RISK ASSESSMENT AND MANAGEMENT PLAN

| | Risk | | | | |
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| Risk Description | Assessment | Mitigation Measures or Risk Management Plan | | | |
| Public Financial Man | Public Financial Management | | | | |
| Poor financial health of NEA with significant debt | Medium | Government contributions are required to cover NEA's operating viability gap until retail tariffs reflect costs. Ongoing ADB TA is supporting the government to implement the NEA financial restructuring plan and management reforms, and strengthen ETFC's capacity to review retail tariff adjustment petitions proposed by NEA. The project will support NEA to establish a pricing mechanism for open access of NEA's power grid by third parties for purposes of exporting electricity. The wheeling charges and free energy and/or share from the export-orientated IPP projects will help enhance NEA's financial sustainability. Government committed to make a budgetary provision for a material cash recapitalization of NEA for the fiscal year 2014/2015. | | | |
| Limited financial and management autonomy of NEA | Medium to low | NEA to separate accounting for generation, transmission, and distribution, to financially separate these operations as part of its financial restructuring plan, since fiscal year 2014/15. | | | |
| Weak record keeping, accounting, reporting, and internal controls | High to medium | (i) The executing agencies will maintain separate records and accounts adequate to identify the goods and services financed by ADB; (ii) ADB review missions will request updates on remedial actions taken against audit observations. | | | |
| Limited financial management capacity in the implementing agencies | High to medium | FCGO to assign experienced and trained accountants to the project, enhance internal audit functions, and help reduce turnover of deputed accountants. | | | |
| Delayed approval and release of the budget | Medium to low | Timely release of budget by Ministry of Finance and FCGO, and release of agreed project budget tranches. | | | |
| Procurement | | | | | |
| Inadequate capacity for procurement and contract management | High to medium | ADB will conduct regular review of procurement progress. ADB will provide procurement consultants to assist the executing agencies with procurement. | | | |
| Lack of decision- making capacity to review and respond to contractors' claims and variations | High | A vertically integrated PMD is to be set up within NEA. The PMD, to be headed by deputy managing director level officer, will be responsible for preparation, procurement, and construction supervision of all new ADB projects. | | | |
| Lack of contractor performance oversight, monitoring, and evaluation | Medium to low | Under the project preparatory technical assistance, a PPS is being engaged to support NEA to conduct detail design including the routes, finalize bidding documents, and select turnkey contractors. A project supervision consulting firm, funded by the project, will supervise project construction. Thus, seamless consulting service support to NEA will be provided. | | | |

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| Escalation of costs due to contract variation and renegotiation | Assessment Medium to low | Mitigation Measures or Risk Management Plan Contract variations require pre-approval of ADB. (NEA notes that recent bids for transmission projects have been lower than estimates and expects that some loan savings will materialize.) | | |
| Noncompliance with set rules and laws, including delivery of substandard equipment | High to medium | Dialogue with NEA and line ministries to consider establishing predelivery inspection and/or test laboratory for equipment at time of purchase; third party inspections can be conducted as an interim alternative. | | |
| Corruption | | | | |
| Financial irregularities and misuse of funds | Medium | PMD to investigate outstanding audit observations and take relevant action. Commission for the Investigation of Abuse of Authority is expected to maintain vigilance over NEA operations. Further, (i) strict financial management with full adherence to monitoring and reporting systems; (ii) strict compliance with local laws and procurement regulations and guidelines published by the Department of Public Finance; (iii) financial audit by the Auditor General's Office of all subprojects; and (iv) random and independent spot checks of implementation by ADB, will be applied. Furthermore, NEA and AEPC will each maintain a project website that will be updated regularly and include (i) bidding procedures, bidders, and contract awards; (ii) use of the funds disbursed under the project; and (iii) physical progress. | | |
| Other Risks | l s.a. ii | D e 1 e 1 e 1 e 1 e 1 | | |
| Natural disaster, and geological conditions cause unexpected construction delays | Medium | Routing and siting of facilities follows good engineering practice to minimize risks posed by exposure to natural hazards. Detailed design to anticipate 50-year events within 20-year design lifetime. | | |
| ROW issues cause construction delays | Medium to high | The (PPS will help NEA finalize the design including route of lines, footing and foundations of towers and substations, and ROW. The PPS will also help NEA update and implement a resettlement plan. | | |
| Frequent staff turnover and administrative indiscipline | Medium to low | The staff of PMD will be full time. In additional to salaries, bonuses will be provided based on performance. | | |
| Associated generation capacity is not commissioned according to schedule | Medium | Construction of transmission lines and substations requires less than 3 years versus more than 3 years for associated generation construction. Transmission subprojects have been identified and packaged according to ongoing generation development with transmission construction beginning 6 months after construction commences on associated generation facilities. | | |
| Weak implementation capacity of AEPC for large-scale projects | High | A two-tier implementation structure will be adopted. The project implementation consultants will support the central Project Implementation Unit, while regional service centers and social mobilizers will support AEPC at the field level. Subprojects are implemented through turnkey contracts. | | |

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| Absence of independent electricity regulator to ensure cost-reflective tariffs (wholesale and retail) | Medium | ETFC needs to evolve into an independent regulatory agency free from political interference. The project will provide advisory services and capacity building to promote the evolution of ETFC to an independent regulator. |
| Contributions by communities are not available and realized on time slowing project implementation | High | The Regional Service Centers work closely with households to assist them access funds through District Development Committee and/or Village Development Committee and other development partners. Willingness of contribution by communities is one subproject selection criterion, and contribution of communities in place is one of condition for subproject approval before procurement is started. |
| Tariff collected from end users may not cover O&M cost due to low tariff from households and low load factor | Medium | The project design has integrated the support for the PEU with project implementation to ensure PEU activities are ready for operation once the power generation parts are commissioned. |
| Overall | High | |

ADB- Asian Development Bank, AEPC- Alternative Energy Promotion Centre, ETFC- Electricity Tariff Fixation Committee, FCGO- Financial Comptroller General Office, NEA- Nepal Electricity Authority, O&M- operation and maintenance, PMD- Project Management Directorate, PPS- project preparation support consulting firm, ROW- right of way, TA- technical assistance.

Source: The Asian Development Bank