FINANCIAL MANAGEMENT ASSESSMENT

A. Executive Summary

1. A financial management assessment (FMA) was conducted in accordance with the Asian Development Bank's (ADB) guidelines.[1] The FMA considers the Nepal Electricity Authority (NEA), a state-owned entity, in its role as the executing agency and implementing agency for the project. The FMA (and particularly the internal control and risk assessment) updates the FMA of NEA undertaken in 2014.

2. The country Public Expenditure and Financial Accountability (PEFA) assessment report of 2015 showed improvement in 16 public financial management performance areas out of 28, compared to the assessment in 2008.[2] The implementation of Government Finance Statistics (GFS) and Treasury Single Account (TSA) has increased the transparency of the budget execution. However, there are weaknesses in internal controls and oversight as well as capacity shortfalls. Gaps are also noted in implementation of public financial management rules and procedures, compliance with the financial acts, weak internal control, staff accountability, and enforcement due to insufficient human resources, capacities, and enforcement. The planned countrywide roll out of the Computerized Government Accounting System (CGAS) is a major initiative that will provide timely and accurate financial management reporting. Overall fiduciary risk for Nepal is assessed as substantial.

3. NEA's strengths were identified in the 2014 FMA as follows:

(i) the Government of Nepal's financial management system is based on a robust legislative framework, the Financial Procedures Act (1999) and the Financial Procedures Rules (2007). As a 100% state-owned enterprise, NEA applies the government's financial rules and regulations and has its own set of board-approved accounting policies, procedures and manuals;
(ii) NEA has significant experience in the implementation of ADB financed projects and staff are familiar with ADB financial management procedures;
(iii) NEA has adequate staffing levels; and
(iv) enterprise resource planning (ERP) is being introduced by NEA, which will, over time, improve its financial management, accounting and reporting capacity. This will include planning related modules for fixed assets and stores and spares management, as well as manuals for accounting and internal controls.

4. Although this list of strengths remains largely valid, it is noted that the ERP implementation has suffered further delays, and a realistic expectation is that the first planned module, an Integrated Financial Management Information System (IFMIS), will not be operational until mid to late 2018 at the earliest.

5. Weaknesses summarized in the 2014 FMA also remain valid as follows:

(i) audit reports indicate internal control weaknesses and recent allegations of (and arrests for) impropriety under project activities underscore these concerns;

[1] ADB. 2005. *Financial Management and Analysis of Projects*. Manila; ADB. 2015. *Financial Management Technical Guidance Note – Financial Management Assessment.* Manila

[2] Government of Nepal. Ministry of Finance Nepal and PEFA Secretariat. 2015. *Public Expenditure and Financial Accountability Assessment: Nepal PFM Performance Assessment II as of FY2013/2014.* Kathmandu.

(ii) NEA's internal audit function cannot be relied upon;
(iii) there is no apparent methodological and thorough follow up of auditors' recommendations;
(iv) non-compliance with certain key accounting standards leading to misrepresentation in the financial statements; and
(v) as discussed above, ERP implementation is scheduled to take place over the next 2 years, however the transfer of accounts for the subject project to the ERP will be discussed between NEA and ADB at the time. In the meantime, partially computerized processes will continue to be relied upon.

6. Key improvements since 2014 include:

(i) in anticipation of the company-wide introduction of ERP, NEA has been converting accounting databases maintained in Excel (general ledger, inventory, payroll and fixed assets) to Oracle databases. Full conversion has been achieved in approximately 100 of 200 permanent budget centers; and
(ii) improved project financial reporting.

7. The overall financial management risk is assessed as substantial. The following Financial Management Action Plan is proposed in Table 1.

Table 1: Financial Management Action Plan

Action	Responsibility	Resources	Timing
Prepare plan for further financial restructuring of NEA	NEA	No resource requirement	By 15 December 2017
NEA to ensure that ERP-based IFMIS is implementation successfully	NEA	NEA/WB	ERP-based IFMIS to be implemented by 31 December 2019.
Prepare foreign exchange risk management policy	NEA	No resource requirement	Within 9 months of loan signing.
Resolve external audit issues relating to receivables, trade debtors, provisions for loans and advances, interest expenses and Government grant	NEA	No resource requirement	By 15 December 2017
Request revenue subsidy from Government to allow NEA to meet existing debt service coverage ratio covenants.	NEA and Government	No resource requirement for preparing subsidy request; Government budget requirement for revenue subsidy will vary year-to-year	Annually from 15 July 2017
Revised risk based internal audit manual is approved by the Audit Committee	NEA	No resource requirement	15 December 2017

Action	Responsibility	Resources	Timing
Generate the following operational and commercial reports: ▪ collation of all petitions to ETFC; ▪ quantification of electricity losses and summary of measures taken to reduce commercial losses; ▪ revenue collection performance; and ▪ electricity reliability indices.	NEA	No resource requirement	Annually from 15 July 2017

8. Little has changed with respect to NEA's financial performance in recent years. NEA continues to incur accounting losses and does not generate sufficient cash flow to meet its self-financing and investment requirements. NEA's balance sheet contains long-term debt that is unlikely to ever be repaid and equity capital that is overstated in value (due largely to impaired assets not written down to their recoverable values), financing over-valued fixed assets against which a commercial return is unlikely to ever be earned (and the depreciation of which is unlikely to be recovered through consumer tariffs).

9. Even with an assumption of annual tariff increases (and the one-off increase 19% in FY2016–17 that has already been implemented), the government's equity position in NEA is forecast to continue to erode as losses accumulate. The forecast net equity position by FY2025–26 is NRs8 billion, despite an assumption of new equity injection of NRs63 billion over the forecast period.

10. As concluded in previous assessments, significant balance sheet restructuring is required—a write-off of long-term debt and interest arrears, conversion of some long-term debt to equity, and a write-down (impairment) of the carrying value of fixed assets to reflect their condition (particularly in the case of some hydropower assets) and their revenue-earning potential.

11. Based on the Financial Management Action Plan outlined above and the review of NEA's historical and forecast financial performance, the following financial covenants are as follows:

(i) The Borrower shall ensure that by 15 July 2017, NEA prepares and submits to the Borrower a plan for further financial restructuring including (a) conversion of the Borrower's loans to NEA into equity; (b) conversion to equity of interest accrued and due on the Borrower's loans to NEA; (c) set-off of accumulated losses from paid-up capital and reserves; and (d) full payment or provisioning of municipal street light arrears.

(ii) The Borrower shall ensure that NEA maintain its own financial sustainability by maintaining a debt service coverage ratio of at least 1.2 (with debt service being computed following generally accepted accounting principles), a debt to equity ratio of no more than 75:25 and a current ratio of at least 1:1 by FY2019.

(iii) Every year, commencing from the financial year starting from 16 July 2017, the borrower shall ensure that NEA prepares its projected financial performance based on the prevailing electricity tariff, and estimates the additional resources required for NEA to fully achieve the debt service coverage ratio of 1.2 and submit a request to the government for subsidy. The government shall make such subsidy available in each year's annual budget, until such time the tariffs are revised to enable NEA to fully comply with the debt service coverage ratio covenant without any subsidy.

(iv) The Borrower shall ensure that:

(a) NEA is enabled to effectively manage its exposure to foreign exchange risk (by way of currency forward or swap contracts or any other means deemed appropriate by NEA); and

(v) The Borrower shall ensure that NEA adheres to the reporting requirements below:

(a) provides to ADB all petitions made to the Electricity Tariff Fixation Committee in relation to electricity tariff issues;
(b) provides ADB with an annual report detailing electricity losses on the Integrated Nepal Power System, including measures taken by the borrower to control and reduce commercial losses;
(c) provides ADB with an annual report detailing the borrower's revenue collection performance, including details of significant debtors and recovery measures taken; and
(d) regularly publishes on its website a range of electricity supply reliability indices including as a minimum System Average Interruption Duration Index (SAIDI), Customer Average Interruption Duration Index (CAIDI), and System Average Interruption Frequency Index (SAIFI).

B. Introduction

12. This document, prepared in accordance with ADB's guidelines[3] over the period September–October 2016, updates the FMA of NEA that was carried out as part of the ADB–funded South Asia Subregional Economic Cooperation (SASEC) Power System Expansion Project in 2014.[4] On the basis of discussions with NEA, this update principally revisits the Financial Management Internal Control and Risk Assessment prepared in 2014 and reviews NEA's financial performance and projections.

C. Project Description

13. The project will enhance the distribution capacity and improve reliability and quality of electricity supply in the Kathmandu Valley by reducing distribution system overloads and technical and commercial losses, and strengthen associated transmission lines. The project will also support implementation of other system efficiency upgrades and energy efficiency measures such as advanced grid operations software, distribution system automation, and smart metering. The main outputs of this project will be:

(i) Transmission grid capacity to feed the primary distribution networks for Kathmandu Valley strengthened;

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[3] ADB. 2005. *Financial Management and Analysis of Projects*. Manila; ADB. 2015. *Financial Management Technical Guidance Note – Financial Management Assessment.* Manila

[4] ADB. 2014. *NEP: South Asia Subregional Economic Cooperation Power System Expansion Project*. Manila.

(ii) Kathmandu Valley distribution network rehabilitated and capacity increased; and
(iii) Operational and financial performance of NEA distribution centers enhanced.

14. Additionally, capacity building of NEA staff to operate and manage advanced distribution system, intelligent energy network ("smart grid") technology, gender and social inclusion aspect in electricity access and end-user awareness programs will be conducted, and an energy sector gender equality and social inclusion (GESI) strategy and GESI operational guideline will be prepared and published.

D. Country and Sector Financial Management Issues

15. A detailed Nepal Public Financial Management (PFM) assessment was carried out and reported in August 2016 in relation to an education sector results-based lending program, only the key findings of which are presented here.[5]

16. The latest PEFA from 2015 confirmed many of the same challenges as the 2008 PEFA, and in particular challenges related to compliance with financial management rules and regulations despite progress in several areas by the implementation of interventions by the national PEFA secretariat supported by a Multi Donor Trust Fund (MTDF).

17. As part of the government's PFM Reform Strategy Phase 2, 2016–2025,[6] the government's detailed roadmap addresses various areas of weaknesses (as summarized in Table 2).

Table 2: Summary of Government of Nepal Public Financial Management Reform Strategy Actions FY2017–2025

No.	Government of Nepal PFM Reform Strategy Actions FY2016–2025	Responsible
1	Redesign the BMIS to record information on quarterly estimates of both the government and donor fund	MOF
2	Systems (BMIS, LMBIS, FMIS, RMIS and TSA) harmonized and interconnected by building interfaces	MOF
3	Allocate a separate budget code to identify the budgetary support flow donor-wise	MOF
4	Prepare internal control manual/ guideline by all line ministries and implement for enhancing degree of compliance with rules for processing and recording financial transactions	MOFALD
5	Develop capacity for producing NPSAS based consolidated financial statements on annual basis by all the line ministries and government central agencies	MOFALD
6	Improve current initiation for interfacing, interconnecting and harmonizing BMIS, LMBIS, FMIS, RMIS and TSA	FCGO
7	Implement NPSAS in all economic entities and enhance skill of PFM staffs for preparing NPSAS report through advanced training	FCGO
8	Upgrade and implement of CGAS in all spending units of the Government of Nepal	FCGO

[5] ADB. 2016. *NEP: Supporting School Sector Development Plan – Detailed Financial Management Assessment.* Manila.
[6] http://www.pefa.gov.np/wp-content/uploads/Second-Phase-PFM-Reform-Actionplan.pdf

No.	Government of Nepal PFM Reform Strategy Actions FY2016–2025	Responsible
9	Prepare and implement a comprehensive plan of action for reform of internal control system of the Government of Nepal	FCGO
10	Prepare and implement a comprehensive plan of action for Internal Auditing System reform	FCGO
11	Enhance the monitoring system of bank reconciliation of expenditures and revenue in FCGO through TSA and RMIS	FCGO
12	Establish a unit (Audit Committee) in all line ministries with assigned duties to settle the audit irregularities within stipulated time frame as per the existing legal provision	OAG
13	Establish Regional/Provincial Offices of OAG to facilitate the auditing and clearance of audit irregularities	OAG
14	Review and update the existing Risk based and Performance Audit Guidelines/Manual	OAG
15	Make legal provision that the Secretary (as a chief accounting officer) has authority to make clearance of irregularities with due investigation and recommendation	OAG
16	Trainings to auditors to develop capacity for risk-based and performance-based audit approach	OAG
17	Use ICT for audit documentation and follow up of audit report	OAG

BMIS = budget management information system, CGAS = Computerized Government Accounting System, FCGO = Financial Controller General's Office, FMIS = Financial Management Information System, ICT = information and communication technology, LMBIS = Line Ministry Budget Information System, MOF = Ministry of Finance, MOFALD = Ministry of Federal Affairs and Local Development, OAG = Office of Auditor General, PFM = public financial management, RMIS = revenue management information system, TSA = treasury single account.
Source: http://www.pefa.gov.np/wp-content/uploads/Second-Phase-PFM-Reform-Actionplan.pdf

1. Planning and Budgeting

18. The government budget is guided by a Medium-Term Expenditure Framework (MTEF). The MTEF is intended to translate policy targets into priority spending to meet policy objectives. The MTEF serves as a tool to maintain fiscal prudence at the aggregate level, allocation efficiency by ministries based on sector strategies and promote "value for money" by linking spending to results. The earthquake of April 2015 had an impact on the completion of MTEF (there has been no MTEF in the last two fiscal years). However, the preparation of a sectoral medium-term expenditure framework has started again and is guiding the budget process for FY2016-17. The MTEF is the main instrument for the government in aligning budget allocations to medium term policy targets and ensuring that current level of investments do not exceed future recurrent cost requirements to maintain the investments.

19. The budget is prepared through a clearly defined budget calendar but remains split between the National Planning Commission, which manages the MTEF and capital (development) expenditure budget process, and MOF, which manages annual recurrent expenditure and overall budgeting. The lack of full integration between the MTEF and annual budget preparation process results in parallel and disjoint activities. Accordingly, the annual budget continues to be prepared on an incremental basis without sufficient consideration for sector strategies and results reflected in the MTEF, and ensuring future recurrent cost requirements from current level of investment are considered in the budget process. More than 80% of expenditures in annual budgets are classified as priority expenditure. This indicates low

level of real prioritization and continued funding of non-core activities even during times of reduced funding levels.

20. The key challenges related to budget execution are weaknesses in expenditure prioritization, cash management, and late approval of annual plans, which impacts on development spending and delivery of sector program results. Analysis of implementation shows that late approval of annual work plans results in low level of budget execution for key development spending consisting on program interventions to deliver MTEF results.

21. The government's budget outturns compared to originally approved budget are broadly within initial budget ceilings indicating an acceptable level of budget credibility and fiscal discipline. Monitoring of budget execution, especially arrears, has improved over the years and in particular after the introduction of Treasury Single Account (TSA) system, which has improved cash management significantly among others through timely processing of payments and improved monitoring of available cash to accommodate expenditures as they occur. However, for some ministries, expenditure overruns as well as changes in composition of expenditure remain a challenge.

22. Even though formal systems have been developed for more effective budget execution and accounting, actual implementation indicate several deviations from financial regulations. Central systems continue to be upgraded (e.g. information systems), however progress in line ministries in the areas of budget execution, monitoring and budget discipline remains a challenge as well as lack of qualified staff at district levels to effectively manage budget execution within budget allocations.

23. Weaknesses in budget discipline and cash management are evidenced by budget overruns, outstanding aid reimbursement which in some fiscal years has constituted more than 2% of gross domestic product, extensive use of the overdraft facility, and turning to domestic borrowing towards the end of the fiscal year.

24. The legal framework provides line ministries with considerable virement powers. Significant budget reallocations take place across spending categories during the year. While this provides flexibility to line ministries to adjust according to changing circumstances, combined with weaknesses in internal controls, it results in weak accountability of resource use. Reallocation of unspent funds within capital spending has increased to an average of 30% of the total capital budget. The implementation of Program Based Budgeting (PBB)[7] is expected to improve alignment of spending to sector targets, help monitor budget implementation, and reduce expenditure variances. Among others, the introduction of Program Budget Heads more in compliance with Classification of the Functions of Government (COFOG) standard and use of activity codes has helped in budgeting and monitoring expenditure linked to subsector targets.

25. For some years, the government budget has not been approved until several months into the fiscal year and authorization to execute spending under the budget delayed with major shares of the budget only executed during the last months of the fiscal year. This has had impact on delivery of program results. The challenge is not execution of budget in total but execution of capital expenditures.

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[7] Program-based budgeting links budget allocation and expenditure to results. In practice, it means adding a new dimension to the budgeting process with program and activity codes i.e. in addition to the conventional functional and economic codes. The aim is to improve the efficiency and effectiveness of public spending by systematically linking budget allocations to results and making use of performance information to monitor efficacy and effectiveness of spending.

26. The Ministry of Finance (MOF) monitors ministries' budget execution through regular budget meetings and compares budget outturns as reported on by TSA with the information contained in the Budget Information System and the subsidiary Line Ministry Budget Information System (LMBIS). The review includes analysis of deviations from originally approved budget.

27. Budget and accounting information has become more transparent after the implementation of GFS classification and the TSA. Progress has been made in piloting the Nepal Public Sector Accounting Standards (NPSAS), which are compliant with international financial reporting standard (cash-based IPSAS) at the ministry level.

28. The rollouts of the TSA system for payment processing to all 75 districts have provided reliable and up-to-date information on budget execution. Fiscal reports are publicly available, however, the fiscal reports are not comprehensive and many autonomous agencies and donor projects operate outside the government budget and accounting framework. This is also the case for the education sector where approximately 18% of donor funding for government projects are not captured by the government budget and disbursed outside the government treasury system i.e. disbursements made directly to project accounts operated by the government agencies directly without passing through the TSA revenue accounts.

29. Under the government's PFM Reform strategy, processes are underway to revise the legal framework for an internal audit service as well as capacity building interventions by the PEFA secretariat to support Public Accounts Committee (PAC) to improve on process and procedures for follow up to Auditor General findings.

2. External Audit

30. The Auditor General starts the preparation of the annual audit plan in May of the current fiscal year.[8] The Auditor General is organized by departments headed by an Assistant Auditor General responsible for audit of a cluster of institutions/ministries and conduct institution wide audits (functional budget heads). There are 14 Assistant Auditor General's departments covering the 26 ministries of the government. The actual audit starts mid-August and continues to mid-February. The audit report is issued mid-April although the constitution does not set any requirement on date. The report is submitted to the President for onward submission to Parliament. Auditor General audits coverage and quality has improved over the years despite prevailing limitations in capacity to conduct performance audits. Auditor General conducts financial and compliance audits on a majority of government revenues and expenditures using INTOSAI-based standards.

3. Anticorruption

31. The Constitution of Nepal gives provisions for an independent judiciary with courts consisting of the Supreme Court, Appellate Court and District courts. In addition, it gives provisions for a number of constitutional bodies such as the Commission for the Investigation of Abuse of Authority (CIAA), Auditor General, Public Service Commission and Attorney General as key institutions to ensure that constitutional rights are adhered to and to address any misuse of public office by any government employee.

[8] The fiscal year for the Government of Nepal runs from July to June.

32. The Anti-Corruption Act of 1952, the new and revised act of 1960 with the establishment of an Anti-Corruption Department in the form of Special Police Department to control corruption and the formation of a Commission on Controlling Abuse of Authority in 1977 were the preface to the establishment of the CIAA in 1990. The Interim Constitution of Nepal 2007 put renewed emphasis on CIAA to investigate and probe cases against persons holding public office who are considered to have abused their authority by way of corruption or other forms of misconduct.

33. There is limited data available to measure the level of corruption in Nepal and what is available is either scant or outdated. However, data on perception of corruption are available from various survey data. As per the Corruption Perception Index (CPI) 2014 published by Transparency International, Nepal scored 2.9 and with one exception has stayed below 3 since 2004 (which means that Nepal is categorized a “corruption rampant” country. The Control of Corruption (CoC) Index 2014 published by World Bank, gives Nepal a score of 36.1 (out of 100) where lower values indicate weak governance ratings.

34. In the latest Global Corruption Barometer (GCB) Bi-annual Survey of Transparency International from 2013, 72% of respondents in Nepal stated that corruption has increased over the years. The GCB survey for Nepal also revealed political parties (90%) as highly corrupt institutions in Nepal, followed by public officials and civil servants (85%), police (80%), parliament (79%), and judiciary (77%).

E. Project Financial Management System

1. Overview of NEA’s Financial Management System and Institutional Context

35. The executing agency, the NEA, is an integrated utility 100% owned by the government. NEA is an autonomous corporate body formed under the Nepal Electricity Authority Act, 1984.

36. Operationally, NEA is split into eight directorates, each headed by a Deputy Managing Director. NEA is able to allocate costs against each of its directorates, but as yet is unable to ring-fence its accounts into functional business units. Expected improvements in functional reporting have not yet materialized; the planned World Bank supported ERP-based financial management reporting has not yet been implemented and further delays are expected (discussed further below).

37. In general, as noted in the 2014 FMA, NEA’s financial management system is acceptable and does not, in itself, pose undue risk from the project’s perspective. However, NEA’s current spreadsheet-based accounting system is inflexible, prone to errors and is inadequate for an entity of NEA’s size and complexity; NEA’s growing portfolio of large, externally funded capital projects is likely to strain the capacity and functionality of the existing system.

38. A further concern arises from the government’s preference that for all future loans NEA will borrow directly from development partners in foreign currency with a sovereign guarantee. This means that NEA will have direct and growing exposure to significant foreign exchange risk. At present, NEA is not able to deal in foreign exchange nor is it allowed to engage in any financial hedging. Loan covenants are proposed to address this risk.

2. Personnel, Accounting Policies and Procedures, External and Internal Audit

39. **Staffing.** NEA has broadly adequate staffing levels across its finance function. NEA reports no particular problems in recruiting qualified staff to key positions. NEA transfers a fulltime accountant to each Project Management Unit (PMU), and maintains overall coordination from the Project Management Directorate (PMD).

40. **Accounting policy and procedures.** All government agencies currently prepare entity financial reports in accordance with the Finance Procedures Act (1999) and Finance Procedures Rules (2007). NEA currently follows a mix of Nepal Accounting Standards and Generally Accepted Accounting Principles (GAAP). NEA is transitioning to International Financial Reporting Standards (IFRS) as part of the planned introduction of ERP-based IFMIS. Full financial statements are prepared on yearly basis and monthly reports are prepared for each project and budget center. In addition to statutory annual reporting, NEA prepares statements reporting actual versus budgeted expenditure. NEA's cash book is reconciled monthly.

41. NEA is in the process of updating its accounting manual, however this process has stalled to some extent with delays in the introduction of IFMIS. NEA has used a domestic chartered accounting firm and its own resources for this work, but advises that support from an international consultant will be required to complete this process (for which it has indicated that external funding will be sought).

42. **Foreign Currency Risk Management.** NEA does not have any capacity nor authorization from the Government to management foreign currency risk. Expectation of a growing exposure to foreign currency risk will require a change in policy, and loan covenants are proposed in this regard.

43. **Budgeting system.** Every budget center and project prepares an annual operational expenditure budget and a capital expenditure budget, and submits them to management for approval. Management reviews and finalizes the budget and NEA's board approves them. Variations are budgets typically required to be approved in advance.

44. For donor-assisted projects, the government allocates budgets annually. NEA is responsible for preparing its programs within the allocated budget.

45. **Payments.** NEA confirms that invoice-processing procedures provide for copies of purchase orders and receiving reports to be obtained directly from issuing departments, comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received, comparison of invoice quantities with those indicated on the receiving reports and checking the accuracy of calculations. NEA uses dedicated software for payroll and the competent authority approves a printed copy of the payroll.

46. **Cash and Bank.** Bank accounts are operated by two signatories (a project head and an accounts head). Bank and cash are reconciled on a monthly basis and unusual items are earmarked for management review.

47. **Safeguard over assets.** NEA used to fund and maintain a self-insurance reserve but no cash has been allocated to this fund for many years. Consequently, NEA is effectively uninsured.

48. **Debtor management.** External audit reports and the level of trade debtors suggest that NEA's debtor management policies and actions are relatively weak, with no apparent end-of-year analysis of recoverability. Most receivables relate to public sector entities, against whom NEA is unable to take punitive action for non-payment of electricity bills.

49. **Internal audit.** NEA has its own internal audit function, which undertakes audits on a quarterly basis. These internal audits follow international internal audit standards, but are transaction-based rather than systems-based. Internal audit reports regularly to the audit committee (at least quarterly) and follow-up actions are initiated. Internal audit is heading for a chartered accountant. A revised internal audit manual is before NEA's audit committee for approval. Various internal control procedures and processes have been reviewed and in some cases re-written with a focus on risk management and are also before the audit committee for approval.

50. **External audit** is carried out in accordance with the rules and procedures laid out by the Act of Parliament. NEA's accounts are audited by an external auditor appointed by the Auditor General. A qualified opinion was issued by the Auditor General in relation to FY2014–15 results (which were made available 15 months after the end of the financial year); qualifications were material and included questions around the carrying value of fixed assets and capital work in progress, long-standing accounts payable and receivable, lack of verification of long-term debt and incorrect interest calculation on long-term debt. Most of these issues have been repeated in audit reports in recent years. This is discussed further in Section 8.

51. **Project Financial Reporting and Auditing.** NEA's financial reporting and monitoring performance under existing loans have been improving. The audit of the audited project financial statements is conducted in accordance with the agreed terms of reference with the OAG and a complete set of APFS is submitted on a timely basis. Under both L2808 and L2587, audited project financial statements (APFS) were received on time within 6 months of the fiscal year end in FY2011–12, were delayed for FY2012–13 statements and received on time for the FY 2013–14 and FY 2014–15. APFS for the FY 2015–16 are not yet due. The audit opinion under L2587 and L2808 for the FY2014–15 are both qualified on account of an understatement of NEA contribution reflected as a receivable, which indicated lack of sufficient counterpart funds. The management letters under both loans also indicate various control and performance issues, including (i) slow project progress for some sub projects and excess expenditure in other subprojects; (ii) incorrect capitalization; and (iii) excessive operational expenditure.

52. **Financial Reporting Systems.** NEA has gradually been increasing automation across its revenue, finance and accounting functions. In anticipation of the company-wide introduction of ERP, NEA has been converting accounting databases maintained in Excel (general ledger, inventory, payroll and fixed assets) to Oracle databases. Full conversion has been achieved in approximately 100 of 200 permanent budget centers. ADB is supporting the introduction of the Empower consumer accounting system, with approximately 80% of customers (by revenue) already covered by this system.

53. Of concern, however, is the ongoing delays in the introduction of an ERP-based IFMIS. At the time of preparation of the previous NEA FMA in early 2014, the expectation was that the IFMIS, the first phase in a broad ERP implementation, would be nearing completion by late 2016. NEA floated a tender in July 2013 for a system integrator for the IFMIS and six firms were shortlisted in July 2014. However, only two bids were received and the World Bank ultimately rejected both bids. At the time of preparation of this FMA, the ERP project had stalled, with NEA reporting that it was unclear as to the World Bank's intentions for ongoing funding of the project.

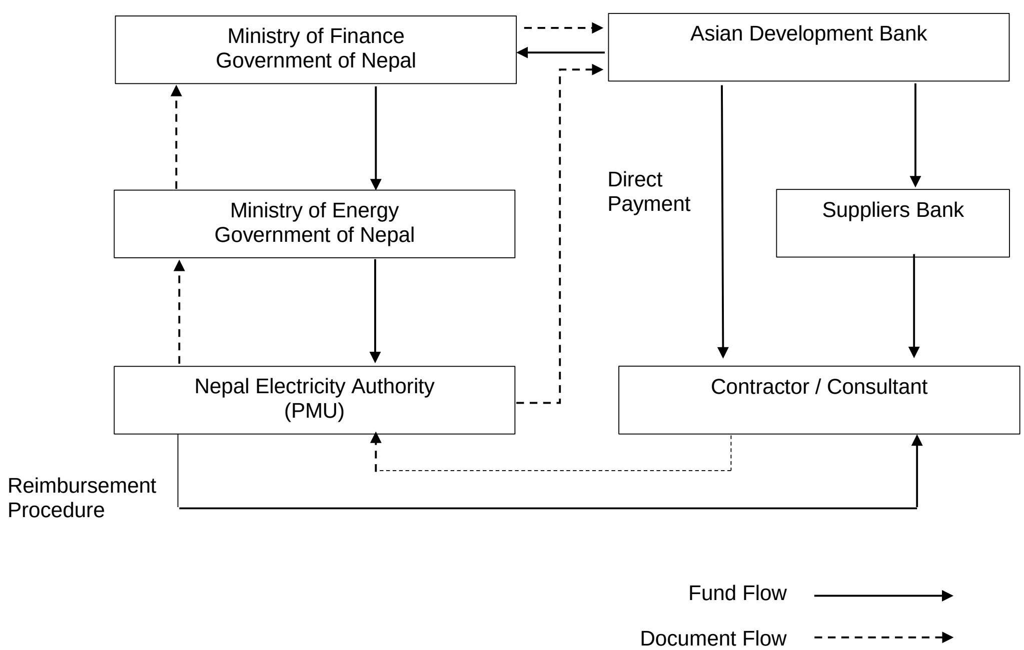
Further clarity is being sought from the World Bank and, if necessary, ADB will consider supporting the ERP project under a future loan.

54. NEA maintains separate project accounts and records by funding source for all expenditures incurred on the project, following accounting principles and practices prescribed by the Government of Nepal Financial Procedures Act (1999) and Financial Procedures Rules (2007). In accordance with current practice, the accrual basis of accounting will be adopted by the project.

3. Disbursement Arrangements and Funds Flow Mechanisms

55. Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time), and detailed arrangements agreed upon between the government, NEA and ADB. The direct payment mechanism is preferred. Supplier invoices will be sent to the PMU for initial verification in accordance with ADB's and NEA's procedures. The PMU accountant will prepare documentation for withdrawal of funds and the PMU Director will approve and submit to ADB with supporting documentation.

56. The proposed fund flow mechanism is as follows:



Source: Asian Development Bank.

F. Risk Description and Rating

57. **Risk Assessment.** Table 3 summarizes the 2014 financial management risk assessment for NEA and provides updates to the risk assessment and reports on the risk mitigation and management measures proposed at the time. The pre-mitigation risk assessment of NEA remains moderate overall.

Table 3: Financial Management Internal Control and Risk Assessment

Risk Description	Risk Assessment		Risk Mitigation Measures	
	2014 FMA	2016 Update	2014 FMA	2016 Update
Inherent Risk				
Country-Specific Risks	High	Moderate	GON counterpart funding (approximately $34 million for land, taxes and duties, other local costs, and physical and price contingencies) needs to be provided for in GON's budget. GON's retraction of approved budgets has caused considerable significant issues under ongoing loans.	No substantial change, although NEA reports that the budgetary allocation process and release of cash has improved to some extent in the last two years.
Financial Management Capacity. Limited capacity of financial management, particularly planning, has the potential to lead to delays and inadequacies in financial management of the Project.	Moderate	Moderate	The PMU will include an adequate level of human resourcing for technical and financial management and ensure their orientation and training in ADB's rules, procedures and reporting requirements. Project Steering Committee to have membership from NEA, MOE and ADB.	No change.
Corruption. Impropriety in relation to procurement of equipment.	High	High	Regular supervisory and review missions including financial management and procurement assessments.	No change.
Financial Management Information Systems. Limited automation of financial management systems could lead to inconsistencies and errors in financial reporting.	Moderate	Moderate	Under a World Bank supported institutional strengthening program, NEA plans to put in place an Integrated Financial Management Information System (IFMIS). The associated project is supposed to institute various improvements including accounting framework reform, reconciliation of bank accounts, physical verification of inventory (but not fixed assets), settlement of various other audit issues and full IFRS implement. NEA commented that implementation by the lead consultants had been very slow and the program has been forced to extend beyond the original December 2013 end date.	The IFMIS was proposed as the first phase of the ERP implementation. NEA floated a tender in July 2013 for a system integrator for the IFMIS and six firms were shortlisted in July 2014. However, only two bids were received and the World Bank ultimately rejected both bids. The ERP will accordingly be delayed beyond original expectations. In approximately half of its 200 budget centers, NEA has converted data in its general ledgers, inventory and payroll systems from spreadsheets to Oracle databases in anticipation of the future ERP requirement to

Risk Description	Risk Assessment		Risk Mitigation Measures	
	2014 FMA	**2016 Update**	**2014 FMA**	**2016 Update**
			The program also provides support for ERP implementation. An EOI was floated for system integration services for ERP in early August 2013 and six vendors were shortlisted. The ERP is to include finance, materials management, payroll and retirement benefits, employee claims, fixed assets and project accounting modules, at around 20-25 pilot locations around the country. Implementation is expected to take 2 years.	have all data in Oracle (and is in the process of this conversion for its fixed asset register). NEA will ensure the completion of the ERP by 31 December 2019.
Accounting Manuals. Out-of-date and inadequate accounting manuals could lead to inconsistencies and errors in financial reporting.	Moderate	Moderate	NEA has indicated that accounting manuals are adequate but that they will require updating as part of ERP implementation (and that they should have been updated by the consultants implementing the institutional reform program).	Some updating has taken place, particularly in anticipation of moving to IFRS as part of the IFMIS implementation. NEA has used a domestic CA firm and its own resources for this work, but advises that support from an international consultant / CA firm will be required to complete this process (for which it has indicated that World Bank or ADB support will be sought).
Risk Management. Weak risk management practices compromise NEAs' already weak financial position.	Moderate	Substantial	Appointment of an enterprise-wide risk manager and introduction of an appropriate risk management framework and risk management practices.	NEA has not created this position nor has it attempted to recruit a risk management expertise. However, it has strengthened its internal policies to reflect a risk-based approach and reports that it is now following a risk-based approach to internal auditing. NEA has also been sending 20-25 staff members to the Institute of Cost Accountants India (ICAI) for training in risk-based cost auditing for the last few years.
Overall Inherent Risk	**Moderate**	**Moderate**		
Control Risk				
PMU Staff. Personnel assigned to the PMU	Moderate	Moderate	NEA has significant and recent experience in	The PMD is now functional. Otherwise,

Risk Description	Risk Assessment		Risk Mitigation Measures	
	2014 FMA	**2016 Update**	**2014 FMA**	**2016 Update**
are inexperienced in ADB procedures and there can be frequent changes in project personnel. This presents the risk of Inadequate or poorly executed project financial management by the PMU.			implementing ADB loans. NEA will ensure that experienced personnel are seconded to the PMU. It will ensure that an orientation program is provided to inexperienced and newly appointed PMU personnel at the start of the project and will repeat it on regular basis or when there is a change in personnel. NEA to liaise regularly with ADB to ensure that ADB guidelines are followed. Interagency coordination at all levels to discuss the implementation progress and performance will be required. A clear authority and reporting structure to be agreed, clearly defined financial management and reporting duties to be defined for the PMU. The implementation of a Project Management Directorate (PMD) within NEA, discussed further below, will further mitigate financial management risk.	no change.
The key staff position for project financial management is the PMU Accounts Chief post. If the person appointed to this position has previous ADB experience then risk is low. This represents a risk to the project.	Moderate	Low	The Accounts Chief is MBA qualified and has experience in ADB procedures. Training will be initiated in ADB financial management procedures, especially procurement and disbursement procedures, for newly appointed PMU personnel at the start of the program. Project staff to be informed of their functional and performance responsibilities as part of their training. Typically, NEA does not transfer staff out of the PMU duration project implementation.	No change.

Risk Description	Risk Assessment		Risk Mitigation Measures	
	2014 FMA	**2016 Update**	**2014 FMA**	**2016 Update**
Project Accounting. The project will use NEA's accounting system, which adequately allows for the proper recording of project financial transactions. The Chart of Accounts is adequate to properly account for project activities and disbursement categories. The Charts of Accounts will be updated as part of ERP implementation but timing of ERP implementation is unclear and the project will need to rely on NEA's existing accounting system.	Moderate	Moderate	Project staff to be trained in the project accounting policies and procedures and relevant templates to be prepared and staff trained in their use before and during the project implementation. Necessary templates are prepared and staff is trained in using them before and during the project implementation.	A revised Chart of Accounts will soon (late 2016) be presented to NEA's board for approval. Otherwise, no change.
Internal Audit and Controls. Too few qualified internal audit staff in NEA compromises quality and timeliness of internal audit of project financial management. Inadequate internal control procedures, commensurate with the size of the company and nature of its business, with regard to purchase of and accounting for inventory, fixed assets and with regard to revenue recording. NEA claims to have adequate internal control procedures in place and appropriate segregation of duties, but audit reports have consistently highlighted issues in this regard, particularly with respect to fixed assets and inventories - it is apparent that the fixed asset register and inventory records are not kept up to date in a systematic way. Auditors continue to highlight issues with physical verification,	Substantial	Substantial	A complete review and, if necessary, overhaul of NEA's internal controls is required. It is expected that the final report of the consultants undertaking the institutional strengthening program, when available, will inform this review. If necessary, capacity building will be provided from loan proceeds.	A revised internal audit manual is before NEA's audit committee for approval. Various internal control procedures and processes have been reviewed and in some cases re-written with a focus on risk management and are also before the audit committee for approval. NEA now conducts an annual physical verification of its inventory (but not an assessment of net realizable value, as is required under the relevant accounting standard), but has not done so for fixed assets. NEA has committed to resolve ongoing audit issues by July 15, 2018.

Risk Description	Risk Assessment		Risk Mitigation Measures	
	2014 FMA	**2016 Update**	**2014 FMA**	**2016 Update**
realizable value transfers and adjustments, losses and capitalization.				
Information Systems. Changeover to ERP causes temporary financial management issues for NEA.	Moderate	Moderate	ADB financial procedures and books of accounts to continue to be maintained separately by the PMU. Implementation timing for ERP is unclear and is therefore anticipated that it will not be used for project financial management unless discussed with and approved by ADB at the time.	No change, although it is noted that NEA is gradually automating manner of its systems. For example, it is 4 years into a program to implement the "Empower" consumer accounting system (and reports that approximately 80% of revenue based is already covered by this system).
Treasury. Future direct borrowing from ADB and other development partners will expose NEA to significant foreign exchange risk. NEA has no experience in managing this risk and the Government currently does not allow NEA to engage in hedging.	[Not included]	Moderate	[Not included]	Although this risk will only become material in 3-5 years (as NEA draws down foreign currency loans from the Government), NEA needs to begin preparing to manage the risk by preparing risk management policy and ensuring that it can adopt hedging positions if desired. Covenants have been proposed in this regard.
Overall Control Risk	**Moderate**	**Moderate**		
Overall Risk	**Moderate**	**Moderate**		

ADB = Asian Development Bank, CA = Chartered Accountant, EOI = expression of interest, ERP = Enterprise Resource Planning, GON = Government of Nepal, MOE = Ministry of Energy, PMD = Project Management Directorate, PMU = Project Management Unit.

G. Proposed Action Plan

58. Based on this assessment, paragraph 7 above summarizes an action plan to address NEA's identified financial management weaknesses.

H. Conclusions

59. This FMA update concludes that some improvement in NEA's financial management has occurred, particularly in the areas of automation and internal policies concerning risk management. It was noted that NEA's experience in managing ADB-funded projects has increased, and the oversight provided by the PMD has proved to be particularly successful. Ongoing delays in the implementation of an ERP-based financial information system is cause for concern as other anticipated improvements in NEA's financial reporting and management planned by NEA are reliant on the introduction of ERP.

I. Nepal Electricity Authority Historical Financial Performance

60. Little has changed with respect to NEA's financial performance in recent years (summarized in Table 4 and shown in detail in Appendix 1). The last tariff increase that NEA was granted was in FY2012, and the 20% average increase permitted at that stage was sufficient to allow NEA to generate positive EBITDA in years FY2012–13, FY2013-14 and FY2014–15. However, the tariff increase was insufficient to allow NEA to meet interest costs on long-term debt and to cover depreciation costs. Consequently, NEA's accumulated losses had increased to around NRs38 billion by the end of FY2015–16, despite having been converted to equity (that is, "reset" to zero) in FY2011–12. NEA has not been able to meet any financial covenants imposed by ADB or other development partners. The government's 2012 Financial Restructuring Plan for NEA has now stalled, and was largely focused on cleaning NEA's balance sheet rather than addressing the company's ongoing financial performance.[9]

61. Recent external audit reports indicate that NEA is significantly understating interest on long-term debt (interest is calculated on outstanding loan balances after deductions for notional principal repayments, even though principal payments are never made).[10] Net accounting losses reported by NEA are therefore understated (however it is not possible to calculate the extent to which loss is understated from the information provided by NEA, nor is it clear that NEA is aware of the full extent of understatement of interest expenses).

62. Further, the nature of many of the audit qualifications suggests that NEA's balance sheet can no longer be considered as presenting a cogent picture of the company's financial position:

(i) there has been no physical verification of fixed assets or capital work in progress (NRs86 billion and NRs58 billion respectively at the end of FY2014–15);
(ii) no impairment test appears to have been carried out on fixed assets or capital work in progress;
(iii) in-house feasibility studies (NRs0.8 billion) have been recorded as capital work in progress rather than expensed;
(iv) no evidence of aging analysis of receivables was made available (NRs10 billion at the end of FY2014–15)
(v) no documentation was made available to support the carrying balance of long-term loans (NRs98 billion at the end of FY2014–15); and
(vi) the status of sundry creditors (NRs46 billion at the end of FY2014–15) was not verifiable.

63. To summarize, NEA's balance sheet contains long-term debt that is unlikely to ever be repaid and equity capital that is overstated in value (due to significant and growing accumulated losses), financing over-valued fixed assets against which a commercial return is unlikely to ever be earned (and the depreciation of which is unlikely to be recovered through consumer tariffs). As concluded in previous assessments, significant balance sheet restructuring is required—a

[9] In January 2012, the government approved parts of the Financial Restructuring Plan prepared by NEA and a government-appointed taskforce. The following recommendations have been adopted:
(i) increase NEA's authorized share capital from NRs30 billion to NRs75 billion;
(ii) write-off accumulated loss up to FY2010–11 amounting to NRs12 billion;
(iii) capitalize interest accrued on loans up to FY2010–11, amounting to NRs9.6 billion;
(iv) grants received by the government to be provided to NEA as equity; and
(v) reduce the interest rate on any new local currency on-lending to NEA from 8% to 5%.

[10] For the first time in many years, a loan repayment of NRs468 million was made in FY2014–15.

write-off of long-term debt and interest arrears, conversion of some long-term debt to equity, and a write-down (impairment) of the carrying value of fixed assets to reflect their condition (particularly in the case of some hydropower assets) and their revenue-earning potential.

Table 4: Nepal Electricity Authority Summarized Financial Performance 2012-2016

		2012	2013	2014	2015	2016
Item	**FY[a]**		**Audited**			**Prov**
Commercial						
Electricity sales	*(GWh)*	3,042	3,161	3,406	3,740	3,716
Average revenue per unit sold	*(NPR/kWh)*	6.7	7.9	8.0	8.1	8.6
Average cost per unit sold [b]	*(NPR/kWh)*	8.1	8.6	9.7	9.2	11.0
Financial						
Revenue	*(NPR m)*	21,784	27,223	30,363	33,285	34,710
Operating expenses	*(NPR m)*	18,144	20,612	24,911	27,408	33,649
Operating profit	*(NPR m)*	3,640	6,611	5,451	5,877	1,061
Overheads	*(NPR m)*	5,630	3,400	4,781	3,389	3,459
Depreciation	*(NPR m)*	3,176	3,229	3,297	3,471	3,621
Finance costs incl FX	*(NPR m)*	4,783	3,388	4,182	4,147	5,776
Net profit before tax	*(NPR m)*	(9,949)	(3,405)	(6,808)	(5,130)	(11,795)
Capital expenditure	*(NPR m)*	11,315	9,938	8,905	20,968	14,338
Operating cash flow	*(NPR m)*	(1,105)	2,450	3,349	6,613	1,022
Net cash flow	*(NPR m)*	681	(342)	1,554	4,098	853
Interest and royalty arrears	*(NPR m)*	20,965	24,761	28,508	33,170	36,026
Current assets	*(NPR m)*	16,647	18,989	21,641	27,502	29,022
Current liabilities	*(NPR m)*	44,199	47,937	55,597	65,052	74,447
Fixed assets	*(NPR m)*	120,415	130,524	143,521	162,042	175,409
Long-term liabilities	*(NPR m)*	68,909	75,035	82,692	98,253	110,483
Capital and reserves	*(NPR m)*	23,955	26,541	26,874	26,239	19,501
Return on average net fixed assets [c]		-2%	4%	1%	3%	-3%
Debt-service coverage ratio [d]		-0.51	0.79	0.06	0.42	-0.33
Debt:equity ratio [e]		74:26	74:26	75:25	79:21	85:15
Receivable days		122	114	117	120	122

FX = foreign exchange GWh = gigawatt-hour, kWh = kilowatt-hour, Prov = provisional/estimated
[a] "FY" denotes the fiscal year ending on 15 July of the calendar year indicated.
[b] Includes cost of sales, operating costs, administration costs and depreciation. Finance costs are excluded.
[c] Calculated as earnings before interest, tax and depreciation divided by closing net fixed assets.
[d] Calculated as earnings before interest, tax and depreciation divided by interest and principal payments due.
[e] Long-term debt divided by equity net of accumulated profits/losses.
Source: Asian Development Bank staff estimates.

J. Nepal Electricity Authority Financial Projections

64. Ten-year financial projections for NEA have been updated to incorporate NEA's most recent financial results plus revised capital expenditure and financing plans. Full pro forma financial statements are provided in Appendix 2 and are summarized in Table 5.

65. A core assumption retained in these projections is an annual (average) nominal tariff increase of 7% per annum, in line with domestic inflation and in general accordance with guidance received from the Electricity Tariff Fixation Committee (ETFC) that an automatic tariff

adjustment mechanism would be developed during FY2016–17 for implementation during the following year. This automatic adjustment is in addition to the 19% (average) tariff increase granted in July 2016 and implemented in September 2016.

66. NEA’s official electricity sales forecast up to FY2022–23 was adopted for purposes of projections. Beyond FY2022–23 and in the absence of a long-term capital investment program and committed funding sources, no increase in electricity sales was modelled. An assessment was made of the capital investment in transmission and distribution that NEA would need to make to meet forecast electricity demand growth over the period. This required expenditure was then compared with committed expenditure, and the difference was scaled to a level considered to be ambitious but achievable (approximately \$80 million per annum between FY2016–17 and FY2022–23, funded 80% by debt and 20% by equity).

67. In the absence of better information, NEA’s practice of calculating interest expense against notional long-term debt balances (that is, debt balances after scheduled principal repayments have been deducted from outstanding debt even though repayments are not made) has been adopted (for debt existent at the end of FY2015–16) for these projections. It is noted that the FY2015–16 balance sheet indicates total long-term debt of NRs110 billion, whereas the notional debt schedule (upon which interest expenses are calculated by NEA) indicates total long-term of around NRs68 billion. This suggests that interest expense is understated by as much as 100% in FY 2015–16, underscoring the unreliability of NEA’s financial statements below the EBITDA level. The projections assume that NEA pays interest expenses on long-term debt (notional interest on pre-FY2016–17 debt and actual interest on new debt) if it is able to do so (which is the case from FY2019–20 onwards) but that no principal repayments are made. On this basis and in light of the capital expenditure assumptions outlined in the previous paragraph, long-term debt is forecast to increase from its current level of NRs110 billion to NRs300 billion by the end of the forecast period (FY2025–26).

68. NEA has indicated that it expects to draw down on loans denominated in foreign exchange of approximately \$855 million equivalent (at current exchange rates) over the next five years. Repayment obligations on these loans are expected to ramp up from FY2020–21. Foreign exchange losses on loan balances have been modelled accordingly (on the basis of an assumption of purchasing power parity), with foreign exchange losses increasing to around \$30 million per annum by FY2025–26.

69. Even with an assumption of annual tariff increases (and the one-off increase in FY2016–17 that has already been implemented), the government’s equity position in NEA continues to erode over the forecast period as losses accumulate. The forecast net equity position by FY 2025–26 is NRs22 billion, despite an assumption of new equity injection of NPR63 billion over the forecast period.

70. Table 5 includes projections of selected financial metrics–-return on net fixed assets, debt service coverage ratio, debt-to-equity ratio and receivable days.[11] Historically, NEA has made low single digit returns against net fixed assets, however the modelled annual tariff increases would see this return increase to around 8% by the end of the forecast period. Debt service coverage ratio has been and will continue to be well below covenanted levels, even using NEA’s artificially low assessment of interest expenses in the denominator of the ratio (and in this context the projected increase to 1.2 by the end of the forecast period should be treated

[11] For simplicity, return on net fixed assets and debt service coverage ratio have been calculated using EBITDA as the numerator, rather than operating cash flow.

with caution). The continued erosion of the government's equity in NEA sees the debt equity ratio increasing to 72:28 by the end of the forecast period. No material improvement in collection performance has been modelled, with receivables days continuing to sit at around four months.

Table 5: Nepal Electricity Authority Summarized Financial Projections 2017-2026 [a]

Item	FY[b]	2017	2018	2019	2020	…2026
		Forecast				
Commercial						
Electricity sales	*(GWh)*	4,174	4,977	6,192	6,712	7,850
Average revenue per unit sold	*(NPR/kWh)*	10.0	10.7	11.4	12.2	18.3
Average cost per unit sold [c]	*(NPR/kWh)*	14.2	13.4	11.8	12.2	16.2
Financial						
Revenue	*(NPR m)*	44,568	56,282	73,895	85,117	146,634
Operating expenses	*(NPR m)*	51,135	57,190	61,563	68,716	107,406
Operating profit	*(NPR m)*	(6,567)	(908)	12,332	16,401	39,228
Overheads	*(NPR m)*	4,184	4,100	4,422	4,782	7,187
Depreciation	*(NPR m)*	4,082	5,602	7,141	8,667	12,863
Finance costs incl FX	*(NPR m)*	3,774	5,347	7,255	9,137	17,930
Net profit before tax	*(NPR m)*	(18,606)	(15,956)	(6,486)	(6,185)	1,248
Capital expenditure	*(NPR m)*	44,515	45,235	39,692	34,556	0
Operating cash flow	*(NPR m)*	(6,400)	(8,635)	(946)	7,914	17,341
Net cash flow	*(NPR m)*	(5,444)	(6,750)	948	12,814	17,341
Interest and royalty arrears	*(NPR m)*	39,800	45,147	52,182	61,106	61,106
Current assets	*(NPR m)*	28,030	26,982	37,496	56,594	144,083
Current liabilities	*(NPR m)*	87,023	94,444	102,189	113,693	125,699
Fixed assets	*(NPR m)*	215,842	255,476	288,026	313,915	304,204
Long-term liabilities	*(NPR m)*	143,828	178,755	210,489	240,196	300,313
Capital and reserves	*(NPR m)*	13,021	9,259	12,844	16,620	22,276
Return on average net fixed assets [d]		-11%	-4%	5%	5%	11%
Debt-service coverage ratio [e]		-1.68	-0.58	0.61	0.70	1.28
Debt:equity ratio [f]		68:32	69:31	70:30	70:30	72:28
Receivable days		120	120	120	120	120

FX = foreign exchange, GWh = gigawatt-hour, kWh = kilowatt-hour.
[a] Selected years shown for brevity.
[b] "FY" denotes the fiscal year ending on 15 July of the calendar year indicated.
[c] Includes cost of sales, operating costs, administration costs and depreciation. Finance costs are excluded.
[d] Calculated as earnings before interest, tax and depreciation divided by closing net fixed assets.
[e] Calculated as earnings before interest, tax and depreciation divided by interest and principal payments due.
[f] Long-term debt divided by equity net of accumulated profits/losses.
Source: Asian Development Bank staff estimates.

71. This assessment concludes that NEA's balance sheet does not present a cogent picture of NEA's true financial position and, until it has been restructured to reflect the impaired value of NEA's net assets and a reduction of debt to a manageable level, NEA's reported financial performance below the EBITDA level should not be relied upon. Until such time as the government agrees to meaningful restructuring, it is recommended that focus be placed on improving NEA's operational and technical performance (for example, ensuring that operational cash surpluses are applied to proactive asset maintenance programs rather than being diverted to service government loans). However, covenants have also been proposed to move the government towards further restructuring of NEA's balance sheet and to draw attention to existing debt service coverage ration covenants.

72. As noted above, the government's decision to pass new loans to NEA as foreign currency loans exposes NEA to notional foreign exchange risk, and NEA will need to be enabled to manage this risk. Covenants are proposed in this context.

Appendix 1: Nepal Electricity Authority Historical Financial Statements

INCOME STATEMENT (NRs million)

	2012	2013	2014	2015	2016
		Audited			Prov
Revenues					
Electricity sales	20,089	25,355	28,206	30,169	31,545
Other operating revenue	1,695	1,868	2,157	3,116	3,165
Total Operating Revenues	**21,784**	**27,223**	**30,363**	**33,285**	**34,710**
Operating Expenses					
Generation	1,148	1,624	1,887	1,384	1,464
Power purchases IPPs	6,938	7,891	8,977	8,462	9,699
Power purchases India	5,010	5,681	8,065	10,748	14,537
Transmission	421	438	519	580	684
Distribution	3,685	4,088	4,575	5,341	6,267
Electrification	0	0	0	0	0
Royalties	942	890	889	892	998
Total Operating Expenses	**18,144**	**20,612**	**24,911**	**27,408**	**33,649**
Gross profit	**3,640**	**6,611**	**5,451**	**5,877**	**1,061**
Overhead Expenses					
Administrative staff costs	687	1,114	1,106	947	950
Engineering staff costs	94	95	109	117	120
Other administrative expenses	193	78	24	275	339
Other provisions and write-offs	4,656	2,113	3,542	2,050	2,050
Total Overhead Expenses	**5,630**	**3,400**	**4,781**	**3,389**	**3,459**
EBITDA	**(1,990)**	**3,211**	**670**	**2,488**	**(2,398)**
EBITDA %	(0)	0	0	0	(0)
Depreciation and amortization	3,176	3,229	3,297	3,471	3,621
EBIT	**(5,166)**	**(18)**	**(2,627)**	**(983)**	**(6,018)**
Interest on long term borrowings	3,885	4,040	4,235	4,670	4,896
(Gain)/loss on foreign exchange	897	(652)	(53)	(523)	880
Net Profit/ (Loss) Before Tax	**(9,949)**	**(3,405)**	**(6,808)**	**(5,130)**	**(11,795)**
Corporate tax	0	0	0	0	0
Provision for tax	0	0	0	0	0
Deferred tax expenses recognised	0	0	0	0	0
Prior years (income)/expense reclassification	(81)	34	(192)	(383)	(50)
Insurance fund contributions	0	0	0	0	0
Profit/(Loss) for the year	**(9,949)**	**(3,371)**	**(7,000)**	**(5,513)**	**(11,845)**
Profit Available for Appropriation	(9,868)	(3,405)	(6,808)	(5,130)	(11,795)
Retained Earnings	1	(9,867)	(13,238)	(20,239)	(25,751)
Accumulated Loss Adjustment	0	0	0	0	0
Transfer to Balance Sheet	(9,867)	(13,238)	(20,239)	(25,751)	(37,596)

Source: Nepal Electricity Authority.

SOURCE AND APPLICATIONS OF FUNDS STATEMENT (NPR million)

	2012	2013	2014	2015	2016
		Audited			Prov
A. Cash Flow from Operating Activities					
Operating profit / (loss) before income tax equivalents	(9,949)	(3,405)	(6,808)	(5,130)	(11,795)
Adjustment for :					
Depreciation	3,176	3,229	3,297	3,471	3,621
Amortisation	0	0	0	0	0
Interest and other investment income	(323)	(323)	0	0	0
(Gain) / loss on sale of property, plant and equipment	0	0	0	0	0
(Gain) / loss on foreign exchange	897	(652)	(53)	(523)	880
Street lighting dues and other write-offs	550	0	0	0	0
Prior year adjustments					
Change in assets and liabilities					
(Increase)/decrease in trade receivables	179	(1,237)	(1,086)	(912)	(622)
(Increase)/decrease in inventories	(531)	(9)	184	(310)	(154)
(Increase)/decrease in other receivables and payments	(1,246)	922	(344)	(138)	(303)
Increase/(decrease) in trade and other payables	27	86	871	3,444	4,488
(Increase)/decrease in interest and royalty arrears	2,020	1,683	3,747	4,662	2,856
Net cash from operating activities	**(1,105)**	**2,450**	**3,349**	**6,613**	**1,022**
B. Cash From from Investment Activities					
Net additions to property, plant and equipment	(3,905)	(3,521)	(3,774)	(6,137)	(4,645)
Purchase of investments	(194)	(1,758)	(5,481)	(5,263)	(2,650)
Sale of investments	0	0	0	0	0
Net additions to capital work in progress	(7,073)	(9,938)	(7,151)	(11,058)	(9,693)
Income from interest and other investments	323	323	0	0	0
Net cash from investment activities	**(10,850)**	**(14,894)**	**(16,406)**	**(22,458)**	**(16,988)**
C. Cash Flow from Financing Activities					
Proceeds from share capital	5,728	5,942	7,146	4,764	5,107
Proceeds from long term borrowing	6,881	6,125	7,657	15,561	12,230
Repayment of long-term borrowing	0	0	0	0	(468)
Increase (decrease) in consumer contribution	28				
Reserve and surplus	0	34	(192)	(383)	(50)
Net cash from financing activities	**12,637**	**12,102**	**14,611**	**19,943**	**16,819**
Net Increase/(Decrease) in Cash and Cash Equivalents	**681**	**(342)**	**1,554**	**4,098**	**853**
Cash opening balance	2,017	2,697	4,715	6,122	10,622
Cash Increase /(decrease) for year	681	(342)	1,554	4,098	853
Cash closing closing balance	2,697	2,355	6,269	10,219	11,475

Source: Nepal Electricity Authority.

BALANCE SHEET (NPR million)

	2012	2013	2014	2015	2016
		Audited			Prov
ASSETS					
Current Assets					
Cash and fixed bank deposits	2,697	4,715	6,122	10,622	11,063
Trade and other receivables	6,693	7,930	9,016	9,927	10,550
Prepayments, advances, loans and deposits	4,223	3,301	3,645	3,783	4,086
Inventories	3,034	3,043	2,859	3,170	3,324
Total Current Assets	**16,647**	**18,989**	**21,641**	**27,502**	**29,022**
Non-Current Assets					
Gross fixed assets	117,476	117,476	119,230	129,140	133,785
Less: accum. depreciation	32,015	35,356	38,765	42,702	46,322
Net fixed assets	85,461	83,873	84,239	86,439	87,463
Capital work-in-progress	29,905	39,843	46,994	58,052	67,745
Other assets and investments	5,049	6,808	12,288	17,551	20,201
Total Non-Current Assets	**120,415**	**130,524**	**143,521**	**162,042**	**175,409**
Total Assets	**137,062**	**149,513**	**165,162**	**189,544**	**204,431**
LIABILITIES					
Current Liabilities					
Bank OD / short term loans	3,500	1,200	700	0	0
Trade creditors and other payables	8,172	8,258	9,129	12,573	17,061
Interest arrears	20,965	24,761	28,508	33,170	36,026
Provisions	11,561	13,717	17,259	19,309	21,359
Total Current Liabilities	**44,199**	**47,937**	**55,597**	**65,052**	**74,447**
Long Term Borrowings	**68,909**	**75,035**	**82,692**	**98,253**	**110,483**
Capital and Reserves					
Share capital	31,422	37,365	44,511	49,275	54,382
General reserves	1,706	1,721	1,909	2,022	2,022
Retained earnings	(9,867)	(13,238)	(20,239)	(25,751)	(37,596)
Deferred Tax	693	693	693	693	693
Total Capital and reserves	**23,955**	**26,541**	**26,874**	**26,239**	**19,501**
Total Liabilities and Equity	**137,063**	**149,513**	**165,162**	**189,544**	**204,431**

Source: Nepal Electricity Authority.

Appendix 2: NEA Financial Projections

INCOME STATEMENT (NPR million)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
					Forecast					
Revenues										
Electricity sales	41,755	53,251	70,892	82,168	95,157	109,809	117,474	125,617	134,331	143,655
Other operating revenue	2,813	3,031	3,003	2,949	2,994	2,982	2,975	2,984	2,980	2,980
Total Operating Revenues	**51,751**	**44,568**	**56,282**	**73,895**	**85,117**	**98,151**	**112,791**	**120,449**	**128,601**	**137,311**
Operating Expenses										
Generation	2,299	3,482	4,815	5,745	6,548	7,661	8,275	8,754	9,366	10,022
Power purchases IPPs	27,573	33,984	36,504	39,144	41,910	44,807	47,840	50,145	51,649	53,199
Power purchases India	11,944	8,702	7,267	8,568	10,074	10,578	11,107	11,662	12,245	12,857
Transmission	854	1,372	2,050	2,964	3,923	4,795	5,804	6,471	6,924	7,409
Distribution	7,278	8,379	9,568	10,840	12,218	13,736	15,406	17,280	19,381	21,737
Electrification	0	0	0	0	0	0	0	0	0	0
Royalties	1,187	1,270	1,359	1,454	1,556	1,665	1,781	1,906	2,040	2,182
Total Operating Expenses	**51,111**	**51,135**	**57,190**	**61,563**	**68,716**	**76,231**	**83,241**	**90,214**	**96,217**	**101,605**
Gross profit	**640**	**(6,567)**	**(908)**	**12,332**	**16,401**	**21,921**	**29,550**	**30,235**	**32,384**	**35,706**
Overhead Expenses										
Administrative staff costs	1,103	1,270	1,450	1,643	1,852	2,082	2,335	2,619	2,938	3,295
Engineering staff costs	139	160	183	208	234	263	295	331	371	416
Other administrative expenses	394	453	518	587	661	743	834	935	1,049	1,176
Other provisions and write-offs	2,547	2,216	2,271	2,345	2,277	2,298	2,307	2,294	2,299	2,300
Total Overhead Expenses	**4,180**	**4,184**	**4,100**	**4,422**	**4,782**	**5,024**	**5,386**	**5,770**	**6,179**	**6,657**
EBITDA	**(3,540)**	**(10,751)**	**(5,007)**	**7,910**	**11,619**	**16,897**	**24,164**	**24,465**	**26,205**	**29,050**
EBITDA %	(0)	-24%	-9%	11%	14%	17%	21%	20%	20%	21%
Depreciation and amortization	4,082	5,602	7,141	8,667	9,674	10,651	12,666	12,926	12,863	12,863
EBIT	**(7,621)**	**(14,833)**	**(10,609)**	**769**	**2,952**	**7,222**	**13,512**	**11,798**	**13,279**	**16,187**
Interest on long term borrowings	3,774	5,347	7,035	8,924	9,732	10,451	11,035	11,299	11,572	11,878
(Gain)/loss on foreign exchange	0	0	220	213	1,867	1,969	2,802	5,446	5,741	6,052
Net Profit/ (Loss) Before Tax	**(11,393)**	**(18,606)**	**(15,956)**	**(6,486)**	**(6,185)**	**(4,377)**	**1,093**	**(2,038)**	**(3,466)**	**(1,126)**
Corporate tax	0	0	0	0	0	0	0	0	0	0
Provision for tax	0	0	0	0	0	0	0	0	0	0
Deferred tax expenses recognised	0	0	0	0	0	0	0	0	0	0
Prior years (income)/expense reclassification	0	0	0	0	0	0	0	0	0	0
Insurance fund contributions	0	0	0	0	0	0	0	0	0	0
Profit/(Loss) for the year	**(11,393)**	**(18,606)**	**(15,956)**	**(6,486)**	**(6,185)**	**(4,377)**	**1,093**	**(2,038)**	**(3,466)**	**(1,126)**
Profit Available for Appropriation	(11,393)	(18,606)	(15,956)	(6,486)	(6,185)	(4,377)	1,093	(2,038)	(3,466)	(1,126)
Retained Earnings	(37,596)	(37,596)	(56,202)	(72,159)	(78,645)	(84,830)	(89,207)	(88,114)	(90,152)	(93,618)
Accumulated Loss Adjustment	0	0	0	0	0	0	0	0	0	0
Transfer to Balance Sheet	(48,989)	(56,202)	(72,159)	(78,645)	(84,830)	(89,207)	(88,114)	(90,152)	(93,618)	(94,744)

Source: Asian Development Bank staff estimates.

SOURCE AND APPLICATIONS OF FUNDS STATEMENT (NPR million)

Item	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						Forecast				
A. Cash Flow from Operating Activities										
Operating profit / (loss) before income tax equivalents	(18,606)	(15,956)	(6,486)	(6,185)	(4,377)	1,093	(2,038)	(3,466)	(1,126)	1,248
Adjustment for :										
Depreciation	4,082	5,602	7,141	8,667	9,674	10,651	12,666	12,926	12,863	12,863
Amortisation	0	0	0	0	0	0	0	0	0	0
Interest and other investment income	0	0	0	0	0	0	0	0	0	0
(Gain) / loss on sale of property, plant and equipment	0	0	0	0	0	0	0	0	0	0
(Gain) / loss on foreign exchange	0	0	220	213	1,867	1,969	2,802	5,446	5,741	6,052
Change in assets and liabilities										
(Increase)/decrease in trade receivables	(3,190)	(3,783)	(5,805)	(3,710)	(4,274)	(4,821)	(2,522)	(2,680)	(2,867)	(3,068)
(Increase)/decrease in inventories	(111)	(478)	(1,548)	(1,160)	(1,398)	(446)	(921)	(1,793)	0	0
(Increase)/decrease in other receivables and payments	(1,150)	(1,441)	(2,212)	(1,414)	(1,629)	(1,837)	(961)	(1,021)	(1,093)	(1,169)
Increase/(decrease) in trade and other payables	8,802	2,074	709	2,580	2,796	2,226	2,331	1,872	1,366	1,415
(Increase)/decrease in interest and royalty arrears	3,774	5,347	7,035	8,924	0	0	0	0	0	0
Net cash from operating activities	**(6,400)**	**(8,635)**	**(946)**	**7,914**	**2,661**	**8,835**	**11,357**	**11,284**	**14,884**	**17,341**
B. Cash From from Investment Activities										
Net additions to property, plant and equipment	(18,623)	(60,314)	(45,198)	(54,451)	(17,355)	(35,880)	(69,854)	0	0	0
Purchase of investments	0	0	0	0	0	0	0	0	0	0
Sale of investments	0	0	0	0	0	0	0	0	0	0
Net additions to capital work in progress	(25,892)	15,079	5,507	19,895	(9,374)	10,949	59,582	0	0	0
Income from interest and other investments	0	0	0	0	0	0	0	0	0	0
Net cash from investment activities	**(44,515)**	**(45,235)**	**(39,692)**	**(34,556)**	**(26,729)**	**(24,931)**	**(10,272)**	**0**	**0**	**0**
C. Cash Flow from Financing Activities										
Proceeds from share capital	12,126	12,194	10,072	9,962	6,746	4,061	3,514	0	0	0
Proceeds from long term borrowing	33,345	34,927	31,514	29,494	20,119	9,362	6,758	0	0	(0)
Repayment of long-term borrowing	0	0	0	0	0	0	0	0	0	0
Reserve and surplus	0	0	0	0	0	0	(0)	0	(0)	(0)
Net cash from financing activities	**45,471**	**47,121**	**41,586**	**39,456**	**26,865**	**13,423**	**10,272**	**0**	**0**	**(0)**
Net Increase/(Decrease) in Cash and Cash Equivalents	**(5,444)**	**(6,750)**	**948**	**12,814**	**2,797**	**(2,674)**	**11,357**	**11,284**	**14,884**	**17,341**
Cash opening balance	11,063	5,619	(1,131)	(182)	12,632	15,428	12,755	24,112	35,396	50,279
Cash Increase /(decrease) for year	(5,444)	(6,750)	948	12,814	2,797	(2,674)	11,357	11,284	14,884	17,341
Cash closing closing balance	5,619	(1,131)	(182)	12,632	15,428	12,755	24,112	35,396	50,279	67,620

Source: Asian Development Bank staff estimates.

BALANCE SHEET (NPR million)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
					Forecast					
ASSETS										
Current Assets										
Cash and fixed bank deposits	5,619	(1,131)	(182)	12,632	15,428	12,755	24,112	35,396	50,279	67,620
Trade and other receivables	13,740	17,523	23,328	27,038	31,313	36,134	38,656	41,336	44,203	47,272
Prepayments, advances, loans and deposits	5,236	6,677	8,889	10,303	11,932	13,769	14,731	15,752	16,844	18,013
Inventories	3,434	3,912	5,461	6,621	8,018	8,464	9,385	11,178	11,178	11,178
Total Current Assets	**28,030**	**26,982**	**37,496**	**56,594**	**66,692**	**71,122**	**86,883**	**103,662**	**122,505**	**144,083**
Non-Current Assets										
Gross fixed assets	152,408	212,722	257,920	312,371	329,726	365,606	435,461	435,461	435,461	435,461
Less: accum. depreciation	50,404	56,006	63,147	71,814	81,489	92,140	104,806	117,732	130,595	143,458
Net fixed assets	102,004	156,716	194,773	240,557	248,238	273,466	330,654	317,728	304,866	292,003
Capital work-in-progress	93,638	78,559	73,052	53,157	62,531	51,582	(8,000)	(8,000)	(8,000)	(8,000)
Other assets and investments	20,201	20,201	20,201	20,201	20,201	20,201	20,201	20,201	20,201	20,201
Total Non-Current Assets	**215,842**	**255,476**	**288,026**	**313,915**	**330,970**	**345,249**	**342,855**	**329,929**	**317,067**	**304,204**
Total Assets	**243,872**	**282,458**	**325,522**	**370,509**	**397,661**	**416,372**	**429,739**	**433,591**	**439,572**	**448,287**
LIABILITIES										
Current Liabilities										
Bank OD / short term loans	0	0	0	0	0	0	0	0	0	0
Trade creditors and other payables	25,863	27,938	28,647	31,227	34,023	36,249	38,580	40,452	41,818	43,233
Interest arrears	39,800	45,147	52,182	61,106	61,106	61,106	61,106	61,106	61,106	61,106
Provisions	21,359	21,359	21,359	21,359	21,359	21,359	21,359	21,359	21,359	21,359
Total Current Liabilities	**87,023**	**94,444**	**102,189**	**113,693**	**116,489**	**118,714**	**121,046**	**122,918**	**124,284**	**125,699**
Long Term Borrowings	**143,828**	**178,755**	**210,489**	**240,196**	**262,182**	**273,513**	**283,074**	**288,520**	**294,261**	**300,313**
Capital and Reserves										
Share capital	66,508	78,702	88,774	98,735	105,482	109,543	113,056	113,056	113,056	113,056
General reserves	2,022	2,022	2,022	2,022	2,022	2,022	2,022	2,022	2,022	2,022
Retained earnings	(56,202)	(72,159)	(78,645)	(84,830)	(89,207)	(88,114)	(90,152)	(93,618)	(94,744)	(93,496)
Deferred Tax	693	693	693	693	693	693	693	693	693	693
Total Capital and reserves	**13,021**	**9,259**	**12,844**	**16,620**	**18,990**	**24,144**	**25,619**	**22,154**	**21,028**	**22,276**
Total Liabilities and Equity	**243,872**	**282,458**	**325,522**	**370,509**	**397,661**	**416,372**	**429,739**	**433,591**	**439,572**	**448,287**

Source: Asian Development Bank staff estimates.

SUMMARY TABLE

Item	FY[a]	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
							Forecast				
Commercial											
Electricity sales	*(GWh)*	4,174	4,977	6,192	6,712	7,269	7,843	7,850	7,850	7,850	7,850
Average revenue per unit sold	*(NPR/kWh)*	10.0	10.7	11.4	12.2	13.1	14.0	15.0	16.0	17.1	18.3
Average cost per unit sold [b]	*(NPR/kWh)*	14.2	13.4	11.8	12.2	12.5	12.7	13.8	14.7	15.4	16.2
Financial											
Revenue	*(NPR m)*	44,568	56,282	73,895	85,117	98,151	112,791	120,449	128,601	137,311	146,634
Operating expenses	*(NPR m)*	51,135	57,190	61,563	68,716	76,231	83,241	90,214	96,217	101,605	107,406
Operating profit	*(NPR m)*	(6,567)	(908)	12,332	16,401	21,921	29,550	30,235	32,384	35,706	39,228
Overheads	*(NPR m)*	4,184	4,100	4,422	4,782	5,024	5,386	5,770	6,179	6,657	7,187
Depreciation	*(NPR m)*	4,082	5,602	7,141	8,667	9,674	10,651	12,666	12,926	12,863	12,863
Finance costs incl FX	*(NPR m)*	3,774	5,347	7,255	9,137	11,599	12,419	13,837	16,745	17,313	17,930
Net profit before tax	*(NPR m)*	(18,606)	(15,956)	(6,486)	(6,185)	(4,377)	1,093	(2,038)	(3,466)	(1,126)	1,248
Capital expenditure	*(NPR m)*	44,515	45,235	39,692	34,556	26,729	24,931	10,272	0	0	0
Operating cash flow	*(NPR m)*	(6,400)	(8,635)	(946)	7,914	2,661	8,835	11,357	11,284	14,884	17,341
Net cash flow	*(NPR m)*	(5,444)	(6,750)	948	12,814	2,797	(2,674)	11,357	11,284	14,884	17,341
Interest and royalty arrears	*(NPR m)*	39,800	45,147	52,182	61,106	61,106	61,106	61,106	61,106	61,106	61,106
Current assets	*(NPR m)*	28,030	26,982	37,496	56,594	66,692	71,122	86,883	103,662	122,505	144,083
Current liabilities	*(NPR m)*	87,023	94,444	102,189	113,693	116,489	118,714	121,046	122,918	124,284	125,699
Fixed assets	*(NPR m)*	215,842	255,476	288,026	313,915	330,970	345,249	342,855	329,929	317,067	304,204
Long-term liabilities	*(NPR m)*	143,828	178,755	210,489	240,196	262,182	273,513	283,074	288,520	294,261	300,313
Capital and reserves	*(NPR m)*	13,021	9,259	12,844	16,620	18,990	24,144	25,619	22,154	21,028	22,276
Return on average net fixed assets [c]		-11%	-4%	5%	5%	7%	9%	8%	8%	9%	11%
Debt-service coverage ratio [d]		-1.68	-0.58	0.61	0.70	0.95	1.24	1.15	1.17	1.25	1.28
Debt:equity ratio [e]		68:32	69:31	70:30	70:30	71:29	71:29	71:29	71:29	72:28	72:28
Receivable days		120	120	120	120	120	120	120	120	120	120

FX = foreign exchange GWh = gigawatt-hour, kWh = kilowatt-hour
[a] "FY" denotes the fiscal year ending on 15 July of the calendar year indicated.
[b] Includes cost of sales, operating costs, administration costs and depreciation. Finance costs are excluded.
[c] Calculated as earnings before interest, tax and depreciation divided by closing net fixed assets.
[d] Calculated as earnings before interest, tax and depreciation divided by interest and principal payments due.
[e] Long-term debt divided by equity net of accumulated profits/losses.
Source: Asian Development Bank staff estimates.