 it requires that the dam be designed and its construction supervised by experienced and competent professionals. It also requires that the borrower4 adopt and implement certain dam safety measures for the design, bid tendering, construction, operation, and maintenance of the dam and associated works.

3. The Bank distinguishes between small and large dams.
   a) Small dams are normally less than 15 meters in height. This category includes, for example, farm ponds, local silt retention dams, and low embankment tanks.
   b) Large dams are 15 meters or more in height. Dams that are between 10 and 15 meters in height are treated as large dams if they present special design complexities—for example, unusually large flood-handling requirements, location in a zone of high seismicity, foundations that are complex and difficult to prepare, or retention of toxic materials.5 Dams under 10 meters in height are treated as large dams if they are expected to become large dams during the operation of the facility.

4. For small dams, generic dam safety measures designed by qualified engineers are usually adequate. For large dams, the Bank requires
   a) reviews by an independent panel of experts (the Panel) of the investigation, design, and construction of the dam and the start of operations;
   b) preparation and implementation of detailed plans: a plan for construction supervision and quality assurance, an instrumentation plan, an operation and maintenance plan, and an emergency preparedness plan.6
   c) prequalification of bidders during procurement and bid tendering,7 and
   d) periodic safety inspections of the dam after completion.

5. The Panel consists of three or more experts, appointed by the borrower and acceptable to the Bank, with expertise in the various technical fields relevant to the safety aspects of the particular dam.8 The primary purpose of the Panel is to review and advise the borrower on matters relative to dam safety and other critical aspects of the dam, its appurtenant structures, the catchment area, the area surrounding the reservoir, and downstream areas. However, the borrower normally extends the Panel’s composition and terms of reference beyond dam safety to cover such areas as project formulation; technical design; construction procedures; and, for water storage dams, associated works such as power facilities, river diversion during construction, ship lifts, and fish ladders.
6. The borrower contracts the services of the Panel and provides administrative support for the Panel's activities. Beginning as early in project preparation as possible, the borrower arranges for periodic Panel meetings and reviews, which continue through the investigation, design, construction, and initial filling and start-up phases of the dam. The borrower informs the Bank in advance of the Panel meetings, and the Bank normally sends an observer to these meetings. After each meeting, the Panel provides the borrower a written report of its conclusions and recommendations, signed by each participating member; the borrower provides a copy of that report to the Bank. Following the filing of the reservoir and start-up of the dam, the Bank reviews the Panel's findings and recommendations. If no significant difficulties are encountered in the filling and start-up of the dam, the borrower may disband the Panel.

Existing Dams and Dams under Construction

7. The Bank may finance the following types of projects that do not include a new dam but will rely on the performance of an existing dam or a dam under construction (DUC): power stations or water supply systems that draw directly from a reservoir controlled by an existing dam or a DUC; diversion dams or hydraulic structures downstream from an existing dam or a DUC, where failure of the upstream dam could cause extensive damage to or failure of the new Bank-funded structure; and irrigation or water supply projects that will depend on the storage and operation of an existing dam or a DUC for their supply of water and could not function if the dam failed. Projects in this category also include operations that require increases in the capacity of an existing dam, or changes in the characteristics of the impounded materials, where failure of the existing dam could cause extensive damage to or failure of the Bank-funded facilities.

8. If such a project, as described in para. 7, involves an existing dam or DUC in the borrower's territory, the Bank requires that the borrower arrange for one or more independent dam specialists to (a) inspect and evaluate the safety status of the existing dam or DUC, its appurtenances, and its performance history; (b) review and evaluate the owner's operation and maintenance procedures; and (c) provide a written report of findings and recommendations for any remedial work or safety-related measures necessary to upgrade the existing dam or DUC to an acceptable standard of safety.

9. The Bank may accept previous assessments of dam safety or recommendations of improvements needed in the existing dam or DUC if the borrower provides evidence that (a) an effective dam safety program is already in operation, and (b) full-level inspections and dam safety assessments of the existing dam or DUC, which are satisfactory to the Bank, have already been conducted and documented.

10. Necessary additional dam safety measures or remedial work may be financed under the proposed project. When substantial remedial work is needed, the Bank requires that (a) the work be designed and supervised by competent professionals, and (b) the same reports and plans as for a new Bank-financed dam (see para. 4(b)) be prepared and implemented. For high-hazard cases involving significant and complex remedial work, the Bank also requires that a panel of independent experts be employed on the same basis as for a new Bank-financed dam (see paras. 4(a) and 5).

11. When the owner of the existing dam or DUC is an entity other than the borrower, the borrower enters into agreements or arrangements providing for the measures set out in paras. 8-10 to be undertaken by the owner.

Policy Dialogue

12. Where appropriate, as part of policy dialogue with the country, Bank staff discuss any measures necessary to strengthen the institutional, legislative, and regulatory frameworks for dam safety programs in the country.

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1. The owner may be a national or local government, a parastatal, a private company or a consortium of entities. If an entity other than the one with legal title to the dam site, dam, and/or reservoir holds a license to operate the dam, and has responsibility for its safety, the term "owner" includes such other entity.
2. "Bank" includes IDA, and "loans" include credits.
3. For example, a water storage dam for a hydropower, water supply, irrigation, flood control, or multipurpose project; a tailings or a slimes dam for a mine project; or an ash impoundment dam for a thermal power plant.
4. When the owner is not the borrower, the borrower ensures that the obligations of the borrower under this OP are properly assumed by the owner under arrangements acceptable to the Bank.

5. The definition of "large dams" is based on the criteria used to compile the list of large dams in the World Register of Dams, published by the International Commission on Large Dams.

6. **BP 4.37, Annex A**, sets out the content of these plans and the timetable for preparing and finalizing them. In the dam safety practice of several countries, the operation and maintenance plan includes both the instrumentation plan and the emergency preparedness plan as specific sections. This practice is acceptable to the Bank, provided the relevant sections are prepared and finalized according to the timetable set out in **BP 4.37, Annex A**.

7. See *Guidelines: Procurement under IBRD Loans and IDA*.

8. The number, professional breadth, technical expertise, and experience of Panel members are appropriate to the size, complexity, and hazard potential of the dam under consideration. For high-hazard dams, in particular, the Panel members should be internationally known experts in their field.

9. If the Bank's involvement begins at a later stage than project preparation, the Panel is constituted as soon as possible and reviews any aspects of the project that have already been carried out.
Appendix VI.G

Turkey – Renewable Energy Project

[Model] Terms of Reference (TOR) for the Dam Safety Review Panel (DSRP)

General

The Turkey Renewable Energy Project is assisting to finance privately developed renewable energy projects, which include low impact hydropower projects with reservoir areas less than [15] km², reservoir volumes less than [100] million m³, and installed capacities less than [50] MW – based on the Annex II limits of the Turkish Environmental Impact Assessment Regulation.

As part of the Renewable Energy Project a Special Purpose Debt Facility (SPDF) will be established in two financial intermediaries (Fls), specifically TSKB and TKB, who will make sub loans to private developers [Eligible project Owner].

Eligible projects involving large dams are subject to the provisions of the World Bank Operational Policy OP 4.37 (attached). For such projects the World Bank requires the appointment of an independent panel of experts to review the investigation, design, and construction of the dam and the start of operations.

These Terms of Reference outline the responsibilities of the Dam Safety Review Panel (DSRP).

Organization and Membership

The DSRP is appointed by the sub-borrowers and shall initially contain at least three permanent members with wide and specialized experience which collectively covers the following fields [may vary depending on individual eligible projects]:
- Engineering Geology
- Concrete Dam Design
- Embankment Dam Design
- Hydraulic Structures Design Layout and Operation
- Rock Mechanics and Design of Underground Works
- Concrete Technology
- Construction of Dams and Hydropower Facilities

If necessary, the DSRP can be enlarged on a temporary basis by the addition of specialists with expertise in areas such as: flood hydrology, sedimentology, seismology, Seismic-related analysis and design etc.

A Chairman will be appointed by the sub-borrower to co-ordinate communications of the DSRP, to call and chair its meetings, to ensure the membership’s activity and to provide balance to its reviews and recommendations.

Composition of the DSRP, and the areas of expertise which it covers may vary during the course of the Project as considered appropriate by the [Eligible project Owner] in consultation with the Chairman and concurrence of the [Fl] and the World Bank.

Meetings and Schedules

The DSRP will convene at regular intervals to review the status of work in progress. Frequency of meetings, their location and timing will be adjusted to conform to the schedule of design and construction, but the time between meetings shall not normally exceed nine months. At each meeting the scheduled dates for the next meeting and tentative timing for the subsequent meeting will be approximately fixed, to enable DSRP members to arrange their individual schedules. Extraordinary meetings of the DSRP may be called in critical situations, and services of individual members may be solicited between meetings as considered necessary or desirable by the Owner, with copies of their input being sent to other DSRP members.

Prior to adjournment of DSRP meetings, the DSRP will prepare and submit written findings, conclusions, and recommendations (regular or extraordinary), signed by all members in attendance. All
reports will be submitted to [Eligible project Owner] and through [Eligible project Owner] to [FI] and thence to the World Bank.

Scope of Reviews

The primary purpose of the Panel is to review and advise the [Eligible project Owner] on matters relative to dam safety and other critical aspects of the dam, its appurtenant structures, the catchment area, the area surrounding the reservoir, and downstream areas. Specific subjects on which the DSRP are expected to comment, as relevant to the specific eligible project, are listed below. The DSRP should also comment on any other matter which it perceives to be important to the successful design, construction and operation of the projects and to the long-term safety of the dams and appurtenances.

- **Engineering Geology**: Quality and sufficiency of geological investigations and interpretation thereof; correctness of geological and hydro-geological models of the regions, reservoir areas and dam sites; engineering implications with respect to foundation design, stability of natural and excavated slopes; and support of surface and underground excavations.
- **Rock Mechanics/Underground Excavations**: Design of surface and underground excavations, including selection of stable slopes; appropriate shapes and orientations for underground excavations; design of temporary and permanent support systems and linings; and drainage of excavated areas.
- **Concrete and Embankment Dam Design**: Choice of materials, analysis and design procedures, factors of safety, provisions for earthquake, specified construction procedures.
- **Hydraulic Structures Design**: Hydraulic and structural design and specifications for the spillways and diversion facilities.
- **Flood Hydrology**: Appropriateness of selection of design flood, and provisions for extreme events.
- **Concrete Technology**: Application of appropriate technology for the design & manufacture of concrete mixes.
- **Construction of Dams and Hydropower Facilities**: With particular reference to quality control procedures.

The DSRP will also review the various detailed plans required to be prepared in accordance with OP4.37: the plan for construction supervision and quality assurance, the instrumentation plan, the operation and maintenance plan, and an emergency preparedness plan.

Report on Project Completion

Following the filling of the reservoir and start-up of the dam, the DSRP will prepare a final report summarizing its findings on project design, construction and preparation for operations. Based on this report, and if no significant difficulties are encountered in the filling and start-up of the dam, the work of the DSRP with regard to the specific eligible project would be deemed to have been successfully completed.
VII. PROCUREMENT PROCESS

VII.1. Background

1. The procurement of goods, civil works and consultants’ services will be carried out in accordance with IBRD’s procurement guidelines. The procurement arrangements under sub-loans to private Beneficiary Enterprises through PFIs for goods, (including related non-consulting services), civil works and consultants’ services are described in this Section.

2. Any contract with an affiliate of the beneficiary enterprise would not be financed from REL facility. However, beneficiary enterprises could use affiliates as general contractors with the REL financing non-affiliated contractors.

3. TKB will be responsible for ensuring that the sub-borrowers comply with the procurement rules for sub-loans.

4. Prior review of IBRD would apply to all of the stages of contracting for ICB including bidding documents, bid evaluation reports and draft contracts. For commercial Practices prior review would be undertaken of the first two contracts awarded.

VII.2 Procurement Under Commercial Practices

1. **Goods:** For procurement of goods contracts costing equal or less than $5 Million equivalent established Local Private Sector Commercial Practices would be used. Beneficiary Enterprises should generally seek bids from a list of potential suppliers broad enough to ensure competitive prices. Care has to be taken of other relevant factors such as time of delivery, efficiency and reliability of the goods and availability of maintenance facilities and spare parts therefore, and in case of non-consultant services, the quality and competence of the parties rendering them. Advertising in the local and international press will not be required. For contracts above US $1.0 million equivalent but less than US $ 5.0 million equivalent, more than one quotation must be obtained and documented.

2. **Civil works:** Civil works contracts costing equal or less than $8 Million equivalent would be procured through established Local Private Sector Commercial Practices. The proceeds of REL would not finance any contract with an affiliate of the Beneficiary Enterprise. However, Beneficiaries could use affiliates as general contractors with REL financing non-affiliated contractors. For contracts above US$1.0 million equivalent but less than US$ 8.0 million equivalent, more than one quotation must be obtained and documented.

3. IBRD will review yearly with TKB the procurement procedures under commercial practices and on a random basis will carry out post review for one in five contracts.

VII.3 ICB (International Competitive Bidding) --For Goods contracts above US$ 5 Million and Civil Works contracts above US$8 Million

1. The objective of International Competitive Bidding (ICB), as described in the "World Bank Guidelines for Procurement under IBRD Loans and IDA Credits" (issues in January 1995, revised January and August 1996, September 1997 and January 1999), is to provide all eligible prospective bidders with timely and adequate notification of a sub-borrower’s requirements and an equal opportunity to bid for the required goods and civil works.
2. All procurement of goods under contracts above US$5 million equivalent and civil works above US$8 million equivalent will be subject to IBRD prior review and must be procured under ICB. A highly summarized version of the steps to be followed by sub-borrowers in the case of ICB is given below:

- **Preparation of Bid Documents.** Send bid documents to IBRD for review and approval via PFI. Any further amendments to the bid documents will also need IBRD consent.

- **Specific Procurement Notice**
  - Beneficiary Enterprise advertises in national newspaper and informs embassies of the eligible countries about the upcoming ICB package.
  - Sends, via PFI, a copy of the notice to IBRD for publication in the Development Business (an IBRD publication), no later than 30 days prior to the availability of bid documents. The beneficiary enterprise may also directly notify suppliers and other interested parties; this is optional but is recommended for greater publicity.

- **Invite Bids from Public.** Keep the bidding time open for at least 45 days before closing. State the latest time, date and place for the submission of bids in the bid document.

- **Open Bids** at the specified time in public and announce the name and amount of each bidder. All other information contained in the bid document remains confidential.

- **Evaluation and Comparison of Bids.** Send the bid award recommendation with an evaluation report to IBRD via PFI for review and approval.

- **Award the contract.** After award, send two copies of the signed contract to IBRD via PFI before any disbursement is requested.

**VII.4. Employment of Consultants**

Consultants' services shall be procured in accordance with the provisions of Section I and IV of the “Guidelines: Selection and Employment of Consultants by World Bank Borrowers” published by the World Bank in January 1997 and revised in September 1997, January 1999 and May 2002 (the Consultant Guidelines), paragraph 1 of Appendix 1 thereto, Appendix 2 thereto and the following provisions of this Section.

For Consultant Firms:
- Consultant services which estimated cost is **less than US$1 million** equivalent will be procured in accordance with commercial practices.
- Consultant services estimated to cost **above US$1 million** equivalent will be subject to IBRD prior review and must be procured under QCBS.

For Individual Consultants:
- Individual consultants estimated to cost **less than US$ 50,000** equivalent will be procured in accordance with commercial practices.
- Individual consultants estimated to cost **above US$ 50,000** equivalent will be subject to IBRD prior review and must be procured in accordance with Section V of the Consultants’ Guidelines.
II. DISBURSEMENT PROCESS

1. This section describes the disbursement rules applicable to REL sub-loan/financing leases. Disbursements shall be made for:

   - 100% of sub-loan/financing leases for eligible expenditures (up to 50% of the total project expenditures, explained in part sub-loan/financing lease limits).

2. Expenditures for goods, civil works and consultants’ services made earlier than 30.06.2003 will not be eligible for financing.

3. To facilitate the disbursement of funds, TKB shall nominate a unit and inform the IBRD and the Undersecretariat of Treasury accordingly, to be responsible for transmitting the applications and monitoring disbursements.

4. TKB shall open and maintain a “Special Account” in itself for the purpose of making withdrawals from IBRD and disbursements to beneficiary enterprises. TKB will provide a comfort letter to the World Bank to protect the account.

5. The disbursements under this facility can be made only for eligible sub-loans or financing lease that are in any one of the following ways:

   (a) An advance payment upon the request of TKB up to 5 million USD (ceiling amount of the Special Account) to the Special Account of TKB and replenishment of this account with respect to the eligible payments already made by TKB to the sub-loans/financing leases. TKB shall ask for replenishment of the Special Account by standard World Bank withdrawal forms.

   (b) Direct payment by the IBRD to the supplier of goods, civil works and consultants’ services for eligible contracts under the sub-loan/financing lease, upon such a request by TKB;

   (c) Special Commitment issued by the IBRD to reimburse accepting banks for payments made or to be made under Letters of Credit;

   (d) Reimbursement to TKB for the expenditures made from TKB’s budget.

Since the disbursements will be made for specific contractual expenditures under each sub-loan/financing lease, multiple Disbursement Requests may be submitted under a sub-loan/financing lease. The Disbursement Request shall be signed by two authorized representatives of TKB. Moreover, the name and number of the respective sub-loan/financing lease agreement and the Subsidiary Loan Agreement shall be stated in the Disbursement Request.
IX. ORGANIZATIONAL ARRANGEMENTS WITHIN TKB FOR CREDIT LINE MANAGEMENT

1. The marketing of the proposed facility and the appraisal of projects seeking funds will be carried out by two sections, which are independent of each other. The marketing of the REL facility by TKB will be carried out by Credit Department, headed by Deputy General Manager. The evaluation of the projects will be carried out by the Project Appraisal Department, headed by Deputy General Manager. Each project will be evaluated by a project team comprising of an engineer, a project economist and a financial analyst.

2. The project appraisal report will be submitted to the Credit Committee (CC) of TKB which comprises of the Directors of Credit and Project Appraisal Departments and Deputy General Directors. If the CC approves the project then it will be submitted to the Board of Directors. After the approval by the Board and signing of the loan agreement the loan will be ready for disbursement. The first two projects will be sent to IBRD for approval. For subsequent projects the sub-loan/financing lease data form will be send to IBRD in order to get sub-loan/financing lease number. The Funding and Treasury Departments headed by Deputy General Manager will carry-out the task of sending disbursement requests to the IBRD and the extension of the loan to the Beneficiary Enterprises. After the disbursement stage the loan monitoring will be carried out with cooperation of the Credit and Project Appraisal Departments. The arrangements foreseen for the REL facility is given in Annex A.

3. The reporting to be made to IBRD will be jointly prepared by the Project Appraisal, Credit and Funding Departments. The formats of Financial Management Reports are given in Annex B.
Annex A. Organizational Arrangements Within TKB for Credit - Line Management

- Contact Established with Beneficiary enterprise Through Credit Department
- Project Appraisal Carried - Out by Project Appraisal Department
- Project Submitted to Credit Committee
- Project Submitted to Board of Directors for Approval
- Loan Agreement Signed With The Company Through Credit Department
- Disbursement Requested From IBRD Through Funding Department & Treasury Department
- Loan Utilized By Beneficiary enterprise
- Reporting to IBRD and Loan Monitoring

First Two Projects Submitted to IBRD for Approval

IBRD Grants Approval & Sub-loan/financing lease

Number