AFRICAN DEVELOPMENT BANK

ZIMBABWE

ZIM-FUND - EMERGENCY POWER INFRASTRUCTURE REHABILITATION PROJECT – CONSOLIDATION WORKS

RDGS/PESD COZW/PGCL DEPARTMENTS

June 2019

TABLE OF CONTENTS

Grant Information

Client's information

RECIPIENT: Republic of Zimbabwe

Financing plan

Source	Amount (USD million)	Instrument
ZimFund	1.76	Grant
TOTAL COST	**1.76**	**Grant**

ADB's key financing information

Grant	USD 1.76 million
EIRR (Base case)	38%

Timeframe - Main Milestones (expected)

Board Approval of EPIRP II Stage 1 Financing	18 December 2013
Effectiveness EPIRPII Stage 1 Financing	22 January 2014
Last Date of Disbursement for EPIRPII Stage 1	28 February 2019
Approval of Additional Financing by ZimFund POC	7 February 2018
Approval of Additional Financing by the Bank Management	30 April 2019
Effectiveness of Additional Financing	30 April 2019
Last Disbursement	30 April 2020

Currency Equivalents
February 2019

1UA = 1.40 US Dollar

FISCAL YEAR:

1 Jan – 31 Dec

Acronyms and Abbreviations

AfDB	African Development Bank	MTP	Medium Term Plan
ADF	African Development Fund	MVA	Megavolt ampere (1,000 kVA)
CAP	Consolidated Appeal Framework	NCB	National Competitive Bidding
EIRR	Economic Internal Rate of Return	NGO	Non-Governmental Organization
ESMP	Environmental and Social Management Plan	O&M	Operation and Maintenance
EPIRP	Emergency Power Infrastructure Rehabilitation Project	PA	Procurement Agency
ESIA	Environmental and Social Impact Assessment	PMT	Project Management Team
GOZ	Government of Zimbabwe	POC	Programme Oversight Committee
GPA	Global Political Agreement	STERP	Short Term Emergency Rehabilitation Program
HPS	Hwange Power Station	T&D	Transmission and Distribution
IE	Implementing Entity	Tx	Transformer
IG	Inclusive Government	WACC	Weighted Average Cost of Capital
kV	Kilovolt (1,000 volts)	USD	United States Dollar
MDTF	Multi Donor Trust Fund	VAR	Volt-Ampere Reactive
MMU	ZimFund Management Unit	ZEMA	Zimbabwe Environmental Management Authority
MOENRM	Ministry of Environment and Natural Resources Management	ZESA	Zimbabwe Electricity Supply Authority
MOEPD	Ministry of Energy and Power Development	ZETDC	Zimbabwe Electricity Transmission and Distribution Company
MOF	Ministry of Finance	ZimFund	Zimbabwe Multi-Donor Trust Fund
MOHCW	Ministry of Health and Child Welfare	ZPC	Zimbabwe Power Company

RESULTS MATRIX

(As agreed with Project Oversight Committee, represented by Government and all contributing Donors)

Country and project name: Zimbabwe, Emergency Power Infrastructure Rehabilitation Project: Consolidation Works
Purpose of the project : Improve availability and reliability of electricity supply to critical social infrastructure facilities and the people of Zimbabwe

RESULTS CHAIN		PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
		Indicator (including CSI)	Baseline (2017)	Target (2020)		
IMPACT	Improved supply of electricity and health of the people in targeted areas.	Diarrheal morbidity in children under 5	7.2/1000 (2010)	<7/1000 (2020)	National statistics, DHS (Demographic and Health Surveys), Project evaluations.	**Risk**: Benefits not reaching the intended beneficiaries. **Mitigation**: Engaged with targeted beneficiaries at project inception Stage to ensure the design and implementation in line with the project objectives and outcomes. Carry out post implementation project verification.
OUTCOMES	Improved quality and reliable power supply for existing customers.	Number of existing customers with improved quality of supply and firm reliable power.	0	20,000	ZESA Holdings Quarterly and Annual Progress Reports, Supervision mission reports	**Risk:** Project cost overruns **Mitigation Measure:** Proper costing conducted during project preparation and exercising prudent financial control during execution. Provision of contingencies. **Risk:** Liquidity challenges affecting smooth payments for services by local service providers **Mitigation**: Direct disbursement **Risk**: Local Sub-contractors being incapacitated by challenges in the financial and economic sectors and supply of materials necessary in construction such as cement and fuel. **Mitigation**: Engage with the IEs to ensure that the contractor and subcontractors
OUTPUTS	Replacement of transformer at Turk substation	Replacement Transformer size (MVA)	0	30 MVA	EPIRP monthly progress reports/ ZETDC reports	
	Rehabilitation of 33kV infrastructure	Lot of new 33kV outdoor switchgear equipment installed	0	1		
		MVA Transformer capacity unconstrained	45MVA	90MVA		
	Rehabilitation of 11kV infrastructure	Number of replaced indoor switchgear panels for Mpopoma substation	0	17		

Country and project name: Zimbabwe, Emergency Power Infrastructure Rehabilitation Project: Consolidation Works
Purpose of the project : Improve availability and reliability of electricity supply to critical social infrastructure facilities and the people of Zimbabwe

RESULTS CHAIN		PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
		Indicator (including CSI)	Baseline (2017)	Target (2020)		
		Number of replaced indoor switchgear panels installed for Hillside substation	0	7		anticipate changes within the local financial and economic sectors as well as from the material suppliers and stay ready to institute remedial measures
INPUTS						
KEY ACTIVITIES	**Component I** Supply of 1 x 30MVA, 88/33kV Transformer for Turk substation Supply of ancillary 33kV equipment Stamford Substation(Harare) to increase the capacity to 90 MVA Supply of 11kV Switchgear for Mpopoma and Hillside (Bulawayo) Substations. **Component II** Provide Project Management, engineering design and supervision services Provide Procurement Services Project audit					

Components of Consolidation Works (USD '000')	
I. Power infrastructure rehabilitation	$1,550.00
II. Project Management	$100.00
Contingency	$110.00
TOTAL	**$1,760.00**

EXECUTIVE SUMMARY

The Zimbabwe Multi-Donor Trust Fund was established in 2010 as an emergency response to a severe humanitarian crisis that manifested itself in the deadly cholera epidemic that engulfed the country in 2008/2009. The outbreak claimed more than 4,000 lives and affected more than 100,000 people. The ZimFund Donor countries responded to the outbreak of cholera by mobilizing funds for the rehabilitation of water supply and sanitation infrastructure complimented with the rehabilitation of power infrastructure. The African Development Bank (the Bank) was requested by donors and accepted to administer the Fund in accordance with the Bank's rules and procedures and an Operational Manual was prepared and agreed to between the Donors, the Bank and the Government of Zimbabwe (GoZ). The size of ZimFund was determined by development partners' willingness to contribute to it over time. By 31 October 2016, ZimFund Donor's contributions had reached an amount of US$145.8 million, representing full settlement of donor's commitments to the Fund.

The implementation of the Emergency Power Infrastructure Rehabilitation Project (EPIRP) has been done in two phases with Phase I having been completed in April 2016. Due to limited donor contributions at the time of appraisal for Phase II in December 2013, it was split into two stages. Stage I with a budget of USD15.42 million was approved in December 2013 and was completed in February 2019. Stage II with a budget of USD7.32 million was approved in June 2017 and is currently at the tendering stage with an expected completion date of April 2020. EPIRP PH II Stage I realized a saving of USD 1.00 million because the actual signed contracts were lower than the budgeted amounts. Furthermore, the ZimFund Statement of Financial Position as at 31 December 2017 indicated a net income of USD 1.70 million arising from interests and income earned on the ZimFund account. This amount is to be added to the resources of the Fund and is to be used for the same purposes as the donors' contributions. On 15 February 2018, the Project Oversight Committee (POC) sanctioned the allocation of USD 0.76 million from USD1.70 million of the net interests and income to fund the Power Consolidation Works to enhance and further support the project objectives, results and outcomes. The Consolidation Works therefore has a total budget of USD1.76 million (savings plus the new allocation.

The Consolidation Works implementation will be completed within the new ZimFund mandate which expires on of 20 October 2020. Zimbabwe Electricity Transmission and Distribution Company (ZETDC) was assessed and was found to have the capacity to install the equipment. ZETDC will therefore, install the equipment including its commissioning. The technical designs, bidding documents were prepared and approved by the Bank and the tendering was launched on 6 January 2019. The processing and implementation of the project will be guided by the ZimFund Operations Manual and in accordance with Bank Rules. The implementation arrangement will remain the same as Phase I and II projects. The POC will continue to provide the policy and strategic guidance.

It is recommended that the Board approves this additional grant, from the resources of the ZimFund savings and net interests & income earned on the ZimFund account, for the amount of US$ 1.76 million to fund the equipment for consolidation works for the power project.

REPORT AND RECOMMENDATION TO THE BOARD ON THE PROPOSED UTILIZATION OF THE GRANT SAVINGS AND INTEREST INCOME ON ZIMFUND INVESTMENTS FOR THE EPIRP CONSOLIDATION WORKS

This proposal and recommendations to utilize grant savings realized on the Zimbabwe Multi Donor Trust Fund (ZimFund) Phase II Stage I project and interest income on the ZimFund accounts totaling to USD 1.76 million, to fund the Emergency Power Infrastructure Rehabilitation Project (EPIRP) Consolidation Works is hereby submitted to the Board for approval.

1 INTRODUCTION

1.1 The implementation of the EPIRP has been done in two phases. EPIRP Phase I was completed in April 2016 and its results indicate that the intended objectives have been met. Implementation of Phase II is currently ongoing and is expected to be completed by October 2019. Due to limited donor contributions at the time of approval of EPIRP Phase II in December 2013, the project was split into two stages. Stage I with a budget of USD15.42 million was approved in December 2013 and was completed in February 2019. Stage II with a budget of USD7.32 million was approved in June 2017. It is now under implementation and is expected to be completed in April 2020.

1.2 EPIRP Phase II Stage I realized a saving of USD 1.00 million because the actual signed contracts were lower than the budgeted amounts. Furthermore, the ZimFund Statement of Financial Position as at 31 December 2017 indicates a net income of USD 1.70 million from interest income earned on the ZimFund account. This amount is to be added to the resources of the Fund and is to be used for the same purpose as the donors' contributions. The Project Oversight Committee (POC) was informed of the above savings and income as well as the intention to utilize the savings and part of the income to fund identified works (Consolidation Works) that will enhance and further support the project objectives, results and outcomes of the power project. On February 15, 2018, the POC approved the allocation of USD 1.76 million (USD 10 million from the grant savings and part of the income earned amounting to USD 0.76 million) to fund the Power Consolidation Works. Hence, the timely approval of this proposal by the Bank management will ensure that implementation of the works will be completed within the new ZimFund mandate of 20 October 2020. ZETDC carried out the scoping of the works and will install the procured equipment including commissioning.

1.3 The Operations Manual developed for ZimFund will guide the processing and implementation of the project. The implementation arrangements will remain the same as for EPIRP Phase I and II and the project will be supervised by the Bank, MMU and other Government of Zimbabwe (GoZ) stakeholders. The POC will continue to provide policy and strategic guidance. A Memorandum of Understanding (MOU) in a format acceptable to the Bank will be signed between ZETDC and the GoZ, committing ZETDC to implement the project in the ZimFund timeframe and this will be a condition for the first disbursement.

2 PROJECT FEASIBILITY

2.1 Economic and financial performance

2.1.1 The financial and economic benefits were determined during the initial EPIRP project scoping. As this approval submission is only for the approval of new donor funds towards the completion of the original scope, the previous determined indicators are still deemed valid. The Project intervention will result in improved electricity supply as a result of replacement of transformers, switchgear and ancillary equipment at the identified substations. Indirect economic impact will arise from the improved distribution of power which will re-invigorate the country's economic activities and boost industrial production as well as contribute towards better operations in social institutions through a positive impact on water supply and sewerage services delivery. Power shortages and network faults have mostly affected manufacturing industries, agriculture, mining, and social services.

2.1.2 Both the financial and economic benefits from the work at the substations are measured by the additional revenues from electricity sales and the savings realized by consumers who will forgo using expensive alternative sources of energy such as diesel generators. The alternative cost of supply, as measured by own generation using diesel engines by households, commercial and industrial consumers, has been estimated at USD 45 ¢/kWh compared to the current average tariff of USD 9.86 ¢/kWh which clearly indicates the magnitude of benefit to be realized from consuming grid energy. Based on the analysis carried out in 2013 during the original EPIRP project preparation, the project is both financially and economically viable with EIRR (Base Case) of 38% and NPV of US$ 271.60 million, as summarized in the table below.

Table 1: EPIRP PH II financial and economic indicators

FIRR; FNPV (WACC of 10%)	13.9%, FNPV USD 17.30 million
EIRR; ENPV (EOCK of 12%)	38.0%, ENPV USD 271.60 million

2.2 Environmental and Social impact

2.2.1 The project has been screened for climate change and resulted in a Category 3 project. Given that this request is for a grant extension to undertake improvement of a low voltage network and project management services, it is justified that the project is not vulnerable to climate risk.

2.3 Environment

2.3.1 The Project was validated by ORQR as Category 2 on 23 May 2013. In line with the Bank's Environmental and Social Assessment Procedures (ESAP), subsequently two ESMPs have been prepared by the two sponsoring organizations and the summary of both was disclosed on the Bank's website on August 27, 2013. The classification of Category 2 is mainly because the Project's activities pertain to medium scale rehabilitation of existing infrastructure and addressing environmental pollution. The Project is expected to yield more environmental and social benefits than negative impacts. However, negative impacts are expected to be site specific and temporary such as dust and noise, and will mainly occur during construction. Two other potential impacts are the management of transformer oil decanted from old transformers which may contain

polychlorinated biphenyls (PCB's); and contamination of other oils with PCB's and spillage already observed hence likelihood of soil and ground water contamination. However, the transformers have been removed from the site with the oil already recycled and reused.

2.3.2 The ESMP prepared and disclosed in 2013 included components in EPIRP II Stage I and Stage II. EPIRP Phase II Stage I components are under implementation. Prior to the implementation of these components, detailed ESMPs were prepared for each of the works contracts by the appointed contractors and reviewed by the Implementing Entity (IE) and ZETDC in accordance with local legislation and best practices. No resettlements were foreseen as a result of this project. The works will mainly comprise urgent repairs of existing infrastructure and O&M capacity building which will not result in the relocation of beneficiary communities.

2.3.3 The Bank and ZETDC staff who visited the sites in October 2016 ascertained that there have been no environmental changes that warrant intervention. The sites are operational, will require localized system outages to remove existing equipment except for Turk Substation where the transformer was relocated to Hwange Power Station. The implementation of the Consolidation Works will be monitored in a similar manner as Works to Stage II and Stage I.

2.3.4 ZETDC has an Environmental Management Unit and monitors the works in accordance with local legislation and the approved ESMPs. The monitored environmental aspects among others include compliance with Personal Protective Equipment (PPE), dust suppression and noise pollution. The Unit will also ensure proper handling of transformer oil and other materials that may be hazardous to health as well as monitoring compliance with the daily safety toolbox talks that are a prerequisite before work commences. The Unit will ensure that ZETDC and contractors complies with the requirements of undertaking regular health and HIV awareness campaigns for the workers.

2.3.5 The Project entails mainly brownfield rehabilitation activities with limited environmental and social impacts.

2.4 Climate Change

2.4.1 While the country's main carbon emissions are from power generation, by and large, Zimbabwe contributes minimally to global carbon emissions. Expected climate change impacts in Zimbabwe include excessive or lack of rainfall. However, the current project will not contribute significantly to carbon emissions due to its nature of being a network rehabilitation project rather than a green field power generation project.

2.5 Gender

2.5.1 The energy sector in Zimbabwe, as in many developing countries, is characterized by both gender and class dimensions. While high income households rely on more energy efficient and convenient sources of energy such as electricity and gas, poor people rely largely on wood fuel. Furthermore, rural communities are estimated to meet 94% of their cooking energy requirements from traditional fuels, mainly firewood, while 20% of urban households use wood as the main

cooking fuel. This situation has led to environmental degradation as families encroach on forests in search of firewood.

2.5.2 Among rural households, the collection of firewood is largely done by women and girls and in addition to the time it takes away from productive activities and studying, women and girls are exposed to the danger of sexual assault when collecting firewood in isolated areas. This risk is exacerbated by the increasing deforestation that requires people to travel longer distances in search of firewood. Among urban poor households the lack of options has health implications as a consequence of reliance on petroleum based fuels. Hence, women, girls and young children often suffer the brunt of exposure to wood smoke and fuel fumes as a result of prolonged exposure when cooking.

2.5.3 A gender screening conducted during project appraisal indicates that there are no gender-related risks that could affect achievement of project objectives. The project scope has very marginal gender elements and is assigned a Category 4 according to the Bank's GMS criteria.

2.6 **Social**

2.6.1 For the past decade, Zimbabwe's energy sector has been in decline resulting in chronic power outages that have impacted negatively on households, industry, human capital institutions, and essential basic service delivery. The current power supply continues to be inadequate to meet the needs of households, industry and key human capital development institutions. In 2012, only 37% of households in Zimbabwe had access to grid connected electricity.

2.6.2 The persistent unscheduled power outages have an adverse and sometimes severe impact on hospitals and higher education and tertiary institutions. Public hospitals by and large do not have adequate back-up generator capacity to power all operations for extended periods of time. The largest facilities which predominantly serve poor clients are particularly hard hit as they cannot generate sufficient income to finance alternative power sources. Such facilities include General hospitals in the small urban centers and rural areas which are not fed by dedicated power lines and are therefore subjected to the same frequency of power outages as the surrounding communities. Intermittent power supply at water treatment plants is often a direct cause of disruption of clean water supplies in households as well as essential institutions such as hospitals. The lack of water for even an hour ta medical facilities has serious implications for infection control and the health of patients and staff.

2.6.3 Similar to the situation prevailing at most public hospitals, educational institutions including universities are not spared. Some of the negative impacts of frequent power outages on Lupane University include failure to stick to tutorial and examination schedules, delays in planned work until power supply resumes, the university printing press failing to meet its production targets resulting in outsourcing of printing jobs work which entails additional costs. The key impact of power outages on Lupane University is on its operational efficiency, including, (i) constraints to revenue generation as a result of declining enrolment, (ii) inability to operate its virtual learning centre efficiently, which affects its competitiveness and attractiveness to foreign students, (iii) increased costs to students as a result of re-scheduling tutorials, and (iv) longer duration of studies.

2.7 **Lessons Leant**

2.7.1 Based on the lessons leant from the previous EPIRP phases, ZETDC undertook technical studies which included scoping and costing of the Consolidation Works. The reports were subsequently reviewed by the Implementing Entity (IE) and the MMU. The complex approval process at detailed design stage will be simplified to ensure that there are no delays in approving the designs. The economic challenges facing the country that affect the cash flow of the suppliers will be mitigated by direct payment to the foreign principals of local suppliers. The MMU will actively monitor the execution of works in accordance with a time schedule that will be agreed on when the grant's effectiveness is finalized. Annex 5 is a matrix summarizing risks and mitigation measures that have been identified by the MMU from the experience gained in the implementation of EPIRP Phase I and Phase II.

3 PROJECT DESCRIPTION AND FINANCING PLAN

3.1 **Project Background and Origin**

3.1.1 Under the ZimFund programme, the intervention in the power sector was implemented in two phases taking into account available funds. Phase II implemented after donors committed additional resources. Phase I of the EPIRP was approved in June 2011 and its execution was completed in April 2016. The objective of the project was to improve the reliability and availability of power supply in the country. The project was implemented throughout the country and comprised the rehabilitation of the power generation, transmission and distribution infrastructure.

3.1.2 Phase II was appraised in March 2013. The total estimated cost of Phase II at appraisal stage was USD 32.94 million. However, the committed amount from the donors amounted to only USD 15.42 million. The Phase II intervention was therefore split into Stage I using available resources (USD 15.42 million) and Stage II using resources that would be committed later by Donors. Stage I is currently under implementation with a completion date of 28 February 2019. The Donors approved an additional USD7.32 million for funding Phase II Stage II project. The Bank approved the project on 20 June 2017 and it is now under implementation.

3.1.3 EPIRP PH II Stage I realized a saving of USD 1.00 million because the actual signed contracts were lower than the budgeted amounts (Refer to Annex 1). Furthermore, the ZimFund as at 31 December 2017 had earned interest income to the tune of USD 1.70 million. The POC sanctioned the allocation of USD 0.76 million from USD1.7 million bringing the total budget, including the savings, to USD1.76 million to fund the Power Consolidation Works. The balance amounting to USD 0.94 million was allocated to fund consolidation works for the Urgent Water Supply and Sanitation Rehabilitation Project.

3.2 **Project Objective**

3.2.1 The main objective is to improve the availability and reliability of electricity supply at Stamford (Harare), Mpopoma & Hillside (Bulawayo), and Matabeleland North, which were partly covered under Phase I project.

3.3 **Project Components**

3.3.1 As shown in Table 2 below, the Consolidation Works is comprised of two components: (i) supply and installation of substation ancillaries and equipment; and (ii) Project Management.

Table 2: Consolidation Works Components

	Component 1	**Supply of substation equipment and ancillaries**
1(a)	Supply of Turk 88/33kV Substation 20/30MVA transformer	**Replacement of Turk 88/33kV** ▪ Design, manufacture, transport, deliver and offload onsite 20/30MVA, 88/33kV transformer. ▪ 36kV Neutral current transformer ▪ 88kV Neutral current transformer ▪ Ancillary equipment ▪ Transformer differential relay ▪ Bay control units ▪ Automatic voltage regulation relay ▪ Over Current and Earth Fault relay ▪ 4 x Protection and Control panels
1(b)	Supply of 33kV equipment Stamford Substation and 11kV Switchgear for Mpopoma and Hillside Substations	**Replacement of Stamford Busbar, 11kV Switchgear at Mpopoma and Hillside** ▪ Design, manufacture, transport, deliver and offload onsite: ▪ Stamford Substation: • 450m of Aluminium Tubular Bus bar (80mm diameter) • 42 x Aluminium busbar to busbar connector / clamp • 80 x Aluminium Tee-Connector / clamp • 108 x Spade Clamps • 2 x 33kV Outdoor SF6 Circuit Breaker • 18 x 33kV centre rotating double break isolator • 36 x 33kV Post Insulators • 6 x 33kV Surge Arrestors • 8 x 33kV current transformer • 36 x 33kV Post insulator clamps • 250m of 25mm x 3mm flat Copper bar for earthing • 600 cubic ¾ Stones Structure, Conductors etc.) ▪ Mpopoma Substation: • 17 Panel Switchboard • Ancillary Material (Cable termination and jointing kits etc.) ▪ Hillside Substation: • 7 Panel 11kV Switchboard

		• LV switchboard • 500 x11kV 185mm^2,3Core, 11kV XLPE, Cu, Cable • Ancillary Material (Cable termination and jointing kits etc.)
	Component 2	**Project Management**
2(a)	Consultancy Services (IE)	▪ Provide Project Management and Engineering design
2(b)	Consultancy Services (PA)	▪ Provide Procurement Services

3.4 Project Cost and Financing Arrangements

3.4.1 The total project estimated budget of USD 1.76 million is summarized in the Table 2 and Table 3 by component and category of expenditure respectively. The cost estimates are based on the first and second phases of EPIRP and other works funded by other programs in the country. The estimates included adequate contingency to cater for unforeseen circumstances.

Table.3: Estimated Project Costs

Components	**Total (USD '000)**
A. Power Infrastructure Rehabilitation	
i) Lot 1: Supply of Turk 88/33kV Substation 30MVA transformer	**800.00**
ii) Lot 2: Supply of 33kV equipment for Stamford Substation and 11kV Switchgear for Mpopoma and Hillside Substations.	**750.00**
B. Project Management	
i) IE services	**55.00**
ii) PA services	**45.00**
Subtotal	1, 650.00
Contingency	110.00
Total project cost	**1, 760.00**

Table 4: Categories of expenditure

Categories of expenditure	**Total (USD '000)**
Services	**110.00**
Goods	**1, 550.00**
Sub-total	**1,650.00**
Contingency	**110.00**
Total	**1,760.00**

Note: *The Consolidation Works are rehabilitation in nature. The new and existing equipment requires integration to work as system. The contingency amount is therefore required to cover for unexpected costs during the detailed design process.*

4 PROJECT IMPLEMENTATION STATUS

4.1 Entry into Force and Conditions for First Disbursement

4.1.1 The EPIRP project became effective when the Project Protocol of Agreement was signed on 22 January 2014 and was able to disburse after the conditions precedent to the first disbursement were met on 10 July 2014. The Agreement provided that the Bank's obligation to make first disbursement of the grant was conditional upon the engagement of the Procurement Agent (PA) and Implementing Entity (IE). The GOZ, acting through the Ministry of Finance and Economic Development, entered into an agreement with Crown Agents Limited on 19 March 2014, to extend the provision of procurement services to ZimFund operations to 30 September 2017. First disbursement for PA and IE services will be conditional to the conclusion of supplementary contracts, specific to the Consolidation Works project. The PA contract will be for procurement management services for the duration of the Project and the Implementation services will be until the finalization and delivery of the supply equipment contract.

4.2 Technical Progress

4.2.1 High priority works that were omitted in EPIRP Phases I and II projects due to budgetary constraints informed the scope of the Consolidation Works. Refer to Annex 2 for the detailed description on the scope of works. Annex 6 indicates the location of the projects sites. ZETDC was assessed and found capable of carrying out the installations of the equipment being procured under the Consolidation Works. ZETDC prepared the specification for the materials and equipment required for the Consolidation Works and has in the past done similar installations of the equipment which is being purchased under Consolidation Works. Furthermore, a memorandum of understanding for the execution of the works will be signed between the GoZ and ZETDC committing ZETDC to undertake the works within an agreed timeframe.

4.3 Procurement

4.3.1 The Procurement Agent Contract's has been extended to 30 June 2019 and will cover the proposed Consolidation Works. Negotiations are advanced to extend the IE contract arrangements to cover the equipment supply portion of the Consolidation Works project. The IE will review the specifications and prepare the bidding document in liaison with the Procurement Agent in accordance with ZimFund Operational Manual. Once, the contract for the supply of equipment is finalized and the equipment has been delivered to ZETDC, the IE services will no longer be required as installation and commissioning will be undertaken by ZETDC with the MMU monitoring the progress. The PA will be responsible for: (a) the procurement of goods; (b) the preparation, and subsequent updating of the Procurement Plan; and (c) the preparation of disbursement requests.

4.3.2 Procurement will be carried out in accordance with the provisions of the Bank Procurement Framework, ZimFund Operations Manual and the procurement plan for the Project.

4.4 Implementation Arrangement

4.4.1 The original institutional and implementation arrangements of the Project will continue. The POC provides an overall strategic and policy oversight for the ZimFund. The MMU under the Bank's oversight provides portfolio management support. The Implementing Entity and Procurement Agent procured for the program will provide project management and procurement services respectively on behalf of the Government of Zimbabwe. ZETDC will carry out the installation of the equipment and commissioning and will sign a Memorandum of Understanding with the Government of Zimbabwe. In accordance with ZimFund operational manual, MMU will be responsible for the implementation monitoring and quality control of the consolidation works. The MMU will also provide the POC with operational and financial information and reports on implementation progress as required. An updated implementation schedule of the project has been included in Annex 4 showing status and expected activities. Delivery of the materials and equipment for the Consolidation Works project will be completed by April 2020.

4.5 Monitoring and Evaluation

4.5.1 The Project result matrix has been updated on the basis of the technical assessment and recent data available. It was also prepared in line with the new template approved by the Bank. The Zimbabwe Country Office will play an active role in the coordination, country dialogue while the MMU, through the resident Measurement and Verification Expert will undertake the supervision and monitoring during project implementation.

4.6 Social and Environmental Management Plan

4.6.1 An Environmental and Social Management Plan specific to each site has been developed for implementation and monitoring based on the overall established ESMP for the project. The Plan will be systematically included in the works packages for implementation by the ZETDC and its implementation will be monitored by the MMU. There will also be oversight provided by the representatives of the Environmental Management Authority.

5 JUSTIFICATION FOR UTILIZATION OF GRANT SAVINGS TO FUND CONSOLIDATION WORKS

5.1 The electricity network infrastructure in Zimbabwe requires significant rehabilitation upgrade and strengthening. The inadequate provision or lack of reliable power supply services has affected the people of Zimbabwe more so the poor. There is need to build upon the recent power sector interventions so as to improve the power supply infrastructure in the country. A delay in improvement of power supply services has high tangible and nontangible economic and social costs. Substantial financial support is required to address infrastructure-related fragility, improve on service delivery and energy security interventions. The Consolidation Works support the Zimbabwe Transitional Stabilization Programme (TSP) October 2018 – December 2020, which serves as the nation's economic development blueprint and the basis on which all Government policies, programmes and projects are formulated. The TSP outlines policies, strategies and projects that guide Zimbabwe's social and economic development interventions up to December

2020, simultaneously targeting immediate quick-wins and laying a robust base for economic growth for the period 2020-2030.

5.2 Furthermore, the Project is aligned to the Bank Group's Zimbabwe Country Brief (2019-2020), Pillar II of "Scaling infrastructure investments to revive growth". The Project is critical to the rehabilitation of the Zimbabwe power system network and will improve the availability and reliability of electricity supply thereby supporting water supply and sanitation delivery as well as agriculture irrigation needs.

5.3 The project is also aligned with the Bank's Ten-Year Strategy (TYS) 2013-2022, "High-5s" and the Bank's Energy Sector Policy. It is aligned to two of the five TYS operational areas, infrastructure development and private sector development. The project will also contribute to the achievement of three of the five "High-5s" objectives; Light up and Power Africa; Industrialize Africa (making electrical power available for the creation of small and medium-sized industries); and Improve the Quality of Life of Africans.

5.4 The overall performance of the Bank Group's active portfolio in Zimbabwe is rated satisfactory, with one problem project. Average age of the portfolio is 3.3 years with an overall cumulative disbursement rate of 50%. Key portfolio issues include market failure to attract best qualified bidders which has called for re-launching of tenders hence delaying procurement process, particularly for ZimFund projects. Capacity constraint in procurement is also an issue, which the Bank is addressing by providing capacity building support to the relevant procurement teams at the project level as well as extending support at the country level through the implementation of the Procurement Roadmap for the country. Currently, there are no previously approved grants in the sector where conditions precedent to first disbursements have not been met. Annex 4 is the status as at 4 February 2019.

6 LEGAL INSTRUMENTS AND AUTHORITY

6.1 Legal Instrument

6.1.1 The legal instrument for financing the Project will be a Protocol of Agreement between the Republic of Zimbabwe (as Recipient) and the Bank in its capacity as the administrator of the ZimFund.

6.2 Conditions Associated with Bank's Interventions

6.2.1 Conditions Precedent to Entry into Force of the Grant

The Protocol of Agreement will enter into force on the date of its signature by the Recipient and the Bank.

6.2.2 Conditions Precedent to First Disbursement of the Grant

The obligation of the Bank to make the first disbursement of the Grant shall be subject to the satisfaction of the following conditions by the Recipient:

(a) The execution and delivery of an Agreement which covers components under the Project and extends the term of Project implementation services with the Implementing Entity up to the finalization of the contract for the Supply of Consolidation Works materials , in form and substance satisfactory to the Bank;

(b) The execution and delivery of an Agreement which covers components under the Project and extends the term of the Project procurement services with the Procurement Agent up to the Project Closing Date, in form and substance satisfactory to the Bank; and

(c) The execution and delivery of an Agreement with the Zimbabwe Electricity Transmission and Distribution Company ("ZETDC") committing ZETDC to carry out installation and commissioning of Project works equipment within an agreed timeframe, in form and substance satisfactory to the Bank.

6.2.3 **Compliance with Bank Policies**

This project complies with applicable Bank Group policies.

7 RECOMMENDATION

7.1 Management recommends that the Board of Directors approve a grant of USD 1,760,000 as additional financing, from the resources of the ZimFund, to finance the Project, under the terms and conditions stipulated in this report.

ANNEXES

ANNEX 1 –EPIRPII STAGE I – FINANCIAL STATUS

BANQUE AFRICAINE DE DEVELOPPEMENT			AFRICAN DEVELOPMENT BANK					
Date : 11.02.2019 / 14:58:55			Page : 1					
LIST OF CONTRACTS PER LOAN								
Source of Financ	Project Id : P-ZW-FA0-002		Old Loan No :					
Country :	Date Approved : 18.12.2013		Amount Approved : USD 15.420.000,00					
Loan Number	Date Signed : 22.01.2014		Amount Signed : USD 15.420.000,00					
Project Title	Effective date : 09.07.2014		Amount cancelled : USD 0,00				Includes USD1.0million allocated to Consolidation Works	
Borrower Name	Closing Date : 28.02.2019		Amount reactivated : USD 0,00					
Executive Agenc	RITY		Undisbursed Amount : USD 2.660.471,67					
Code	**Beneficiary.**	**Category**	**Amount**	**Amendement**	**Total Contract**	**Amount disbursed**	**Amount undisbursed**	**COMMENTS**
Contract	Contract Ref				Value			
9900029056	Parsons Brinckerhoff Africa Pty Ltd	SERVICES	$1,166,307.00	$714,307.51	$1,880,614.51	$1,563,037.62	$317,576.89	
5000041650	ZW EPIRPII 001							
9900036479	BAKER TILLY GWATIDZO CHARTERED ACCOU	SERVICES	$82,750.00	$44,175.00	$126,925.00	$104,837.50	$22,087.50	Audit fees for 2018 &2019
5000044153	EPIRPII/003 External Project Audit							
9900028554	THE CROWN AGENTS FOR OVERSEA GOVER	SERVICES	$272,976.00	$0.00	$272,976.00	$261,795.01	$11,180.99	Funds adequate to cover for outstanding payments for EPIRPII 004 and EPIRPII 005
5000044180	EPIRPII/002 Procurement Agent							
9900023667	Angelique International Ltd	WORKS	$6,428,024.99	$111,389.32	$6,539,414.31	$6,213,942.90	$325,471.41	Component completed and closed
5000045898	TX Rehabilitation Marvel & Chertsey 004							
9900041459	AQUALOGUS ENGENHARIA E AMBIENTE LDA	SERVICES	$279,090.00	$0.00	$279,090.00	$279,090.00	$0.00	Component completed and closed
5000045980	WATER BALANCE STUDY 006							
9900035068	Technofab Engineering Limited	WORKS	$2,859,454.25	$584,527.52	$3,443,981.77	$2,860,136.26	$583,845.51	Component to be completed by end of February 2019
5000045986	EPIRPII 005 Distribution rehabilitation							
9900042510	BARZEM ENTERPRISES PVT LTD	GOODS	$1,494,799.04	$0.00	$1,494,799.04	$1,494,799.04	$18,110.00	Component completed and closed
5000046645	EPIRPII 007 Hwange Mobile Plant Equipmen							
			$12,583,401.28	$1,454,399.35	$14,037,800.63	$12,777,638.33	$1,278,272.30	
Summary In Loan Currency								
TOTAL GRANT AMOUNT			15,420,000.00					
TOTAL GRANT AMMENDED SIGNED CONTRACTS			$14,037,800.63					
TOTAL SAVINGS(GRANT - SIGNED CONTRACTS)			1,382,199.37					
CONSOLIDATION WORKS			**1,000,000.00**					
UNALLOCATED AMOUNT			**382,199.37**					
Amount Disbursed		USD	$12,777,638.33					
Amount Un Disbursed		USD	$1,278,272.30					
TOTAL GRANT AMMENDED SIGNED CONTRACTS			**$14,055,910.63**					

ANNEX 2 –DETAILED SCOPE OF THE CONSOLIDATION WORKS

The scope of Consolidation Works as detailed in the following paragraphs below were presented to and approved by the POC.

a) **Replace Ancillary Equipment Stamford 132/33kV Substation in Harare:**

The EPIRP Phase I financed the supply, installation and commissioning of a 90 MVA, 132/33 kV, transformer at Stamford 132/33kV substation, which is an alternative supply to Morton Jaffrey Water Treatment Works which supplies Harare with water. However, the loading of the transformer is currently being restricted to 45MVA by ancillary equipment in the 33kV switchyard, which were not replaced during Phase I of the project. Therefore, to make full use of the transformer, ZETDC has requested that the ancillary equipment be funded to enable the upgrade at an estimated cost of USD 280,000.00. ZETDC will carry out the installation of ancillary equipment.

b) Replacement a 30MVA 88/33kV transformer at Turk Substation:

The Turk 88/33kV Substation is located about 56 km north-east of City of Bulawayo is supplied with power from Marvel 88 kV Substation and feeds part of Matabeleland North Province, which include rural Health service centers with 14 clinics, 40 Primary schools and 21 High schools. In March 2016, there was a catastrophic fault at Hwange Power Station (HPS) 88 kV Substation when one of the transformers that supplies the HPS with auxiliaries failed beyond repair. The remaining transformer could not cater for the crucial load and the 50MVA transformer which was in service at Turk Substation was removed and transferred to Hwange 88kV Substation in order to avoid a possible total shutdown of Hwange Power Station. This transformer relocation left Turk 88kV substation without a transformer. A temporary arrangement was put in place where the existing 88kV line from Marvel Substation was energized at 33kV over a distance of 56 kilometres to Turk Substation. This meant that areas supplied from the Turk substation (Lupane University and others) were going to be supplied from Marvel substation which is over 120km away. This has resulted in unreliable power supply, severe voltage drop and a significant increase in network losses throughout the Matabeleland North province.

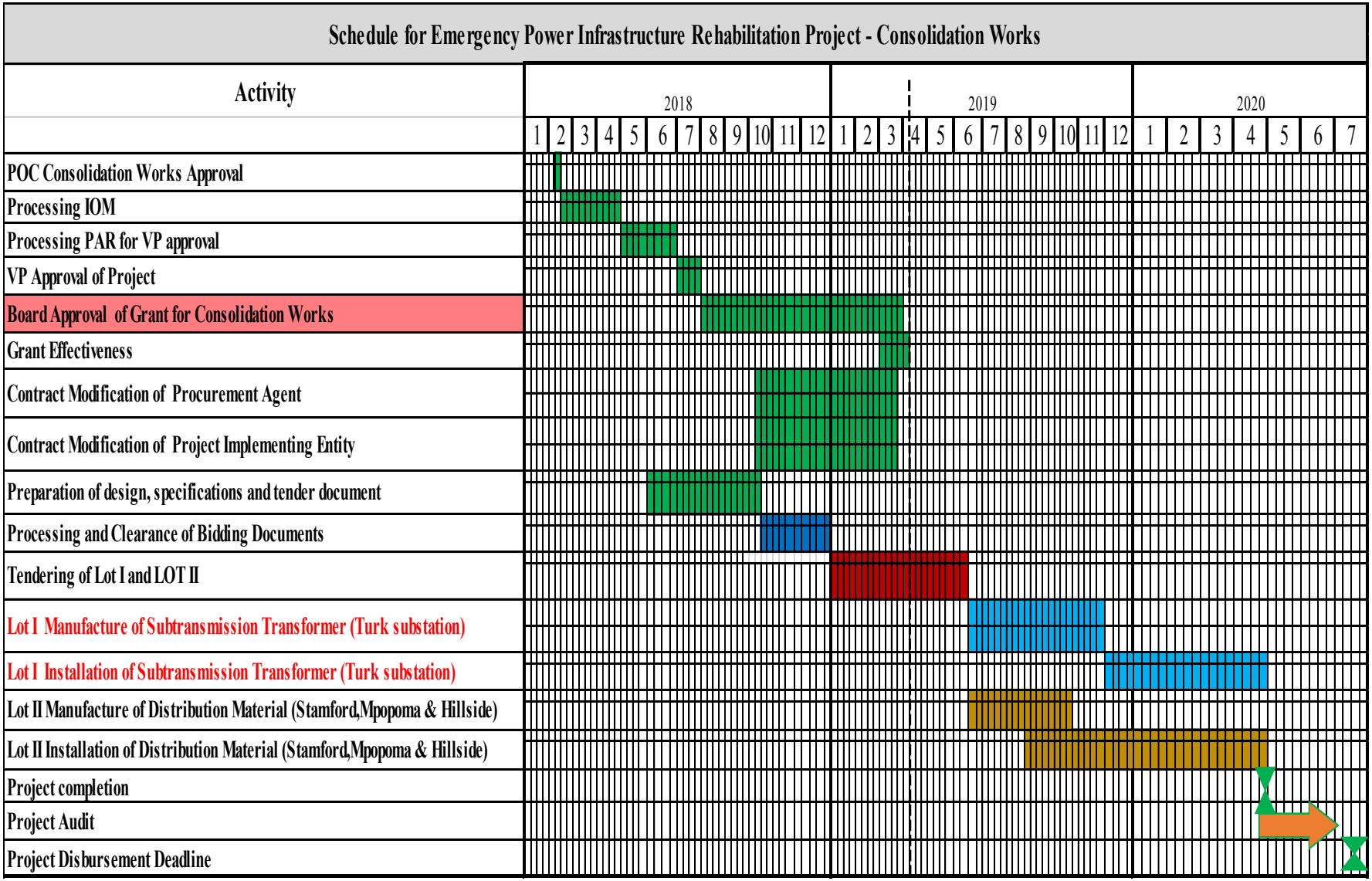
c) Replacement of the 11 kV switchboard at Mpopoma Substation in Bulawayo:

On 7 February 2017, due to an electrical fault, a fire erupted resulting in severe damage of the 11kV switchboard thus causing disruptions in the power supply to the areas supplied from this substation. Mpopoma substation was commissioned in 1959 has exceeded its recommended useful technical life of 30 years and as such the 11kV switchboard is prone to operational failure. The substation feeds Mpilo hospital that is a major referral hospital, the western high-density suburbs of Bulawayo including strategic fuel reserves for Matabeleland. It should be noted that ZimFund under EPIRP 1 recently rehabilitated the substation but the 11kV switchboard was not included in the scope due to limited resources.

d) Replacement of 11 kV Switchboard at Hillside Rd Substation in Bulawayo:

The substation supplies residential suburbs, hospitals and some commercial customers. One of the feeders supplies power to Mater Dei Hospital where a 500kVA ground mounted transformer was installed under ZimFund EPIRP I to supply power to the hospital and the surrounding areas. Due to limited funding, the 11kV switchboard was not replaced, which has old equipment that has exceeded useful technical life of 20 years and as such it is prone to operational failure.

ANNEX 3 - PROJECT IMPLEMENTATION SCHEDULE



ANNEX 4– STATUS OF COUNTRY PORTFOLIO

Bank Group Financed Active Operations in Zimbabwe, as at 4th February 2019											
Project Name	Approval date	Effective 1st disb	Planned final	Disbursement Ratio	Window	Amount For Window	Sector Name	IP (Impl.Progress)	DO (Dev. Objectives)	PFI STATUS	Project Age in YEARS
AGRICULTURE						**7,907,153.19**					
LAKE HARVEST AQUACULTURE PROJECT	10/26/2011	1/3/2013	12/17/2014	100.00	[ADB]	5,750,389.95	Agriculture	1.56	2.00	PP	7.40
SUPPORT TO THE BEEF AND LEATHER VALUE CHAIN PROJECT	6/11/2015	11/24/2016	6/29/2020	43.55	[OTHERS	718,798.74	Agriculture	0.00	0.00		3.70
SUPPORT TO THE BEEF AND LEATHER VALUE CHAIN PROJECT	10/19/2015	12/2/2016	6/29/2020	30.23	[ADF]	719,165.76	Agriculture	0.00	0.00		3.40
WATER SUPPLY AND SANITATION						**51,497,579.92**		**0.00**	**0.00**		**0.00**
URGENT WATER SUPPLY AND SANITATION REHABILITATION PHASE 2	10/7/2013	7/10/2014	9/30/2019	88.38	[OTHERS	14,260,967.07	Water Sup/Sanit	4.00	3.00	NPP	5.40
ADDITIONAL FINANCING TO URGENT WATER SUPPLY AND SANITATION R	9/30/2015	11/17/2015	9/30/2019	68.16	[OTHERS	11,608,599.71	Water Sup/Sanit	4.00	3.00	NPP	3.40
BULAWAYO WATER AND SEWERAGE SERVICES IMPROVEMENT PROJECT	12/9/2015	5/17/2016	12/31/2020	23.50	[ADF]	24,000,000.00	Water Sup/Sanit	3.00	3.00	NPP	3.20
ZIMBABWE INTEGRATED URBAN WATER MANAGEMENT	12/21/2015	8/26/2016	12/31/2019	35.79	[OTHERS	1,628,013.14	Water Sup/Sanit	3.00	3.00	NPP	3.20
POWER						**53,145,483.43**		**0.00**	**0.00**		**0.00**
EMERGENCY POWER INFRASTRUCTURE REHABILITATION PROJECT II (ST	12/18/2013	7/9/2014	2/28/2019	82.75	[OTHERS	11,083,876.63	Power	3.00	3.00	NPP	5.20
ALASKA-KAROI TRANSMISSION LINE	12/16/2016	5/18/2017	7/31/2020	0.00	[ADF]	380,000.00	Power	0.00	0.00		2.20
ALASKA-KAROI TRANSMISSION LINE	12/16/2016	5/18/2017	7/31/2020	2.31	[ADF]	13,160,000.00	Power	0.00	0.00		2.20
EMERGENCY POWER INFRASTRUCTURE REHABILITATION PROGRAMME PHAS	6/20/2017	8/28/2017	3/31/2019	0.00	[OTHERS	5,261,606.80	Power	0.00	3.00		1.70
MULTINATIONAL KARIBA DAM REHABILITATION PROJECT	12/15/2014	11/23/2015	12/31/2025	5.00	[ADF]	23,260,000.00	Power	0.00	0.00		4.10
FINANCIAL SECTOR						**17,969,968.59**		**0.00**	**0.00**		**0.00**
CENTRAL AFRICA BUILDING SOCIETY	4/20/2016	9/5/2018	1/15/2020	100.00	[ADB]	17,969,968.59	Finance	3.00	0.00	NPP	2.90
SOCIAL SECTOR						**5,110,000.00**		**0.00**			
YOUTH AND WOMEN EMPOWERMENT PROJECT	10/31/2016	5/10/2017	6/30/2020	46.22	[ADF]	3,410,000.00	Social	0.00	0.00	NPP	2.30
INNOVATIVE SOLUTIONS TO SUPPORT LIVELIHOOD OF VULNERABLE COM	6/13/2018	10/1/2018	6/30/2021	45.37	[ADF]	1,000,000.00	Multi-Sector	0.00	0.00	NPP	0.70
EMMERGENCY ASSISTANCE TO AVERT AND CONTROL CHOLERA	12/17/2018	12/21/2018	12/21/2019	100	[OTHERS	700000	Social	0.00	0.00	NPP	0.2
MULTI-SECTOR						**21,120,000.00**		**0.00**	**0.00**		**0**
CAPACITY BUILDING PROJECT FOR PUBLIC FINANCE AND ECONOMIC MA	12/5/2012	7/4/2013	3/31/2019	96.32	[ADF]	16,120,000.00	Multi-Sector	3.00	0.00	NPP	6.30
STRENGTHENING INSTITUTIONS OF TRANSPARENCY AND ACCOUNTABILIT	7/10/2015	11/23/2015	3/31/2019	93.78	[ADF]	2,000,000.00	Multi-Sector	3.00	3.00	NPP	3.70
INSTITUTIONAL SUPPORT FOR STATE ENTERPRISES REFORMS AND DELI	1/24/2017	7/24/2017	6/30/2020	23.42	[ADF]	3,000,000.00	Multi-Sector	4.00	3.00	NPP	2.10
GRAND TOTAL				**51.83**		**156,750,185.13**		**3.156**	**2.89**		**3.33**

ANNEX 5: ZIMFUND PHASE II RISK MATRIX

Presented below are the perceived risks for the project. From the table below, it can be noticed that most of the perceived risks are scored as "Medium" meaning that the MMU needs to monitor and maintain strict measures as implementation continues.

Risk Category	Actual Risk	Extent of MMU's control over the identified risk	Risk Assessment			Actual Risk
			Probability Rating	Impact Rating	Score & Colour	
Cost Risks	Cost overrun	High	2	3	6	Carry out fairly detailed scoping exercise to meet the project objectives with due allowance for unforeseen contingencies.
	Liquidity challenges affecting smooth payments for services by local service providers	Medium	3	3	9	Ensure financial soundness of winning bidder to ensure smooth execution. Hold Regular meetings with Contractor and Subcontractors to give them a platform to air their liquidity concerns, if any and engage Government for solution.
Contextual risks	Corruption and procurement malpractices.	High	2	5	10	Adhere to the Bank's procurement of Works, Goods and Services procedures Keep vigil on possible corruption, unethical and procurement malpractices and investigate, if required.

	Local Sub-contractors being incapacitated by challenges in the financial and economic sectors and supply of materials necessary in construction such as cement and diesel	Low	3	4	12	Engage with the IEs to ensure that the contractor and subcontractors anticipate changes within the local financial and economic sectors as well as from the material suppliers and stay ready to institute remedial measures
Post implementation risks	Vandalism of refurbished installations	Low	3	4	12	Enactment and enforcement of legislation that criminalizes acts of vandalism and reduction in power outages ensuring that the system is live most of the time. Improve customer communication and feedback options.
	Benefits not reaching the intended beneficiaries	Medium	2	4	8	Engage with targeted beneficiaries at project inception Stage to ensure the design and implementation in line with the project objectives and outcomes. Carry out post implementation project verification. Monitor and ensure continued stakeholder engagement for any corrective action;
	Failure to properly operate, and maintain the rehabilitated facilities	Medium	2	4	8	Build Capacity of operating staff within beneficiary institutions and ensure availability of manuals so that end users are sufficiently equipped to carry on trouble shooting.
	Weak institutional capacity	Medium	2	4		Engage beneficiary institutions on a regular basis to ensure long term sustainability of the project.

Probability Ratings (What is the likelihood of this risk taking place)

1	2	3	4	5
Very unlikely to happen/ Might not happen at all.	Unlikely to happen	50-50 chances of happening of not happening	High likelihood of happening	Will definitely happen

Impact Ratings *(What is the effect of this risk on project outcomes if it happens and not mitigated)*

1	2	3	4	5
Minimum – not much alteration in any of the key project outcomes	Mild – All or Key outcomes will be achieved but some outputs will not be achieved	Strong – some key outcomes ***might*** be compromised	Very damaging – significant reduction in intensity of key outcomes	Catastrophic – complete negation of project outcomes

Scores and Colour Codes *(The score is the product of the Probability Rating and the Impact Rating).*

1-5	6-10	11-15	16-25
Low risk, monitor and manage while continuing with implementation	Medium risk, closely monitor and manage while continuing with implementation with due diligence.	High risk, review and introduce additional controls to lower risk level. Proceed with implementation with caution.	Extreme risk, Stop! Immediately introduce further control measures to lower the risk. Reassess before proceeding.

ANNEX 6 – MAP OF THE COUNTRY AND LOCATION OF PROJECT SITES