FINANCIAL MANAGEMENT ASSESSMENT AND FINANCIAL PERFORMANCE AND PROJECTIONS

I. EXECUTIVE SUMMARY

1. The proposed project aims to develop the renewable-based 40.5 MW distributed energy system and 500 kW of shallow-ground heat pump system in western Mongolia. It is the first-of-its-kind distributed renewable energy application which supports the development, demonstration and gradual roll out of the renewable energy in the targeted load centres.

2. The Ministry of Energy (MOE) is the executing agency of the project. It will undertake overall responsibility for project implementation and provide guidance and oversight to the project management unit (PMU). MOE has extensive experience in the implementation of projects financed with foreign loans and grants and in managing disbursements from the Asian Development Bank (ADB). The PMU will be established within MOE, and will be responsible for managing, coordinating, and supervising implementation of all project subcomponents and assist the project implementing agencies (IA) to ensure smooth project implementation.

3. The Western Region Energy System State-Owned Joint Stock Company (WRES), Altai-Uliastai Region Energy System State-Owned Joint Stock Company (AUES), and the National Renewable Energy Centre (NREC) are the project IAs, which will take primary responsibility for the day-to-day project activities, conduct of environmental and social safeguard monitoring, procurement and initial payment control.

4. The financial management assessment (FMA) has proven that MOE, WRES, AUES, and NREC have generally good financial management practices, and qualified management and operational staff who will secure successful implementation of the project. The major financial management weakness is related to the (i) lack of experience in ADB's policies and procedures, (ii) lack of segregation of duties and some internal controls; (iii) less independent role of Internal Auditor, and (iv) absence of procedures for foreign exchange risk hedging and financial management reporting adjustment. These risks can be mitigated in accordance with the risk management and mitigation plan.

II. INTRODUCTION

5. The FMA was carried out in December 2017–January 2018 with reference to the relevant ADB's guidance on financial management assessment.[1] The FMA reviewed the capacity of MOE, WRES, AUES, and NREC in terms of their systems and procedures including planning and budgeting, accounting, internal control, financial reporting, internal audit, and external auditing. The assessment was carried out based on the responses to the FMA questionnaire. Other supporting materials such as charts of accounts, external auditor reports for 2015–2016, organizational charts, process chats and curriculum vitae of key personnel were received from the above entities and reviewed during the preparation of this FMA. The FMA also reviewed the staffing and staff resources, funds flow arrangements and disbursement procedure proposed for the project. Recommendations were made to address identified deficiencies resulting from the review.

[1] ADB. 2015. *Financial Management Technical Guidance Note-Financial Management Assessment*. Manila; and ADB. 2009. *Financial Due Diligence, A Methodology Note*. Manila.

III. PROJECT DESCRIPTION

6. The proposed project will have the following outputs:

Output 1: Distributed renewable energy system developed. A total of 40.5 MW of solar photovoltaic and wind power subprojects will be set up in the western and Altai–Uliastai regions. The project will also demonstrate advanced battery storage technology with energy management systems, a first-of-its kind application in the country.[2] The subprojects will be implemented in two batches: (i) core subprojects with 25.5 MW of capacity in the first batch (2018–2021); and (ii) noncore subprojects with 15 MW of capacity in the second batch (2019–2022).

Output 2: Shallow-ground heat pump system developed. In selected targeted regions, 500 kilowatts-thermal of shallow-ground heat pump capacity will be installed in public buildings in three batches.[3] This will supply air pollutant-free space heating for 10,000 square meters of floor area. The subprojects will demonstrate the performance of the heat pump systems and increase experience in design, installation, operation, and maintenance for future scale-up**.**

Institutional framework strengthened and organizational capacity enhanced. This output will (i) enhance the technical capacity of local utilities and the national dispatching center for renewable energy investment planning, renewable electricity dispatching, and grid control and protection; (ii) support the preparation of a renewable energy investment plan (2023–2030) for the targeted regions; and (iii) support the project management unit for the project implementation. It will also support the evolution of the FIT system into a more economically efficient tariff mechanism that reflects actual capital costs, while ensuring sufficient commercial financial viability.

7. The total project cost is $66.22 million. The project will be financed with ADB loan ($40.0 million), the Japan Fund for the Joint Crediting Mechanism grant ($6.0 million), Strategic Climate Fund[4] grant ($14.6 million), and contribution of the Government of Mongolia ($5.62 million). The project will be implemented during 2018–2023.

IV. COUNTRY AND SECTOR FINANCIAL MANAGEMENT ISSUES

8. **Public expenditure and financial accountability assessment.** In 2015, the World Bank carried out the Public Expenditure and Financial Accountability (PEFA) assessment to establish a baseline measure of current public financial management (PFM) and to assess its strengths and weaknesses.[5] It was undertaken on six core dimensions together with 28 indicators measuring performance of the country's PFM system. Major findings are summarized below.

9. **Budget planning**. The annual budget preparation process is well-regulated in accordance with the Fiscal Stability Law in 2010 and the Integrated Budget Law (IBL) in 2011.

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[2] The JFJCM is supporting the installation of advanced battery technology resilient up to –40 degrees Celsius with a minimum of 4,400 charge–discharge cycles.

[3] The subproject will be implemented in three batches, starting with a 100-kilowatt installation in the Uvs *aimag* center (core subproject), followed by a rollout in four *aimag* centers in the western Mongolia.

[4] Under the Scaling Up Renewable Energy Program in Low-Income Countries.

[5] World Bank. 2015. *Mongolia–Public Financial Management Performance Report. Report Number 96546.* No newer updates are available.

But the state budget faced annual deviations between planned and actual expenditures which were over by 15% annually during 2011–2013. Mid-year amendments to the budget were therefore required every year. This is mainly due to the structural volatility in the economy since the state budget is heavily dependent on mineral resource revenue, which makes revenue projections and budget planning difficult. There is also a political imperative to expand budget forecasting, which leads to over optimistic estimates of key macroeconomic parameters. The Ministry of Finance (MOF) was reported to be in the process of improving revenue projections.

10. **Budget transparency and comprehensiveness.** Mongolia has, following the adoption of the IBL in 2011, made good progress in increasing the comprehensiveness of information included in the budget and in the public disclosure of information. There had been a concern over an increase in off-budget financing through the Development Bank of Mongolia since 2013, but this off-budget financing was integrated into the state budget in 2015 when projects and programs financed by the Development Bank of Mongolia started to be approved as a component within the framework of the Law on Budget. Oversight of fiscal risks of state-owned enterprises was assessed to be limited due to a lack of risk-related reporting within the compulsory set of financial information. Also, during the budget preparation, ministries do not abide by the ceilings set in the Medium Term Fiscal Framework and the budget circular, which hampers prioritizing of expenditures.

11. **Predictability and control of budget execution**. Cash management was reported to be weak and largely based on expenditure controls and cash rationing. MOF regularly changes monthly budget allotments with little advance notice. A major weakness determined was the lack of a unified overview mechanism by MOF before approving the government's incurrence of debt and issuance of guarantees. Good progress has been made in the operation of the treasury single account and the expenditure limits exercised through the Government Financial Management Information System. The internal audit function, which was set up only in 2012, has progressed well with full-time auditors in government agencies. The observed weaknesses can be attributed to the relative newness of the internal audit function as many of the newly created audit units do not yet consistently meet professional standards related to independence, proficiency, quality assurance, risk management, and management response follow-up.

12. **Accounting, recording, and reporting**. Accounting, recording, and reporting practices are generally strong. MOF regulation does not allow suspense accounts, and MOF regularly reviews budget entities' chart of accounts. Advance accounts are reviewed semi-annually to ensure compliance with policy and contract requirements for clearance. In-year budget execution reports are legal requirements and prepared on a monthly and quarterly basis, and show actual expenditures and revenues compared with the approved budget. Data from budget entities are reconciled monthly with the Government Financial Management Information System, and the magnitude of errors is considered small. The budget entities are required to prepare financial statements twice yearly on full accrual basis and in line with the International Public Sector Accounting Standards. However, by the time of the World Bank report preparation, it was admitted that implementation of accrual accounting in the public sector was not yet complete.

13. **External scrutiny and audit**. The parliament exercises considerable authority over budget supervision. All government entities are audited annually by the National Audit Office (NAO) and a full range of financial audits and some aspects of performance audit are carried out. NAO follows the International Standards on Auditing, and audit reports are regularly submitted to the Parliament, in a timely manner, and with clear evidence of follow-up on earlier NAO recommendations. However, the Parliament pays less attention to external audit reports, which weakens accountability.

14. PEFA assessed that the country's overall PFM system is reasonably well-functioning, especially regarding comprehensiveness and transparency of information, accounting and financial reporting, and external scrutiny. A Right to Information Act (2012) was also expected to institutionalize citizen participation for greater budget transparency.

15. However, the PEFA also observed weaknesses in fiscal discipline, strategic allocation of resources, and efficient service delivery, which are directly associated with low predictability of state revenues. It also noted an implementation gap between the existing laws in PFM and the capacity of the key agencies to implement these laws.

16. **International Monetary Fund Program**. The International Monetary Fund approved $434 million of the 3-year Extended Financing Facility in May 2017 to help the country restore macroeconomic and fiscal balance amid economic difficulties. It largely addresses fiscal management reform including the Medium Term Fiscal Framework revision to reduce expenditure while enhancing fiscal revenue by broadening the tax base, revision of IBL, and enhancement of fiscal discipline. The successful implementation of the Extended Financing Facility is expected to improve the government weak capacity identified in PEFA (paras. 9–15).

17. **Identified financial management risks in the Country Partnership Strategy.** The identified risks related to PFM based on the ADB's 2017–2020 Country Partnership Strategy (CPS) for Mongolia include (i) inherent volatility of the mining sector and its impact on macroeconomic stability, (ii) governance risk related to financial management, (iii) weak budget planning and execution, and (iv) undermined debt sustainability.[6] The CPS focus is to help the Government of Mongolia restore macroeconomic stability and get back on a path of fulfilling its long-term development vision. It includes (i) capacity strengthening to finance operation and maintenance and other recurrent costs to enhance financial sustainability, and (ii) an improvement of the transparency and accountability of the management systems of the public sector to help ensure that the financial resources of both ADB and the government are used appropriately and effectively.

V. WRES PROJECT FINANCIAL MANAGEMENT SYSTEM

A. Overview of Financial Management System and Institutional Context

1. Organization and Staff Capacity

18. WRES is a fully state-owned company with the following ownership structure: 41% by MOE, 39% by State Property Committee (SPC), and 20% by MOF. The main objective of the company is to provide reliable electricity in the western Mongolia (Bayan Ulgii, Khovd and Uvs provinces). Reorganization and liquidation of the company is governed by the Civil Code and other related laws of Mongolia.

19. Supreme power in WRES belongs to the shareholders—the General Agency for Specialized Inspection, the General Department of Taxation, and the Social Insurance General Office. which conduct monitoring and hold regular shareholders' meetings. In-between the shareholders' meeting, the Representative Management Council has the authority over daily operation and management of WRES.

[6] ADB. 2017. *Country Partnership Strategy*: Mongolia, 2017–2020. Manila; ADB. 2017. *Inclusive and Sustainable Growth Assessment: Mongolia 2017-2020.* Manila.

20. In WRES, key officials include the Chief Executive Officer (CEO), directors of branch office, Chief Engineer, Chief Accountant, and Director of General Administration Department. The company has competent key personnel, and they all possess solid working experience in their areas of competence.

2. Information Management

21. WRES's financial accounting information technology (IT) platform is an off-the-shelf system customized to the company's needs. The software is integrated and used by both the head company and all branches and units. Financial reports are produced automatically and do not require manual data handling.

22. The system data is protected with passwords for better data protection and potential fraud avoidance. Accountability based access rights for different IT platform modules and an internal control within the IT support team to avoid possible data manipulation at the system's back-end are in place.

23. The project financial data are processed through a separate module within the company's financial system; where data are entered manually. The IT platform produces the project financial reports automatically. While manual entry of initial data might be prone to some errors, this can be improved through relevant internal controls (e.g., segregation of duties and automated cross-checking). Use of the same financial system for both the project and the regular company's operations significantly reduces risks of data handling errors at the consolidated level.

3. Budgeting and Funds Flow Arrangements

24. The budget process in WRES is robust, with major internal controls and segregation of duties in place. The budget is prepared in accordance with the current law of Mongolia, orders of relevant state organizations, and WRES's internal guidelines. The draft budget is discussed and endorsed by the shareholders. WRES previous experience with the World Bank financed project showed no financial management issues such as, needs of budget revisions, or inadequate or delayed fund disbursements.

25. The actual expenditures are compared to the approved budget and deviations are analysed monthly and annually. Any deviations from the budget, as well as actual expenditures are reported; deviations are approved by an independent auditor. Historically, there have been no significant variations from the budget.

4. Effectiveness

26. As a fully state-owned company, WRES should comply with the country's PFM system and other requirements.

27. Budget is allocated in accordance with the IBL. Financial reports and statements are prepared in accordance with the Accounting Law, and International Financial Reporting Standards (IFRS).

28. According to the IBL and Law on Audit, WRES is required to have its audited financial statements consolidated into the annual Government financial statements, which are reviewed by MOF and the Government, and then presented to parliament for discussion and approval. The

IBL also creates the legal framework for establishing an internal audit function in public sector entities including WRES.

29. In addition, project implementation shall follow MOF Decree No. 196 (1995) on Implementation, Organization, Financing, Controlling and Assessing procedures of Projects MOF No. 196, in 2015.

5. Accountability Measures

30. WRES's owners (SPC, MOE, and MOF) exercise supervision over the company.

31. The company's financial reports are annually audited by an independent external auditor who expresses his opinion on the company's financial statements and documentation. The external audit is carried out in accordance with the International Standards on Auditing. The Monitoring and Auditing Department of MOE could perform independent audit of projects.

32. The company's business plan is reviewed and approved by the Energy Regulatory Commission (ERC), MOE, and the State Committee. WRES is financed according to the approved budget.

33. Electricity tariffs are set and approved by ERC. Approval of main economic indicators and target levels is set by MOE and SPC. MOF is involved in monitoring and tariff level assessments in case the state budget support is necessary based on the recommendation of ERC.

B. Strengths

34. WRES's relative strengths in financial management are as follows:

- Well-qualified and experienced finance and accounting professionals in key positions;
- Company's earlier experience in projects financed by multilateral (World Bank) and bilateral (Government of Peoples' Republic of China) donors;
- Low personnel turnover in the accounting and economic function of the company which ensures sustainability of operations and knowledge transfer;
- Generally well-documented financial management, cash management and accounting processes, procedures and systems;
- Compliance with IFRS; and
- No material external audit qualifications in recent years.

C. Weaknesses

35. WRES's major weaknesses are as follows:

- Lack of knowledge of ADB's procedures both by the company and by its external and Internal Auditors,
- No policy and guidelines for foreign exchange risk management, and
- Internal Audit lacks full independence.

D. Personnel, Accounting Policies and Procedures, Internal Control, Internal and External Audit

1. Personnel

36. WRES has qualified and experienced key personnel. The Chief Accountant holds a master's degree in Accounting and possesses 22 years of work experience, including 9 years within WRES. The Economist and Assistant Accountant both possess a bachelor's degree and have, respectively, 12 and 8 years of working experience within WRES. In addition, the Accounting and Economic Department has an accountant, a bookkeeper, and a procurement specialist. The team takes care of the economic planning, accounting of fixed assets and materials, payroll accounting and taxation issues, budgeting, management accounting and financial reporting. Staff turnover rate is low.

37. The Accounting and Economic Department personnel participate in regular training at least twice per year. The training courses are organized by MOF, and the Mongolian Certified Public Accountant Institute.

38. Despite the good qualification level of the Accounting and Economic Department personnel, comprehensive training in ADB's guidelines and procedures should be organised for WRES's accounting staff.

39. Staff of the Internal Audit and Control and Monitoring Department should also get appropriate training in ADB procedures since they lack sufficient knowledge of ADB's guidelines and requirements.

2. Accounting Policies and Procedures

40. WRES's accounting system and chart of accounts allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds. This is done according to the company's Accounting Policy. The cost allocations are automated; the general ledger and subsidiary ledgers are reconciled monthly. Accounting records are kept for 20–25 years in standard archives.

41. **Segregation of duties**. Functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated. WRES has functional procedures for handling invoices and payments which covers proper documentation, reconciliation of invoiced and delivered quantities, checking of relevant calculations and authenticity of underlying documents as well as registering invoices in the relevant systems and their accounting. There are special controls for payroll and any changes to it require authorization and approval of CEO.

42. WRES uses accrual-based accounting for both operations and projects and follow the IFRS and the rules set in Mongolian Accounting Law. Finance staff works according to the responsibility stated in the companies' accounting policies and other internal regulations. Control and Monitoring Department is responsible for assuring the compliance with policies and procedures.

43. **Assets safeguards**. The company has sufficient internal controls for safeguarding its assets (such as regular inventories), as well as a special system of contractual security services. Disposal of assets is made according to decision of SPC.

3. Internal Control and Internal and External Audit

44. The internal audit function in WRES was established in 2015. The current Internal Auditor started in this position in 2017 and has extensive educational background and working experience in economics, finance, accounting and procurement. The Internal Auditor reports only to the CEO. According to the Internal Audit Standards recommended by the Institute of Internal Auditors, the Internal Auditor should report functionally to the Board and administratively to the CEO in order to maintain its independence.

45. The external auditor is assigned through a bidding procedure carried out by the procurement committee appointed by the Board of Directors. Audit reports are issued semi-annually. In their work, external auditors follow the International Standards on Auditing. No major accountability issues have been noted in the audit reports for the past two years. However, in 2016, the auditors found some minor irregularities related to handling of receivables and cash remittance and recommended to improve relevant internal controls. The Monitoring and Auditing Department of MOE could do an independent audit of the project, whenever necessary.

E. Financial Reporting Systems

46. The WRES's IT platform is an off-the-shelf system customized to the company's needs. Financial reports of the company are prepared by the automated accounting system quarterly and annually and also include reports used for management accounting (cost reports and budget performance reports).

47. The financial system would not need adjustments for the project reporting, and it could be linked to the project physical progress.

VI. AUES PROJECT FINANCIAL MANAGEMENT SYSTEM

A. Overview of Financial Management System and Institutional Context

1. Organization and Staff Capacity

48. AUES is a fully state-owned company with the following ownership structure: 41% by MOE, 39% by SPC, and 20% by MOF. The main objective of the company is to provide reliable electricity in the mid-western Mongolia (Altai-Uliastai region). Reorganization and liquidation of the company is governed by the Civil Code and other related laws of Mongolia.

49. Supreme power in AUES belongs to the shareholders, the General Agency for Specialized Inspection, the General Department of Taxation, and Social Insurance General Office who conduct regular shareholders' meetings and monitoring. Authority over daily operation and management of AuE rests with the Representative Management Council.

50. In AUES, key officials include the CEO, Deputy Director in Charge of Production (Chief Engineer), Head of Internal Control Department, Chief Accountant, and Deputy Director in Charge of Operations. The company has competent key personnel and they all possess solid working experience in their areas of expertise.

2. Information Management

51. AUES's financial accounting IT platform is an off-the-shelf system customized to the company's needs. The software is integrated and used by both the head company and all branches and units. Financial reports are produced automatically and do not require manual data handling.

52. The system data is protected with passwords for better data protection and potential fraud avoidance. Accountability based access rights for different IT platform modules and an internal control within the IT support team to avoid possible data manipulation at the system's back-end are in place.

53. The project financial data are processed through a separate module within the company's financial system; the data are entered manually. The IT platform will produce project financial reports automatically. While manual entry of initial data might be prone to some errors, this can be improved through relevant internal controls (e.g., segregation of duties and automated cross-checking). Use of the same financial system for both the project and the regular company's operations significantly reduces risks of data handling errors on the consolidated level.

3. Budgeting and Funds Flow Arrangements

54. The budget process in AUES is robust, with major internal controls and segregation of duties in place. The budget is prepared in accordance with the current law of Mongolia, orders of relevant state organizations, and AUES internal guidelines. The draft budget is discussed and endorsed by the shareholders. AUES previous experience with the World Bank-financed project showed no financial management issues such as needs of budget revisions or inadequate or delayed fund disbursements.

55. The actual expenditures are compared to the approved budget and deviations are analysed monthly and annually. Any deviations from the budget, as well as actual expenditures should be reported; deviations are approved by an independent auditor. Historically, there have been no significant variations from the budget.

4. Effectiveness

56. As a fully state-owned company, AUES should comply with the country's PFM system and other requirements.

57. Budget is allocated in accordance with the IBL. Financial reports and statements are prepared in accordance with the Accounting Law, and IFRS.

58. According to the IBL and Law on Audit, AUES is required to have its audited financial statements consolidated into the annual Government financial statements, which are reviewed by MOF and the Government, and then presented to parliament for discussion and approval. The IBL also creates the legal framework for establishing an internal audit function in public sector entities including AUES.

59. In addition, project implementation shall follow the MOF Decree No. 196 (1995) on Implementation, Organization, Financing, Controlling and Assessing procedures of Projects MOF No. 196, in 2015.

5. Accountability Measures

60. AUES's owners (SPC, MOE, and MOF) exercise supervision over the company.

61. The company's financial reports are annually audited by an independent external auditor who expresses its opinion on the company's financial statements and documentation. The external audit is carried out in accordance with International Standards on Auditing. The Monitoring and Auditing Department of MOE could perform independent audit of projects.

62. The company's business plan is reviewed and approved by ERC, MOE, and the State Committee. AUES is financed according to the approved budget.

63. Electricity tariffs are set and approved by ERC. Approval of main economic indicators and target levels is set by MOE and SPC. MOF is involved in monitoring and tariff level assessments in case the state budget support is necessary based upon recommendation of ERC.

B. Strengths

64. AUES's relative strengths in financial management are as follows:

- Well-qualified and experienced finance and accounting professionals in key positions;
- Company's earlier experience in projects financed by multilateral (the World Bank) and Bilateral (Abu-Dhabi Fund for Development and Kuwait Fund for Economic Development) donors;
- Low personnel turnover in the accounting and economic function of the company which ensures sustainability of operations and knowledge transfer;
- Generally well-documented financial management, cash management and accounting processes, procedures and systems;
- Compliance with IFRS; and
- No material external audit qualifications in recent years.

C. Weaknesses

65. AUES's major weaknesses are as follows:

- Lack of knowledge of ADB's procedures both in the company and by its external and Internal Auditors,
- No policy and routines for foreign exchange risk management, and
- Internal Audit lacks full independence.

D. Personnel, Accounting Policies and Procedures, Internal Control, Internal and External Audit

1. Personnel

66. AUES has qualified and experienced key personnel. The chief accountant holds a master's degree in Accounting and is a Certified Public Accountant. He possesses 14 years of work experience in accounting and financial management in public sector. The economist and one of the accounting clerks both have bachelor's degree and have 7 years of working experience. In addition, the Financial and Planning Department has another accounting clerk, a sales

accountant and a bookkeeper. The team takes care of the economic planning, development of marketing policy, accounting of fixed assets and materials, payroll accounting and taxation issues, budgeting, management accounting and financial reporting. Staff turnover rate is low.

67. The accounting and economic department personnel participate in regular training at least once per year. The training courses are organized by the Mongolian Certified Public Accountant Institute.

68. Despite the good qualification level of the accounting and economic department personnel, comprehensive training in ADB's guidelines and procedures should be organised for AUES's accounting staff. Staff performing the Internal Audit function should also get appropriate training in ADB procedures since they lack sufficient knowledge of ADB's guidelines and requirements.

2. Accounting Policies and Procedures

69. AUES's accounting system and the chart of accounts allow for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds. This is done according to the company's Accounting Policy. The cost allocations are automated; the general ledger and subsidiary ledgers are reconciled monthly. Accounting records are kept for 20–25 years in standard archives.

70. **Segregation of duties**. Functions of ordering, receiving, accounting for, and paying for goods and services are appropriately segregated. AUES has functional procedures for handling invoices and payments**,** which covers proper documentation, reconciliation of invoiced and delivered quantities, checking of relevant calculations and authenticity of underlying documents as well as registering invoices in the relevant systems and their accounting. There are special controls for payroll and any changes to it require authorization and approval of CEO.

71. AUES uses accrual-based accounting for both operations and projects and follow the IFRS and the rules set in Mongolian Accounting Law. Finance staff works according to the responsibility stated in the company's accounting policies and other internal regulations. Control and Monitoring Department is responsible for assuring compliance with policies and procedures.

72. **Assets safeguards**. The company has sufficient internal controls for safeguarding its assets (such as regular inventories), as well as a special system of contractual security services. Disposal of assets is made according to the decision of SPC.

3. Internal Control and Internal and External Audit

73. The internal audit function in AUES was established in 2012. The Internal Auditor reports only to the CEO. According to the Internal Audit Standards recommended by the Institute of Internal Auditors, Internal Audit should report functionally to the Board and administratively to the CEO in order to maintain its independence.

74. The external auditor is selected through a bidding procedure carried out by the Procurement Committee appointed by the Board of Directors. Audit reports are issued semi-annually. In their work, external auditors follow the International Standards on Auditing. No major accountability issues have been noted in the audit reports for the past 2 years. However, in 2016 the auditors found some minor irregularities related to handling of receivables and cash remittance and recommended to improve relevant internal controls. The monitoring and Auditing

Department of MOE could do an independent audit of the project, whenever necessary.

E. Financial Reporting Systems

75. The AUES's IT platform is an off-the-shelf system and customized to the company's needs. Financial reports of the company are prepared by the automated accounting system quarterly and annually and also include reports used for management accounting e.g., cost reports and budget performance reports.

76. The financial system would not need adjustments for the project reporting, and it could be linked to the project physical progress.

VII. NREC PROJECT FINANCIAL MANAGEMENT SYSTEM

A. Overview of Financial Management System and Institutional Context

1. Organization and Staff Capacity

77. NREC is a 100% state-owned research institute for renewable energy development related research and development, which is supervised by SPC and MOE. NREC's core business activities and competences are renewable energy related research and development including: (i) design and technical standards development, (ii) research and pilot project development, (iii) operations and maintenance of the assets under the research and development projects, (iv) technical inspection and commissioning services, (v) development of technical and economic feasibility studies, and (vi) greenhouse gas emissions validation.

78. NREC consists of Technical Control and Production Department, Research and Project Department (both report to the Chief Engineer), and Administration Department, which reports directly to the CEO. Altogether, the company employs 24 people.

79. NREC's key personnel include the CEO, Chief Engineer, Head of Technical Control and Production Department, and Head of Research and Project Department. The company's key personnel are competent and possess solid working experience in their areas of expertise.

2. Information Management

80. NREC's financial accounting IT platform is an off-the-shelf system customized to the company's needs. The software is integrated and used by both the head company and all branches and units. Financial reports are produced automatically and do not require manual data handling.

81. The system data is protected with passwords for better data protection and potential fraud avoidance. Accountability based access rights for different IT platform modules and an internal control within the IT support team to avoid possible data manipulation at the system's back-end are in place.

82. The project financial data are processed through a separate module within the company's financial system; the data are entered manually. The IT platform will produce project financial reports automatically. While manual entry of initial data might be prone to some errors, this can be improved through relevant internal controls (e.g., segregation of duties and automated cross-checking). Use of the same financial system for both the project and the regular company's

operations significantly reduces risks of data handling errors on the consolidated level

3. Budgeting and Funds Flow Arrangements

83. The budget process in NREC is robust, with major internal controls and segregation of duties in place. The budget is prepared in accordance with the current law of Mongolia, orders of relevant state organizations, and NREC internal rule. The draft budget is discussed and endorsed by the shareholders. NREC's previous experience with the World Bank financed project showed no financial management issues such as needs of budget revisions or inadequate or delayed fund disbursements.

84. Actual expenditures are compared to the approved budget and deviations are analysed monthly and annually. Any deviations from the budget are reported and approved by an independent auditor. Historically, there have been no significant variations from the budget.

4. Effectiveness

85. As a fully state-owned research institute for renewable energy related research and development, NREC should comply with the country's PFM system and other requirements.

86. Budget is allocated in accordance with the IBL. Financial reports and statements are prepared in accordance with the Accounting Law, and IFRS.

87. According to the IBL and Law on Audit, NREC is required to have its audited financial statements consolidated into the annual Government financial statements, which are reviewed by the MOF and the Government, and then presented to Parliament for discussion and approval. The IBL also creates the legal framework for establishing an internal audit function in public sector entities including NREC.

88. In addition, project implementation shall follow MOF Decree No. 196 in 2015 on Implementation, Organization, Financing, Controlling, and Assessing procedures of Projects.

5. Accountability Measures

89. SPC and MOE exercise supervision over NREC. The company's financial reports are annually audited by an independent external auditor who expresses his opinion on the company's financial statements and documentation. The external auditor is assigned by the National Audit Office. The external audit is carried out in accordance with International Standards on Auditing.

B. Strengths

90. NREC's relative strengths in financial management are as follows:

- Well-qualified and experienced finance and accounting professionals;
- Low personnel turnover in the accounting function of the company that ensures sustainability of operations and knowledge transfer;
- Generally well-documented financial management, cash management and accounting processes, procedures and systems; and
- Compliance with IFRS.

C. Weaknesses

91. NREC's major weaknesses are as follows:
- Lack of knowledge of ADB's procedures both by the company and by its external auditors,
- No policy and routines guidelines for foreign exchange risk management,
- No previous experience in ADB-financed projects, and
- Accounting team is very small and does not have any regular training or even a training policy.

D. Personnel, Accounting Policies and Procedures, Internal Control, Internal and External Audit

1. Personnel

92. NREC does not have a separate accounting and finance department. The accountant and the bookkeeper work in the company's Administration Department. The accountant and the bookkeeper are reported to have sufficient qualifications and knowledge for performing their current tasks.

93. The accounting team does not have any training policy, and they have not attended any training for the last 3 years. Neither have the team members with experience in ADB projects and relevant policies. NREC should develop training programs for the accounting personnel to keep them up to date with all needed financial and accounting requirements.

2. Accounting Policies and Procedures

94. NREC's accounting system and the chart of accounts allow for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds. The cost allocations are automated; the general ledger and subsidiary ledgers are reconciled monthly. Accounting records are kept in an archive as paper copies.

95. **Segregation of duties**. NREC's functions of ordering, receiving, accounting for, and paying for goods and services are segregated. Authorization to execute a transaction, recording of the transaction, custody of assets involved in the transaction and reconciliation of bank accounts and subsidiary ledgers are performed by the accounting team under control and approvals by the CEO.

96. NREC has functional procedures for handling invoices and payments, which covers proper documentation, reconciliation of invoiced and delivered quantities, checking of relevant calculations and authenticity of underlying documents as well as registering invoices in the relevant systems and their accounting. There are special controls for payroll performed by the accountant. Additions or modifications can be made with the Executive Director's approval.

97. NREC uses accrual-based accounting and follows the IFRS and the rules set in the Mongolian Accounting Law. Finance staff works according to the responsibility stated in the company's accounting policies and other internal regulations. NREC maintains accounting records of its contracts. Compliance with policies and procedures are verified and monitored by external auditors.

98. Bank accounts are reconciled monthly. Cash on hand is physically verified, and reconciled with the cash books every month. NREC has sufficient internal controls for safeguarding its assets, such as inventories. There is an internal procedure for disposal of assets; the decision is done by the CEO and approved by the SPC and the MOE.

3. Internal Control and Internal and External Audit

99. NREC does not have an Internal Auditor because of the small size of its organization, which has only 24 staff. However, since internal audit could provide additional insight into the existing accounting, financial management and internal control procedures, it will be complemented with internal audit assistance by the consultant under the project and the Internal Auditing, Monitoring and Evaluation Division, of MOF.

100. Financial statements of NREC are audited annually by an independent external auditor assigned by the National Audit Office after a special election process. An audit report is issued at the beginning of each year. The assigned external auditor follows International Standards on Auditing.

E. Financial Reporting Systems

101. NREC's IT platform is an off-the-shelf system customized to the company's needs. Financial reports of the company are prepared by the automated accounting system quarterly and annually and include also reports used for management accounting, such as cost reports and budget performance reports.

102. The financial system would not need adjustments for the project reporting, and it could be linked to the project physical progress.

VIII. MOE PROJECT FINANCIAL MANAGEMENT SYSTEM

A. Overview of Financial Management System and Institutional Context

1. Organization and Staff Capacity

103. MOE has five departments, namely Policy Planning Department, State Administration Management Department, Policy Implementation Regulatory Department, Fuel Policy Implementation Regulatory Department, and Internal Audit and Monitoring Department. The Ministry is managed by the Minister through the Vice Minister and the State Secretary. MOE's Finance Division is part of the State Administration Management Department.

104. A PMU will be established under MOE. MOF will approve the organizational structure of the PMU. The structure and management of the organization will be established according to the government procedure approved under No. 196 Order of MOF in 2015 to use foreign loan assets and to implement, organize, finance, monitor, and evaluate the project and events that will be financed by these assets. The PMU structure also needs to meet the requirement of the project.

105. The regulatory and supervisory agencies for PMU will be the Project Steering Committee (PSC), MOE, and MOF. The PSC will be operating independently but would work in cooperation with the government agencies and organizations.

106. PMU finance staff will be assigned by MOF according to the government procedure to use foreign loan assets and to implement, organize, finance, monitor and evaluate the project and activities that will be financed by these assets.

2. Information Management

107. The financial accounting IT platform is an off-the-shelf system, customized to address the particular needs of the entity. The system is stand-alone used for project financial reporting, but it should be sufficient for the PMU needs. Financial reports are produced automatically per schedule, and do not require manual data handling.

108. MOE has a back-up procedure for the PMU's IT system. In addition, copies of project data will be kept in a project management monitoring system, and hard copies will be kept in MOE's archive. There is no information about safeguards for the project management monitoring system and MOE's archive.

3. Budgeting and Funds Flow Arrangements

109. An annual budget plan will be prepared on the basis of the budget estimate from PMU, and will be submitted to MOF, upon MOE's endorsement, for discussion and approval by the Parliament. The budget plan will be reviewed quarterly for necessary adjustment throughout the fiscal year.

110. The project funds flow arrangements will be regulated under MOF's Order No. 196 in 2015 on the use of foreign loans and the procedures to implement, organize, finance, monitor, and evaluate the project. Disbursement methods will be based on the loan/grant agreement and the procedure approved by MOF.

111. The advance account will be established in either a state bank or any of the commercial banks, which meet the requirements for executing foreign and local currency transactions, issuing and administering letters of credit, handling a large volume of transaction and issuing detailed monthly bank statements promptly.

4. Effectiveness

112. MOE's financial reports are prepared in accordance with the Accounting Law of Mongolia, and IFRS. MOE and PMU will follow requirements set forth in MOF's Order No. 196 in 2015 on the use foreign loan and the procedures for implementation, organization, financing, controlling, and assessing of projects financed by government and foreign loan.

5. Accountability Measures

113. PMU will report to MOE, MOF, and PSC. Financial statements are audited by auditors assigned by the National Audit Office and MOF.

B. Strengths

114. MOE's relative strengths in financial management are as follows:

- Extensive experience in implementation of projects financed through foreign loans and grants and in managing disbursements from ADB (since 1995);

- Well-qualified and experienced finance and accounting professionals;
- Generally well-documented financial management, cash management and accounting processes, procedures and systems;
- Solid internal controls and procedures;
- Internal and external auditors familiar with ADB policies and procedures;
- Compliance with IFRS; and
- No material external audit qualifications in recent years.

C. Weaknesses

115. MOE's major weaknesses are as follows:
- Vulnerability to political risks and frequent changes in the governmental bodies, which have been happening in recent years.
- No policy and guidelines for foreign exchange risk management, and
- PMU's staff are recruited on the "as-needed" basis thus creating possibilities for interruption of knowledge transfer.

D. Personnel, Accounting Policies and Procedures, Internal Control, Internal and External Audit

1. Personnel

116. PMU staff in accounting shall:
- Be responsible for all project finance management activities, including financial and accounting reporting, project and expenditure of foreign and domestic investment projects, registration of project costs, etc. following the procedures related to donor organization and implementing organization's financial, accounting, and regulations;
- Have accountability and oversight of all account activities under the project;
- Provide control over the day-to-day operating expenses of the project units, provide reports and other required reports and reports to the relevant authorities within the specified timeframe;
- Keep records of the assets and assets used in the project;
- Handle project cash operations and issue a cash report;
- Fulfil and supervise the tasks to be undertaken under the implementation plan;
- Be responsible for providing relevant work papers to related departments; and,
- Provide timely information to project managers and relevant officers.

117. Recruitment process is an open competitive selection among the qualified candidates having accounting educational background and preferably with certified public accountant qualification. Internal Auditor shall have a bachelor or higher degree, and be a certified public accountant with 3 years of experience in civil service.

2. Accounting Policies and Procedures

118. The PMU will submit the project financial reports to MOE and MOF in conformity with the Accounting Law of Mongolia and procedures for loan/grant from the donors.

119. The general ledger and the subsidiary ledgers will be reconciled monthly. Reconciliation difference will be corrected by the PMU accountant. Accounting records are sent to MOE's archive

annually according to the Archive Law.

120. PMU has a functional procedure for handling invoices and payments, which covers proper documentation, reconciliation of invoiced and delivered quantities, checking of relevant calculations and authenticity of underlying documents as well as registering invoices in the relevant systems and their accounting.

121. PMU uses accrual-based accounting and follow the IFRS requirements. Accounting staff will work according to the No 196 order of MOF, and guidelines and regulations of the donors.

122. PMU Bank accounts are reconciled monthly. Because the cash on hand will be taken from the Activity Account, it will be regularly verified by the PSC, MOF, and MOE.

123. Project financial report will be prepared by the PMU in monthly, quarterly and annual basis. The PSC reviews project financial report monthly. Annual project financial report shall be audited once a year by the National Audit Office.

3. Internal Control and Internal and External Audit

124. PMU is under the internal audit system in MOE. The project will be included in the internal audit annual work program, and internal audit findings will be reported to the Minister and the State Secretary of MOE.

125. Financial statements are annually audited by external auditors assigned by the National Audit Office. The external auditor follows the International Standards on Auditing. No major accountability issues have been noted in the audit reports for the past 3 years.

E. Financial Reporting Systems

126. PMU's IT platform is an off-the-shelf system and meets the entity's needs, but may need some additional adjustments for the project. Financial statements are prepared monthly, quarterly and annually. Project progress and status reports will be prepared monthly. All reports will be prepared automatically by the IT system. Thus, the risk of manual data entry or handling or fraud will be minimised.

IX. DISBURSEMENT ARRANGEMENTS AND FUNDS FLOW MECHANISMS

127. MOE will act as the executing agency of the project. It will undertake overall responsibility for the project implementation and provide guidance and oversight for the PMU, which will be responsible for the day-to-day activities of the project and will provide assistance to IAs to ensure smooth project implementation.

128. WRES, AUES, and NREC will be responsible for supervision of the day-to-day project activities, conduct of environmental, social and land acquisition monitoring, procurement and initial payment control. In order to ensure successful project implementation, each company will establish a project implementation unit (PIU).

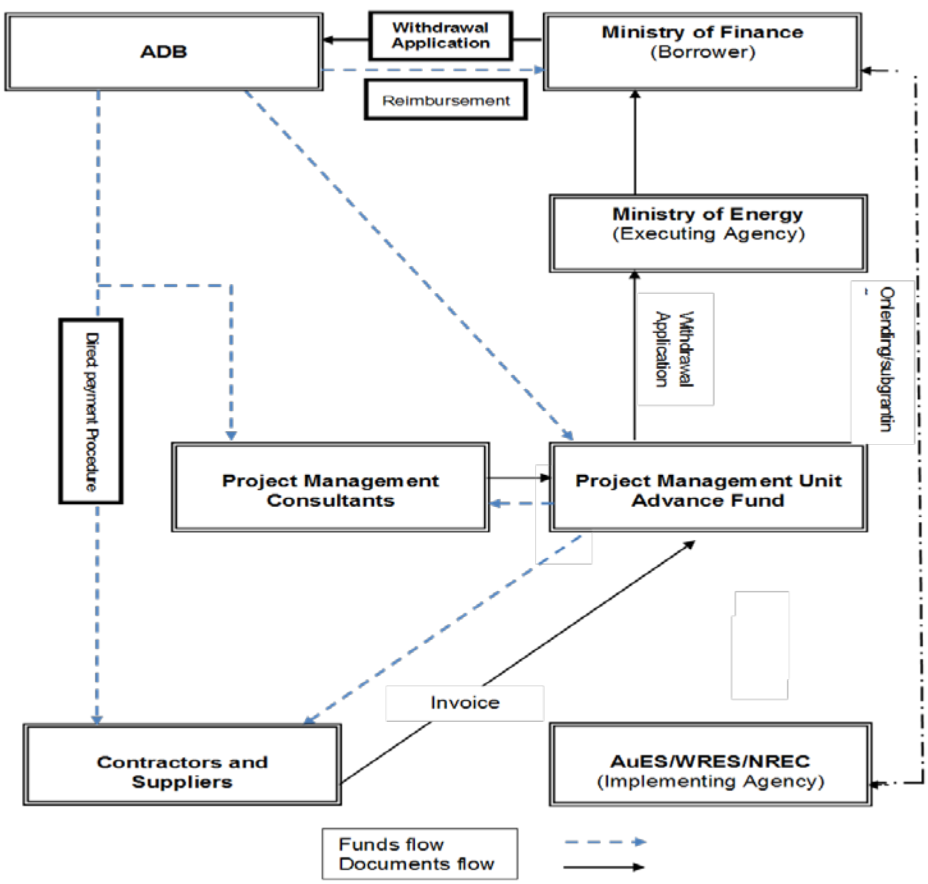
129. A financial consultant will be recruited to support PMU, WRES, AUES, and NREC during the project implementation. The consultant will assist in the detailed engineering design, procurement, social and environmental safeguard monitoring, and financial management.

130. The disbursement arrangements will include: (i) direct payment procedure for large equipment and material supply contracts, (ii) reimbursement procedure, as appropriate, when MOE initially funds ADB eligible expenditures from its own resources, and (iii) advance account procedure for all other expenditures. The PMU will be responsible for (i) preparing withdrawal applications, (ii) collecting supporting documents from WRES, AUES, and NREC, and (iii) submitting withdrawal applications to MOF. MOF will be responsible for sending withdrawal applications to ADB.

131. MOF will authorize the PMU to establish three advance accounts, one each for the loan and the grants for PMU management, promptly after loan effectiveness at a commercial bank acceptable to ADB. The currency of the advance accounts is US dollar. The advance accounts are to be used exclusively for ADB, Japan Fund for the Joint Crediting Mechanism, and Strategic Climate Fund share of eligible expenditures. The PMU, who established the advance accounts in its name, is (i) accountable and responsible for proper use of advances to the advance accounts, and (ii) will maintain and manage the advance accounts. MOF and MOE will be co-signatories on the advance accounts.

132. The project fund flow diagram is presented in the Figure 1.

Figure 1: Fund Flow Diagram



X. RISK DESCRIPTION AND RATING

133. The table below summarizes the financial management risk assessment, and proposed risk mitigation and management measures. Financial management, internal control and risk assessment for MOE, WRES, AUES, and NREC are in the Chapter XVI.

Table 1: Risk Assessment and Risk Management Plan

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
Inherent Risk		
Country-specific Overall, the country PFM system is reasonably well functioning, but the PEFA observed weaknesses in fiscal discipline, strategic allocation of resources, and efficient service delivery, which are directly associated with low predictability of the state revenues. It also noted an implementation gap between the existing laws in PFM and the capacity of the key agencies to implement these laws.	Moderate	Continuing to develop and improve the PFM system and procedures and support key structural reforms. The current Country Partnership Strategy of the Asian Development Bank (ADB) identified the need to continue to help the Government of Mongolia restore macroeconomic stability and get back on a path of fulfilling its long-term development vision. ADB will support ensuring the stability of the country's financial sector through capacity building for government's ability to finance operations, improve transparency and accountability of the management systems of the public sector and to develop prudential capacity of the Bank of Mongolia and Financial Regulatory Commission to effectively supervise the financial system.
Entity –specific The financial viability of the project entities has been largely dependent on government support through subsidy injections. This situation is likely to persist if the planned tariff increases are not implemented.	High	Sustained tariff increases until 2030 are essential to meet the government's targets for financial sustainability: 0% net profit margin by 2023 and 5% by 2030. Adequate loan covenants requiring the government to oversee and support the implementing agencies in maintaining sound financial health are set forth in the draft loan agreement and project agreement. The government will regularly review electricity tariff adjustments to achieve full cost recovery by 2023 in accordance with the State Policy on Energy, 2015–2030.
Overall Inherent Risk	Moderate	
Project Risk		
Implementing entity-outdated/lack of knowledge on ADB procedures.	Substantial	The implementing agencies have no experience in ADB projects. The PPTA provides training for accounting and audits staff before project implementation.

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
Funds flow and accounting policies and procedure - No regulatory policy and procedures for managing foreign exchange and interest risks.	Moderate	The executing and implementing agencies will employ methods to hedge the foreign exchange risk such as foreign exchange and interest contracts and options.
Staffing – Staff are generally well qualified but will need comprehensive training on ADB guidelines and procedures.	Moderate	The PPTA provides training for accounting and audit staff before project implementation.
Accounting and Auditing Procedures – Minimal perceived risk. The automated accounting system and chart of accounts allow proper recording of transactions. Monthly reconciliation of general and subsidiary ledgers are done and asset safeguards are in place.	Low	Continuing system review and staff training will enhance control and accuracy.
Internal and External Audit - Internal Audit function lacks independence from the management. Administratively, Internal Auditor is under the management and this may affect independent roles and responsibilities of the internal audit. External audit is performed and no major accountability issues have been reported in the last 2 years.	Low	Functionally, the Internal Auditor directly reports to the Board of Directors. A financial consultant to be recruited will provide trainings, extend support to the Internal Auditors in preparation and implementation of quarterly and annual internal audit program related to the project.
Reporting and Monitoring - Project financial management reporting responsibilities (e.g., what reports to be prepared, how the reports are to be used) have not been established.	Low	The executing agency will prepare project financial management reports as required in ADB projects. The project data and financial statements can be prepared without any significant changes to the current financial management system.
Information Systems – Some financial reporting systems need adjustments for project reporting.	Low	The project management unit with the assistance of the financial consultant will set up an integrated financial management reporting system in compliance with the Resolution of the Ministry of Finance (No. 196) dated 10 July 2015.
Overall Project Risk	Moderate	
Overall (Combined) Risk	Moderate	

ADB = Asian Development Bank, PEFA = Public Expenditure and Financial Accountability, PFM = public financial management.

XI. PROPOSED ACTION PLAN

134. Based on the assessment, the table below summarizes the action plan to improve the identified financial management weaknesses.

Table 2: Financial Management Action Plan

Action	Responsibility	Timing
Training in ADB's procedures for accounting and audit staff before project implementation	MOE, WRES, AUES, NREC	July 2018
Establishing methods to hedge the foreign exchange and interest risk such as foreign exchange and interest contract and options.	MOE, WRES, AUES, NREC	September 2018

AUES = Altai-Uliastai Region Energy System State-Owned Joint Stock Company, MOE = Ministry of Energy, NREC = National Renewable Energy Centre, WRES = Western Region Energy System State-Owned Joint Stock Company.

XII. SUGGESTED FINANCIAL MANAGEMENT COVENANTS

135. Given the relative strength of financial management in the executing and implementing agencies, no financial management loan covenants are proposed except improving the financial soundness of the implementing agencies.

XIII. FINANCIAL MANAGEMENT ASSESSMENT CONCLUSION

136. The public sector and entity level financial management systems are relatively robust and present moderate risks from ADB's perspective. Identified risks in terms of lack in knowledge on ADB procedures, foreign exchange risk management, internal audit, and financial reporting can be mitigated as proposed in the risk management plan.

XIV. HISTORICAL FINANCIAL PERFORMANCE OF WRES, AUES AND NREC

137. An assessment of the IAs' financial statements from 2012 to 2016 was conducted in accordance with ADB's *Guidelines on the Financial Management and Analysis of Projects*.

A. WRES

138. By the end of 2016, total assets of WRES amounted to MNT82 billion, with 93% in fixed assets. Long-term debt was 44% of total capitalization, decreasing from 55% in 2012. State equity increased to 66% in 2016 from 42%.

139. During the period, the gross profit margin was negative, indicating that the tariffs could not cover the cost of sales. There was constant improvement registered from -120% in 2012 to -34% in 2016. Net profit margin fluctuated from -62% in 2013 to -10% in 2016.

140. Cost of sales was 134% of sales revenues and net operating cash flow was negative in 2016, mainly due to inadequate tariffs. The company's liquidity was good with average current ratio of 379%, with the asset mostly in cash.

141. Due to consistent government support in terms of providing equity, WRES maintained its high capitalization level with its debt to equity ratio of about 50% over the period. However, despite

this good measure of solvency, the debt service coverage of the company was poor due to significant losses.

142. Analysis of tariffs paid by the company to its own generator (Durgun HPP) and electricity imported from Russia, compared to the average retail electricity tariffs in 2015-2016 shows that the electricity transmission component of the retail tariff was negative. This situation is addressed under the State Policy on Energy 2015–2030 (approved by the Parliament in June 2015) mandating profitability targets for state-owned electricity utilities located in the central energy system, including WRES. According to the Policy, these utilities should reach zero profit margin by 2023 and 5% profit margin by 2030.

143. WRES's key historical financial ratios are presented in Table 5.

B. AUES

144. By the end of 2016, total assets of AUES amounted to MNT105 billion with 97% in fixed assets. The share of long-term debt in total capital was stable at around 41%. The share of the state equity was also rather stable at 57% in average.

145. During 2012–2016, sales revenues could not cover the cost of sales, and the company was receiving state subsidies. Cost of sales was 144% of sales revenues in 2016; operating costs were 35%. Net profit margin was also negative, reaching its best level of -37% in 2016.

146. Net operating cash flow of the company was negative in 2012–2014 but improved up to MNT657 million in 2016. Net financial cash flow was positive in 2012 due to massive financing from the state but became negative in 2013–2015 due to investments and loan repayments.

147. The company's liquidity was good with average current ratio over the period of 790%. Analysis of the company's solvency shows that although the long-term debt in the total capital structure was in average 41%, the debt service coverage ratios were negative due to poor financial results.

148. Analysis of tariffs paid by the company to own generators (several hydro and diesel power plants) and for electricity imported from CES and WRES, compared to the average retail electricity tariff in 2015-2016, shows that the electricity transmission component of the retail tariff was slightly positive. Similar to WRES, it is assumed that the situation would improve if AUES can implement the same profitability targets as those set in the State Policy on Energy 2015–2030 (para. 146).

C. NREC

149. By the end of 2016, total assets of NREC amounted to MNT598 million, with 62% in fixed assets. The rest included current assets, with inventories constituting 61% of all current assets. The company reported no long-term debt during 2012-2016 and no short-term debt for 2012–2013. During 2012-2014, the company was financing itself mostly through equity. However, the situation with self-financing started to deteriorate in 2015 when NREC showed significant losses.

150. During 2012–2016, NREC's operating income was negative. Net profit margin was positive in 2012–2014 but decreased from 16% in 2012 to 3% in 2014; it was -114% in 2015 and -62% 2016. In 2016, while cost of sales was only 51% of sales revenues, general and administrative expenses accounted for 105%, Unlike the operating profit, NREC's non-operating income, mostly from rentals, was positive during 2012–2015.

151. The company's liquidity was satisfactory during 2012–2015, with current ratio not lower than 130%. However, the situation changed in 2016 when the current ratio dropped to only 63%. In 2015 and 2016, the company was in a precarious cash situation with its cash level reaching almost zero.

152. Although NREC has not attracted any long-term debt financing, its high share of short-term debt financing and the decline in total shareholders' equity caused by negative retained profits during 2012–2016 raise concerns about the company's solvency and sustainability. In early 2017, on top of renewable energy related research and development function of NERC, MOE officially designated NERC as the agent to carry out technical inspection and commissioning tests for all renewable energy power plants which would be major source of the operation income of NREC, considering around 400 MW of new renewable energy projects pipeline being expected to come on line before 2023. The corporate financial projection of NERC (Table 7) reflects such likely improvement in operation income.

XV. CORPORATE FINANCIAL PROJECTIONS

153. Corporate financial projections for the IAs are based on their historical performance and consider the companies' future development prospects. Financial projections for 2017–2030 were prepared for WRES, AUES, NERC following ADB's *Financial Management and Analysis of Projects.*[7] The financial projections were done in nominal prices expressed in MNT and applied international and local price escalation factors provided by ADB. The projections use an exchange rate of MNT2,406 to $1.00 using the purchasing power parity until 2030.

154. The corporate financial projections for WRES, AUES, and NREC were modelled with the target indicators below in order to achieve net profit margins set in the State Policy on Energy 2015–2030 and to achieve debt sustainability of these companies:

- Net profit margin for the companies to be at least zero in 2023 and 5% in 2030;
- Current ratio of at least 1 in 2019-2021 and of 1.5 from 2022 onwards;
- Cash operation ratio of 100% from 2019;
- Account receivable collection period of 60 days and collection efficiency of 95%;
- Debt service coverage ratio of at least 1 in 2019-2021 and 1.2 from 2022;
- Share of long term debt in total capital not more than 75% between 2018-2030.

155. Since NREC, being a research and development institute is not regulated as WRES and AUES are, revenues from shallow-ground heat pump heat sales will play a minor role in its business. NREC's income and expenses from its core business have been modelled based on its 2018 business plan.

156. Depreciation of the companies' assets is based on the straight-line depreciation method and is done separately for the existing assets and the new assets coming both as business-as-usual capital investment and the project investments. Weighted average depreciation periods over the considered assets are used, based on depreciation periods defined in the Rules for Depreciation Calculations of Fixed Assets of the Energy Licensees according to Resolution No. 86 of the ERC issued in 2015.

[7] ADB. 2005. *Financial Management and Analysis of Projects.* Manila.

157. Annual operating costs of the new renewable energy plants are calculated separately for each subproject. Operating costs for the business-as-usual operations are based on historical financial data of the companies and takes into consideration local inflation. Annual operating costs cover annual fixed costs, including personnel, insurance, external services, general maintenance, spare parts, consumables, supplies, and property taxes on existing assets. New assets' property tax and relevant customs duties on the new equipment acquired during the implementation of the considered investment program are calculated separately. In December 2015, the Government provided for customs and VAT exemptions for imports of renewable energy equipment. This amendment became effective from the beginning of 2016. In the corporate projections, zero VAT and custom duties rates are applied to renewable equipment, and normal rates (10% VAT and 5% custom duties) are used for other equipment types.

158. Net income of the implementing agencies up to MNT3.0 billion is subject to corporate taxes of 10%, the excess is taxed at 25%.

159. No capital injections are considered after 2018. However, to support the companies with additional amount of cash during the transition period to the 5% net profitability target the current level of annual subsidy from the Government was assumed in order to avoid sharp increases in retail tariffs.

160. Annual electricity load demand growth is estimated at 5%. The additional load demand by 2030, which cannot be met by the existing domestic capacity and the capacity addition due to the project, is assumed to be covered by the electricity imports from Russia.

161. Current cost of (i) electricity generated from the existing domestic hydropower plants, (ii) transmission and distribution, and (iii) imported electricity from Russia are escalated using 8% of annual domestic inflation rate. Electricity produced by the project is uploaded to the grid at the estimated cost of energy which is also escalated using 8% of annual domestic inflation rate.

162. The necessary annual end-users tariff increase by 9% in nominal term and 1% in real term was determined based on the results of the financial projections and shown in Table 3. Higher tariff increase for WRES was projected in 2030 because of higher dependence on costly imported electricity, especially after 2023.

Table 3: Projected Tariffs for WRES and AUES
(MNT/kWh)

MNT/kWh	2017	2021	2023	2030
AuES Average Electricity End User Tariff (Nominal)	167.56	289.57	340.98	435.31
AuES Average Electricity End User Tariff (Real)	167.56	212.84	214.88	160.06
WRES Average Electricity End User Tariff (Nominal)	156.77	230.30	283.85	520.11
WRES Average Electricity End User Tariff (Real)	156.77	169.28	178.88	191.24

AUES = Altai-Uliastai Region Energy System State-Owned Joint Stock Company, kWh = kilowatt hour, MNT = Mongolian togrog, WRES = Western Region Energy System State-Owned Joint Stock Company.
Source: Asian Development Bank estimates.

163. Affordability of the increases in electricity end-user tariff was also estimated, assuming that (i) annual residential demand is increased per entire annual electricity load demand growth, and (ii) household expenditure is increased per regional GDP growth. Share of electricity expenditure in the estimated average household expenditure in AUES and WRES is in Table 4. The impact on WRES is relatively higher due to higher tariff increase schedule (para 162), but the

impacts in both AUES and WRES are well below the affordability threshold of 5%–10% of household expenditure.

Table 4: Impacts of Tariff Increase On Average Annual Household Expenditure
(%)

	2017	2021	2023	2030
AuES average household expenditure	1.18	1.90	2.11	2.22
WRES average household expenditure	1.23	1.53	1.78	2.67

AUES = Altai-Uliastai Region Energy System State-Owned Joint Stock Company, WRES = Western Region Energy System State-Owned Joint Stock Company.
Source: Asian Development Bank estimates.

164. Corporate financial projections up to 2030 using the tariff increase projections for each IA are in the Tables 5–7. To achieve and maintain financial health of WRES and AUES in accordance with these financial projections, the executing agency, MOE, alongside ERC, and MOF will regularly review electricity tariff adjustments to achieve full cost recovery targets.

Table 5: Summary of Financial Performance and Projections
Western Region Energy System State-Owned Joint Stock Company
(Billion MNT)

	Actual						Forecast		
Item	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2020**	**2023**	**2030**
Income Statement									
Revenue and gains	11.79	13.08	14.72	19.25	20.11	17.31	32.26	43.91	84.01
Expenses and losses	12.68	16.65	18.57	19.70	21.32	22.10	34.64	43.87	80.36
Net Income	-0.89	-3.56	-3.86	-0.44	-1.21	-4.79	-2.37	0.04	3.65
Cash Flow Statement									
From operating activities	-6.33	-0.48	-1.54	0.31	2.95	-35.36	1.47	7.05	11.16
From investing activities	0.00	-0.03	-0.05	-0.04	-0.26	-0.08	-24.05	-0.12	-0.21
From financing activities	6.48	0.12	-0.02	0.00	-0.18	41.13	22.75	-1.89	-6.21
Ending cash balances	2.24	1.86	0.25	0.52	3.04	8.73	5.68	17.82	41.61
Balance Sheet									
Total current asset	5.81	4.17	2.70	3.99	6.26	11.10	9.44	24.22	54.41
Assets	81.05	80.17	73.71	82.22	82.00	83.89	173.90	170.31	157.81
Total current liability	1.25	1.54	1.94	0.91	1.08	4.10	6.23	9.23	16.17
Liabilities	45.45	45.64	37.90	36.86	36.85	36.45	78.78	85.77	78.28
Equities	35.61	34.52	35.81	45.36	45.15	47.44	40.00	36.15	47.28
Financial Ratios									
Net profit margin	-0.18	-0.62	-0.51	-0.04	-0.10	-0.55	-0.14	0.00	0.05
Current Ratio	4.64	2.71	1.39	4.39	5.82	2.71	1.51	2.62	3.37
Cash operating ratio	0.40	0.78	0.41	0.58	0.95	0.88	1.13	1.32	1.23
Debt to Total Capital	0.55	0.55	0.49	0.44	0.44	0.41	0.43	0.48	0.44
Debt service coverage ratio	-120.62	-220.82	-678.60	-225.98	-26.63	-6.79	1.02	2.16	1.86

Note: Actual financial data for 2012–2016 are based on audited financial statements.
MNT = Mongolian togrog.
Source: Asian Development Bank estimates.

Table 6: Summary of Financial Performance and Projections
Altai-Uliastai Region Energy System State-Owned Joint Stock Company
(Billion MNT)

	Actual						Forecast		
Item	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2020**	**2023**	**2030**
Income Statement									
Revenue and gains	9.11	4.22	12.30	9.96	9.92	7.07	14.30	29.80	45.31
Expenses and losses	10.90	10.00	16.47	13.71	12.46	9.19	17.41	29.79	43.04
Net Income	-1.79	-5.78	-4.18	-3.75	-2.53	-2.12	-3.11	0.01	2.27
Cash Flow Statement									
From operating activities	-1.19	-1.61	-0.16	0.13	0.66	-45.14	3.25	12.80	15.38
From investing activities	0.00	-0.45	-0.11	0.00	0.00	-0.21	-28.49	-0.31	-0.54
From financing activities	1.93	0.50	-0.35	-0.18	0.00	43.47	25.04	-5.37	-11.40
Ending cash balances	2.26	0.70	0.09	0.05	0.71	-1.17	1.53	25.99	51.75
Balance Sheet									
Total current asset	3.93	3.19	4.30	3.20	3.32	2.84	5.13	32.13	60.67
Assets	105.11	99.61	108.76	107.09	104.64	103.85	196.19	209.84	186.24
Total current liability	0.20	0.79	0.95	0.62	0.55	4.98	4.80	10.78	15.72
Liabilities	43.67	44.26	44.43	44.09	44.02	45.35	111.66	129.85	106.94
Equities	61.44	55.35	64.33	63.00	60.62	58.50	57.30	55.06	62.12
Financial Ratios									
Net profit margin	-0.18	-0.62	-0.51	-0.04	-0.10	-0.30	-0.27	0.00	0.05
Current Ratio	19.68	4.06	4.51	5.20	6.06	0.57	1.07	2.98	3.86
Cash operating ratio	0.23	0.67	0.29	0.43	0.81	1.38	1.82	2.93	2.02
Debt to Total Capital	0.41	0.44	0.40	0.41	0.42	0.41	0.56	0.60	0.53
Debt service coverage ratio	-543.87	-125.85	-32.46	-42.31	-19.19	3.46	1.05	1.44	1.34

Note: Actual financial data for 2012–2016 are based on audited financial statements.
MNT = Mongolian togrog.
Source: Asian Development Bank estimates.

Table 7: Summary of Financial Performance and Projections
National Renewable Energy Centre
(Billion MNT)

	Actual						Forecast		
Item	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2020**	**2023**	**2030**
Income Statement									
Revenue and gains	1.002	1.115	1.631	0.337	0.314	0.878	1.375	1.880	2.866
Expenses and losses	0.875	1.108	1.581	0.657	0.503	0.560	1.158	1.640	2.679
Net Income	0.127	0.007	0.050	-0.320	-0.189	0.318	0.217	0.240	0.187
Cash Flow Statement									
From operating activities	-0.005	-0.173	-0.270	-0.207	-0.001	0.169	0.279	0.420	0.556
From investing activities	-0.027	0.005	0.002	0.000	0.000	0.000	-1.217	-0.653	-0.439
From financing activities	0.186	0.000	0.388	0.077	0.000	0.000	1.015	0.248	-0.065
Ending cash balances	0.180	0.012	0.132	0.002	0.001	0.170	0.441	0.580	0.679
Balance Sheet									
Total current asset	0.627	0.306	0.545	0.325	0.229	0.452	0.783	0.995	1.256
Assets	1.081	0.741	0.947	0.710	0.598	0.595	3.364	4.964	4.914
Total current liability	0.238	0.001	0.157	0.239	0.362	0.041	0.132	0.197	0.315
Liabilities	0.238	0.001	0.157	0.239	0.362	0.041	0.474	0.963	1.033
Equities	0.843	0.740	0.790	0.471	0.236	0.554	1.186	1.898	3.099
Financial Ratios									
Net profit margin	0.164	0.007	0.033	-1.142	-0.616	0.366	0.176	0.143	0.070
Current Ratio	2.636	218.920	3.461	1.360	0.633	10.967	5.920	5.059	3.987
Cash operating ratio	0.975	0.950	0.993	0.452	0.641	1.692	1.316	1.379	1.290
Debt to Total Capital	0.000	0.000	0.000	0.000	0.000	0.000	0.106	0.161	0.156
Debt service coverage ratio	-20.499	n/a	-2.416	-322.025	n/a	0.000	44.205	9.048	8.204

Note: Actual financial data for 2012 – 2016 are based on audited financial statements.
MNT = Mongolian togrog.
Source: Asian Development Bank estimates.

XVI. Risk Assessment and Proposed Mitigation Measures

165. Risks in association with the project have been identified. The overall findings about risk level of the project is moderate. A summary of risk analysis is shown in Tables below.

Table 8: Risk Analysis for Ministry of Energy

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Inherent Risks				
Country Specific Risks– Overall, the country PFM system is reasonably well functioning, but the PEFA observed weaknesses in fiscal discipline, strategic allocation of resources, and efficient service delivery, which are directly associated with low predictability of the state revenues. It also noted an implementation gap between the existing laws in PFM and the capacity of the key agencies to implement these laws.	**High**	**less likely**	**Moderate**	Continuing to develop and improve the PFM system and procedures and support key structural reforms. The current Country Partnership Strategy of the Asian Development Bank (ADB) identified the need to continue to help the Government of Mongolia restore macroeconomic stability and get back on a path of fulfilling its long-term development vision. ADB will support ensuring the stability of the country's financial sector through capacity building for government's ability to finance operations, improve transparency and accountability of the management systems of the public sector and to develop prudential capacity of the Bank of Mongolia and Financial Regulatory Commission to effectively supervise the financial system.
Project Risks				
Implementing entity-outdated/lack of knowledge on ADB	**low**	**likely**	**substantial**	The executing agency has limited experience in ADB projects (JFPR grants). The PPTA and the financial consultant will provide training for accounting and audits staff before project implementation.
Funds flow and accounting policies and procedure - No regulatory policy and procedures for managing foreign exchange risks.	**low**	**less likely**	**Moderate**	Methods to hedge the foreign exchange risk such as foreign exchange contracts and options will be employed.

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Staffing– Staff are generally well qualified but will need comprehensive training on ADB guidelines and procedures.	**low**	**likely**	**moderate**	The PPTA and the financial consultant will provide training for accounting and audit staff before project implementation.
Accounting policies and financial management system– The automated accounting system and chart of accounts allow proper recording of transactions. Monthly reconciliation of general and subsidiary ledgers are done and asset safeguards are in place.	**low**	**less likely**	**low**	Continuing system review and staff training will enhance control and accuracy.
Internal audit– Monitoring and Auditing Department of Ministry of Energy has internal audit function.	**low**	**likely**	**low**	PMU is under the internal audit system in MOE. The project will be included in the internal audit annual work program, internal audit findings will be reported to the Minister and the State Secretary of MOE.
External Audit– Financial statements are annually audited by external auditors assigned by the National Audit Office. The external auditor follows the International Standards on Auditing. No major accountability issues have been noted in the audit reports for the past 3 years.	**low**	**less likely**	**low**	Monitor the current system implementation.
Reporting and Monitoring– Project financial management reporting responsibilities (e.g., what reports to be prepared, how the reports are to be used) have not been established.	**low**	**less likely**	**low**	The executing agency will prepare project financial management reports as required in ADB projects. The project data and financial statements can be prepared without any significant changes to the current financial management system.
Information Systems–– some financial reporting systems need adjustments for project reporting.	**low**	**less likely**	**low**	The project management unit with the assistance of the financial consultant will set up an integrated financial management reporting system in compliance with the Resolution of the Ministry of Finance (No. 196) dated 10 July 2015.
Overall Project Risk	**mode rate**	**likely**	**M**	Implementing the mitigation actions mentioned above will reduce the risk to Moderate.
Overall Risk	**mode rate**	**likely**		

Table 9: Risk Analysis for Western Region Energy System

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Inherent Risks				
Country Specific Risks– Overall, the country PFM system is reasonably well functioning, but the PEFA observed weaknesses in fiscal discipline, strategic allocation of resources, and efficient service delivery, which are directly associated with low predictability of the state revenues. It also noted an implementation gap between the existing laws in PFM and the capacity of the key agencies to implement these laws.	**High**	**less likely**	**Moderate**	Continuing to develop and improve the PFM system and procedures and support key structural reforms. The current Country Partnership Strategy of the Asian Development Bank (ADB) identified the need to continue to help the Government of Mongolia restore macroeconomic stability and get back on a path of fulfilling its long-term development vision. ADB will support ensuring the stability of the country's financial sector through capacity building for government's ability to finance operations, improve transparency and accountability of the management systems of the public sector and to develop prudential capacity of the Bank of Mongolia and Financial Regulatory Commission to effectively supervise the financial system.
Entity Specific Risks– The financial viability of the project entities has been largely dependent on government support thru subsidy injections. This situation is likely to persist if the planned tariff increases are not implemented.	**high**	**likely**	**High**	The Parliament passed the State Policy on Energy 2015-2030, which targets the net profit margin of the companies to be at least zero in 2023 and 5% in 2030, Tariff levels have been designed to meet these targets. Shortfalls in required funds flow to meet costs and debt obligations will be covered through subsidy injections from the government.
Project Risks				
Implementing entity-outdated/lack of knowledge on ADB	**iow**	**likely**	**substantial**	The implementing agencies have no experience in ADB projects. The PPTA and the financial consultant will provide training for accounting and audits staff

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
				before project implementation.
Funds flow and accounting policies and procedure - No regulatory policy and procedures for managing foreign exchange risks.	**low**	**less likely**	**Moderate**	Methods to hedge the foreign exchange risk such as foreign exchange contracts and options will be employed.
Staffing– Staff are generally well qualified but will need comprehensive training on ADB guidelines and procedures.	**low**	**likely**	**moderate**	The PPTA and the financial consultant will provide training for accounting and audit staff before project implementation.
Accounting policies and financial management system– The automated accounting system and chart of accounts allow proper recording of transactions. Monthly reconciliation of general and subsidiary ledgers are done and asset safeguards are in place.	**low**	**less likely**	**low**	Continuing system review and staff training will enhance control and accuracy.
Internal audit– Internal Audit function lacks independence from the management. Administratively, Internal Auditor is under the management and this may affect independent roles and responsibilities of the internal audit.	**low**	**likely**	**moderate**	Functionally, the Internal Auditor directly reports to the Board of Directors. A financial consultant to be recruited will provide trainings, extend support to the Internal Auditors in preparation and implementation of quarterly and annual internal audit program related to the project.
External Audit– External audit is performed and no major accountability issues have been reported in the last 2 years.	**low**	**less likely**	**low**	The external auditor is selected through a bidding procedure carried out by the Procurement Committee appointed by the Board of Directors. Audit reports are issued semi-annually. In their work, external auditors follow the International Standards on Auditing.
Reporting and Monitoring– Project financial management reporting responsibilities (e.g., what reports to be prepared, how the reports are to be used) have not been established.	**low**	**less likely**	**low**	The executing agency will prepare project financial management reports as required in ADB projects. The project data and financial statements can be prepared without any significant changes to the current financial management system.

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Information Systems–– some financial reporting systems need adjustments for project reporting.	**low**	**less likely**	**low**	The project management unit with the assistance of the financial consultant will set up an integrated financial management reporting system in compliance with the Resolution of the Ministry of Finance (No. 196) dated 10 July 2015.
Overall Project Risk	**mode rate**	**likely**	**M**	Implementing the mitigation actions mentioned above will reduce the risk to Moderate.
Overall Risk	**mode rate**	**likely**		

Table 10: Risk Analysis for Altai-Uliastai Region Energy System

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Inherent Risks				
Country Specific Risks– Overall, the country PFM system is reasonably well functioning, but the PEFA observed weaknesses in fiscal discipline, strategic allocation of resources, and efficient service delivery, which are directly associated with low predictability of the state revenues. It also noted an implementation gap between the existing laws in PFM and the capacity of the key agencies to implement these laws.	**High**	**less likely**	**Moderate**	Continuing to develop and improve the PFM system and procedures and support key structural reforms. The current Country Partnership Strategy of the Asian Development Bank (ADB) identified the need to continue to help the Government of Mongolia restore macroeconomic stability and get back on a path of fulfilling its long-term development vision. ADB will support ensuring the stability of the country's financial sector through capacity building for government's ability to finance operations, improve transparency and accountability of the management systems of the public sector and to develop prudential capacity of the Bank of Mongolia and Financial Regulatory Commission to effectively supervise the financial system.

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Entity Specific Risks– The financial viability of the project entities has been largely dependent on government support thru subsidy injections. This situation is likely to persist if the planned tariff increases are not implemented.	**high**	**likely**	**High**	The Parliament passed the State Policy on Energy 2015-2030, which targets the net profit margin of the companies to be at least zero in 2023 and 5% in 2030, Tariff levels have been designed to meet these targets. Shortfalls in required funds flow to meet costs and debt obligations will be covered through subsidy injections from the government.
Project Risks				
Implementing entity-outdated/lack of knowledge on ADB	**low**	**likely**	**substantial**	The implementing agencies have no experience in ADB projects. The PPTA and the financial consultant will provide training for accounting and audits staff before project implementation.
Funds flow and accounting policies and procedure - No regulatory policy and procedures for managing foreign exchange risks.	**low**	**less likely**	**Moderate**	Methods to hedge the foreign exchange risk such as foreign exchange contracts and options will be employed.
Staffing– Staff are generally well qualified but will need comprehensive training on ADB guidelines and procedures.	**low**	**likely**	**moderate**	The PPTA and the financial consultant will provide training for accounting and audit staff before project implementation.
Accounting policies and financial management system– The automated accounting system and chart of accounts allow proper recording of transactions. Monthly reconciliation of general and subsidiary ledgers are done and asset safeguards are in place.	**low**	**less likely**	**low**	Continuing system review and staff training will enhance control and accuracy
Internal audit– Internal Audit function lacks independence from the management. Administratively, Internal Auditor is under the management and this may affect independent roles and responsibilities of the internal audit.	**low**	**likely**	**moderate**	Functionally, the Internal Auditor directly reports to the Board of Directors. A financial consultant to be recruited will provide trainings, extend support to the Internal Auditors in preparation and implementation of quarterly and annual internal audit program related to the project.

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
External Audit– External audit is performed and no major accountability issues have been reported in the last two years.	**low**	**less likely**	**low**	The external auditor is selected through a bidding procedure carried out by the Procurement Committee appointed by the Board of Directors. Audit reports are issued semi-annually. In their work, external auditors follow the International Standards on Auditing.
Reporting and Monitoring– Project financial management reporting responsibilities (e.g., what reports to be prepared, how the reports are to be used) have not been established.	**low**	**less likely**	**low**	The executing agency will prepare project financial management reports as required in ADB projects. The project data and financial statements can be prepared without any significant changes to the current financial management system.
Information Systems–– some financial reporting systems need adjustments for project reporting.	**low**	**less likely**	**low**	The project management unit with the assistance of the financial consultant will set up an integrated financial management reporting system in compliance with the Resolution of the Ministry of Finance (No. 196) dated 10 July 2015.
Overall Project Risk	**mode rate**	**likely**	**M**	Implementing the mitigation actions mentioned above will reduce the risk to Moderate.
Overall Risk	**mode rate**	**likely**		

Table 11: Risk Analysis for National Renewable Energy Centre

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Inherent Risks				
Country Specific Risks– Overall, the country PFM system is reasonably well functioning, but the PEFA observed weaknesses in fiscal discipline, strategic allocation of resources, and efficient service delivery, which are directly associated with low predictability of the state revenues. It also noted an implementation gap between the existing laws in PFM and the capacity of the key agencies to implement these laws.	**High**	**less likely**	**Moderate**	Continuing to develop and improve the PFM system and procedures and support key structural reforms. The current Country Partnership Strategy of the Asian Development Bank (ADB) identified the need to continue to help the Government of Mongolia restore macroeconomic stability and get back on a path of fulfilling its long-term development vision. ADB will support ensuring the stability of the country's financial sector through capacity building for government's ability to finance operations, improve transparency and accountability of the management systems of the public sector and to develop prudential capacity of the Bank of Mongolia and Financial Regulatory Commission to effectively supervise the financial system.
Entity Specific Risks– The financial viability of the project entities has been largely dependent on government support thru subsidy injections. This situation is likely to persist if the planned tariff increases are not implemented.	**high**	**likely**	**Moderate**	In early 2017, on top of renewable energy related research and development function of NERC, MOE officially designated NERC as the agent to carry out technical inspection and commissioning tests for all renewable energy power plants which would be major source of the operation income of NREC, considering around 400 MW of new renewable energy projects pipeline being expected to start commercial operation before 2023.
Project Risks				

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Implementing entity-outdated/lack of knowledge on ADB	**iow**	**likely**	**substantial**	The implementing agencies have no experience in ADB projects. The PPTA and the financial consultant will provide training for accounting and audits staff before project implementation.
Funds flow and accounting policies and procedure - No regulatory policy and procedures for managing foreign exchange risks.	**low**	**less likely**	**Moderate**	Methods to hedge the foreign exchange risk such as foreign exchange contracts and options will be employed.
Staffing– Staff are generally well qualified but will need comprehensive training on ADB guidelines and procedures.	**low**	**likely**	**moderate**	The PPTA and the financial consultant will provide training for accounting and audit staff before project implementation.
Accounting policies and financial management system– The automated accounting system and chart of accounts allow proper recording of transactions. Monthly reconciliation of general and subsidiary ledgers are done and asset safeguards are in place.	**low**	**less likely**	**low**	Continuing system review and staff training will enhance control and accuracy
Internal audit– NREC does not have an Internal Auditor because of the small size of its organization, which has only 24 staff.	**low**	**likely**	**moderate**	Internal audit assistance by the consultant under the project and the Internal Auditing, Monitoring and Evaluation Division, of MOF
External Audit– External audit is performed and no major accountability issues have been reported in the last two years.	**low**	**less likely**	**low**	Financial statements of NREC are audited annually by an independent external auditor assigned by the National Audit Office after a special election process. An audit report is issued at the beginning of each year. The assigned external auditor follows International Standards on Auditing.
Reporting and Monitoring– Project financial management reporting responsibilities (e.g., what reports to be prepared, how the reports are to be used) have not been established.	**low**	**less likely**	**low**	The executing agency will prepare project financial management reports as required in ADB projects. The project data and financial statements can be prepared without any significant changes to the current financial management system.

Risks	Impact	Likelihood	Risk Assessment *	Proposed Mitigation
Information Systems–– some financial reporting systems need adjustments for project reporting.	**low**	**less likely**	**low**	The project management unit with the assistance of the financial consultant will set up an integrated financial management reporting system in compliance with the Resolution of the Ministry of Finance (No. 196) dated 10 July 2015.
Overall Project Risk	**mode rate**	**likely**	**M**	Implementing the mitigation actions mentioned above will reduce the risk to Moderate.
Overall Risk	**mode rate**	**likely**		