

FIRST AMENDMENT

TO

MILLENNIUM CHALLENGE COMPACT

BETWEEN

THE UNITED STATES OF AMERICA
ACTING THROUGH

THE MILLENNIUM CHALLENGE CORPORATION

AND

THE REPUBLIC OF MALAWI

**FIRST AMENDMENT TO
MILLENNIUM CHALLENGE COMPACT**

PREAMBLE

This FIRST AMENDMENT TO MILLENNIUM CHALLENGE COMPACT (this “*Amendment*”), is made by and between the United States of America, acting through the Millennium Challenge Corporation, a United States government corporation (“*MCC*”), and the Republic of Malawi (“*Malawi*”), acting through its government (“*Government*”) (individually a “*Party*” and collectively, the “*Parties*”). All capitalized terms used in this Amendment that are not otherwise defined herein have the meanings given to such terms in the Compact (as defined below).

Recalling that the Parties signed the Millennium Challenge Compact between the United States of America, acting through MCC, and Malawi acting through the Government, on April 7, 2011 (the “*Compact*”), pursuant to which MCC grants to Malawi, subject to the terms and conditions of the Compact, MCC Funding in an amount not to exceed Three Hundred Fifty Million Seven Hundred Thousand United States Dollars (US\$350,700,000) for a Compact Goal to reduce poverty through economic growth in Malawi;

Recognizing that the Parties desire to amend certain parts of the Compact, including its Annexes, as more fully described in this Amendment;

Intending to memorialize these amendments to certain aspects of the Compact, including its Annexes, without changing the overall value or term of the Compact;

NOW, THEREFORE, the Parties hereby agree as follows:

AMENDMENTS

1. Amendment to Section 1.2.

Section 1.2 (*Program Objective*) of the Compact shall be amended to read as follows:

“Section 1.2 Program Objective. The collective objective of the Program (the “*Program Objective*”) is to (i) reduce the cost of doing business in Malawi, (ii) expand access to electricity for the Malawian people and businesses, and (iii) increase value-added production in Malawi. The Program consists of the projects described in Annex I (each a “*Project*” and collectively, the “*Projects*”).”

2. Amendment to Section 1.3.

Section 1.3 (*Project Objective*) of the Compact shall be amended to read as follows:

“Section 1.3 Project Objectives. The objectives of the Projects (each a “*Project Objective*” and collectively, the “*Project Objectives*”) are:

(a) The objective of the Infrastructure Development Project is to improve the availability, reliability, and quality of the power supply by increasing the throughput capacity and stability of the national electricity grid and increasing efficiency of hydropower generation.

(b) The objective of the Power Sector Reform Project is to create an enabling environment for future expansion of the power sector by strengthening sector institutions and enhancing regulation and governance of the sector.

(c) The objective of the Environmental and Natural Resource Management Project is to mitigate the growing problems of aquatic weed infestation and excessive sedimentation in the Shire River Basin to reduce the costly disruptions to Malawi's hydropower generation.”

3. Amendment to Annexes I – III, V.

Annexes I, II, III, and V of the Compact shall be amended to read as indicated in Annexes I, II, III, and V, which are attached to and an integral part of this Amendment agreement.

GENERAL PROVISIONS

4. Amendment Entry into Force.

This Amendment shall enter into force on the later date (the “*Amendment Entry into Force Date*”) of (i) the date of the last letter in an exchange of letters between the Principal Representatives of each Party confirming that each Party has completed its respective domestic requirements for entry into force of this Amendment or (ii) the date of entry into force of the Compact.

5. Provisional Application.

Upon signature of this Amendment, the Parties shall provisionally apply this Amendment until the Amendment Entry into Force Date.

SIGNATURE PAGE BEGINS ON THE NEXT PAGE

IN WITNESS WHEREOF, the undersigned, duly authorized by their respective governments, have signed this Amendment, in duplicate.

FOR THE UNITED STATES OF AMERICA,
ACTING THROUGH THE MILLENNIUM
CHALLENGE CORPORATION

FOR THE REPUBLIC OF MALAWI,
ACTING THROUGH THE MINISTRY OF
FINANCE

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/ s /

Name: Jonathan Bloom
Title: Vice President, Compact
Operations (Acting)
Place: Washington, DC
Date: 26 July 2013

Name: Ken Lipenga
Title: Minister of Finance
Place: Lilongwe
Date: 31st July 2013

MILLENNIUM CHALLENGE COMPACT

PREAMBLE

This MILLENNIUM CHALLENGE COMPACT (this “*Compact*”) is between the United States of America, acting through the Millennium Challenge Corporation, a United States government corporation (“*MCC*”), and the Republic of Malawi (“*Malawi*”), acting through its government (the “*Government*”) (individually a “*Party*” and collectively, the “*Parties*”). Capitalized terms used in this Compact will have the meanings provided in Annex V.

Recognizing that the Parties are committed to the shared goals of promoting economic growth and the elimination of extreme poverty in Malawi and that MCC assistance under this Compact supports Malawi’s demonstrated commitment to strengthening good governance, economic freedom and investments in people;

Recalling that the Government consulted with the private sector and civil society of Malawi to determine the priorities for the use of Millennium Challenge Corporation assistance and developed and submitted to MCC a proposal for such assistance to achieve lasting economic growth and poverty reduction;

Understanding that MCC wishes to help Malawi implement the program described herein (as such description may be amended from time to time in accordance with the terms hereof, the “*Program*”) to counter a key binding constraint to sustained growth and diversification in the Malawi economy; and

Acknowledging that to implement the Program, MCC wishes to make available to the Government an amount not to exceed Three Hundred and Fifty Million Seven Hundred Thousand United States Dollars (US\$350,700,000), subject to the terms and conditions of this Compact;

The Parties hereby agree as follows:

ARTICLE 1.

GOAL AND OBJECTIVES

Section 1.1 Compact Goal. The goal of this Compact is to reduce poverty through economic growth in Malawi (the “*Compact Goal*”).

Section 1.2 Program Objective. The collective objective of the Program (the “*Program Objective*”) is to (i) reduce the cost of doing business in Malawi, (ii) expand access to electricity for the Malawian people and businesses, and (iii) increase value-added production in Malawi. The Program consists of the projects described in Annex I (each a “*Project*” and collectively, the “*Projects*”).

Section 1.3 Project Objectives. The objectives of the Projects (each a “*Project Objective*” and collectively, the “*Project Objectives*”) are:

(a) The objective of the Infrastructure Development Project is to improve the availability, reliability, and quality of the power supply by increasing the throughput capacity and stability of the national electricity grid and increasing efficiency of hydropower generation.

(b) The objective of the Power Sector Reform Project is to create an enabling environment for future expansion of the power sector by strengthening sector institutions and enhancing regulation and governance of the sector.

(c) The objective of the Environmental and Natural Resource Management Project is to mitigate the growing problems of aquatic weed infestation and excessive sedimentation in the Shire River Basin to reduce the costly disruptions to Malawi's hydropower generation.

ARTICLE 2.

FUNDING AND RESOURCES

Section 2.1 Program Funding.

Upon entry into force of this Compact in accordance with Section 7.3, MCC will grant to the Government, under the terms of this Compact, an amount not to exceed Three Hundred and Forty One Million Five Hundred and Eighty Thousand United States Dollars (US\$341,580,000) ("**Program Funding**") for use by the Government to implement the Program. The allocation of Program Funding is generally described in Annex II.

Section 2.2 Compact Implementation Funding.

(a) Upon signing of this Compact, MCC will grant to the Government, under the terms of this Compact and in addition to the Program Funding described in Section 2.1, an amount not to exceed Nine Million One Hundred and Twenty Thousand United States Dollars (US\$9,120,000) ("**Compact Implementation Funding**") under Section 609(g) of the Millennium Challenge Act of 2003, as amended (the "**MCA Act**"), for use by the Government to facilitate implementation of the Compact, including for the following purposes:

- (i) financial management and procurement activities;
- (ii) administrative activities (including start-up costs such as staff salaries) and administrative support expenses such as rent, computers and other information technology or capital equipment;
- (iii) monitoring and evaluation activities;
- (iv) feasibility and any remaining project preparatory studies; and
- (v) other activities to facilitate Compact implementation as approved by MCC.

The allocation of Compact Implementation Funding is generally described in Annex II.

(b) Each Disbursement (as defined below) of Compact Implementation Funding is subject to satisfaction of the conditions precedent to such Disbursement as set forth in Annex IV.

(c) If MCC determines that the full amount of Compact Implementation Funding available under Section 2.2(a) exceeds the amount that reasonably can be utilized for the purposes set forth in Section 2.2(a), MCC, by written notice to the Government, may withdraw the excess amount, thereby reducing the amount of the Compact Implementation Funding available under Section 2.2(a) (such excess, the "**Excess CIF Amount**"). In such event, the amount of Compact Implementation Funding granted to the Government under Section 2.2(a) will be reduced by the Excess CIF Amount, and MCC will have no further obligations with respect to such Excess CIF Amount.

ANNEX I

PROGRAM DESCRIPTION

This Annex I describes the Program that MCC Funding will support in Malawi during the Compact Term.

A. PROGRAM OVERVIEW

1. Background and Consultative Process.

(a) Background.

Malawi is a landlocked country in southeast Africa that gained independence in 1964 and has a population of approximately 13.8 million people. Although Malawi has seen economic growth average seven percent over the last six years, an estimated 51 percent of the population lives on less than US\$1.25 a day, and gross national income per capita stands at approximately US\$880 (purchasing power parity (“*PPP*”) adjusted). The economy remains heavily dependent on rain-fed agriculture and primary commodity exports, and sustained economic growth and development require increasing productivity of industry, agriculture, and services, as well as diversification of the economy.

Malawi’s economy faces numerous challenges, including a power sector that is one of the most severely constrained in sub-Saharan Africa. The economic costs of an unreliable and inadequate power supply, as well as the costs of inappropriate pricing and high technical and non-technical losses, are estimated at seven to nine percent of GDP. In order to improve the prospects for sustained growth, poverty reduction, and improved delivery of health and education services, the power sector must be stabilized and expanded. Building on its current efforts to reform the power sector, the Government seeks to invest in infrastructure, turn around its electricity utility – Electricity Supply Corporation of Malawi (“*ESCOM*”) – and develop an enabling legal and regulatory environment for investment in the sector. The Program is designed to support these efforts and assist Malawi with the sector’s transformation.

(b) Consultative Process.

Malawi was deemed eligible for Compact assistance in 2007. To coordinate the Compact development process, the Government formed a core team (the “*MCA-Malawi Core Team*”) in March 2008 to work with MCC to develop the Program. In May 2008, the MCA-Malawi Core Team initiated an analysis of constraints to economic growth in Malawi, in collaboration with the World Bank, the U.K. Department for International Development and the African Development Bank. Pursuant to this analysis and an extensive consultative process with key stakeholders, the power sector was identified as a key constraint to economic growth in Malawi.

2. Description of Program and Beneficiaries.

The Program is designed to reduce poverty in Malawi by addressing the constraints of the power sector to economic growth. The Program Objective is to reduce the cost of doing business, expand access to electricity for the Malawian people and businesses, and increase value-added production in Malawi. The Program consists of three Projects:

- The Infrastructure Development Project’s objective is to improve the availability, reliability, and quality of the power supply by increasing the throughput capacity and stability of the national electricity grid and increasing efficiency of hydropower generation through investments in infrastructure development, including investment by the Government in new generation, and MCC Funding for generation and increased transmission and distribution capacity;
- The Power Sector Reform Project’s objective is to create an enabling environment for future expansion of the power sector by strengthening sector institutions and enhancing regulation and governance of the sector by rebuilding ESCOM into a financially strong, well-managed utility and developing a regulatory environment that supports public and private investment in new generation capacity and expanded access; and
- The Environmental and Natural Resource Management Project’s objective is to mitigate the growing problems of aquatic weed infestation and excessive sedimentation in the Shire River Basin to reduce the costly disruptions to Malawi’s hydropower generation by investing in weed and sediment management, and implementing better environmental and natural resource management in upstream areas.

By reducing power outages and technical losses, enhancing the sustainability and efficiency of hydropower generation, and increasing the potential kilowatt hours (“*kWh*”) of throughput to electricity consumers, the Program will reduce energy costs to enterprises and households, improve productivity in agriculture, manufacturing, and service sectors, and support the preservation and creation of employment opportunities in the economy. The Parties expect the Program to result in the following benefits and distribution thereof:

- An estimated 983,000 individuals will benefit over a 20 year period through reduced domestic and enterprise energy costs, leading to increased profits; and
- An estimated US\$872.6 million of income benefits to Malawi at the present discounted rate of 10 percent.

These estimated income benefits do not include the full value of the benefits of improved governance and regulation in the power sector, and how reform of the sector will translate to increased poverty reduction. It is also anticipated that improved power supply will lead to improvements to the delivery of health, education, and other public services, which are likely to be important both economically and socially. Projected results depend upon complementary investments in generation capacity, as well as the successful implementation of the infrastructure investments, the sustained turnaround of ESCOM, and the realization of power sector reforms.

B. DESCRIPTION OF PROJECTS

Set forth below is a description of each of the Projects that the Government will implement, or cause to be implemented, using MCC Funding to advance the applicable Project Objective. In addition, specific activities that will be undertaken within each Project (each, an “*Activity*”), including sub-activities, are also described.

1. Infrastructure Development Project.

The Infrastructure Development Project will rehabilitate, upgrade and modernize ESCOM's generation, transmission and distribution assets in most urgent need of repair, in order to preserve existing generation, improve the capacity of the transmission system, and increase the efficiency and sustainability of hydropower generation. To facilitate the development and implementation of the Program, MCC is providing support for the Government's ability to identify and prioritize investments in the sector by developing an integrated resource plan. MCC Funding will support significant investments in the power system infrastructure to preserve generation and stabilize and modernize the transmission and distribution network.

The Infrastructure Development Project is only viable, technically and economically, if the Government and ESCOM maintain current generation assets and expand the generation capacity of the power system. Under the Infrastructure Development Project, the Government will invest in new generation by completing the construction of the Kapichira II hydropower plant. Additionally, the Government will continue to seek to attract sustainable investment from the private sector and other donors to add significant amounts of new generation to the system.

The Parties expect that by the end of the Compact Term, the Infrastructure Development Project, together with the Government's commitment to complete construction of Kapichira II, will result in increases in generation capacity (from 286 MW to approximately 352 MW), network throughput capacity (from 310 MW to approximately 960 MW) and distribution capacity (from 868 MVA to approximately 1,078 MVA), and a reduction of total system losses from 20-25 percent to 18 percent.

(a) Integrated Resource Plan.

To facilitate the development and implementation of the Program, MCC is supporting the development of the Malawi 2020 Integrated Resource Plan ("**IRP**") to enhance the Government's efforts to add generation. The objective of the IRP is to identify a prioritized list of generation resources that can help the Government and ESCOM meet the increasing demands for power in a manner that balances the objective of least or low cost power to users and diversification of energy sources, and to increase the impact of the Project. The expected outcome of the MCC-supported IRP or substitute strategic investment master plan approved by the Government and agreed to by MCC is to target and secure increased investments in the power system.

(b) Nkula A Refurbishment Activity.

MCC Funding will support the refurbishment of the Nkula A hydropower plant, with the objective to improve the availability of power in Malawi by reducing outages caused by the condition of the assets, and maximizing power output from Nkula A. The refurbishment will improve the reliability of the plant, extend its useful life, and thereby avoid a partial or total failure of the plant.

(c) Transmission Network Upgrade Activity.

This Activity is designed to upgrade the backbone of the transmission network to: (1) improve the quality and reliability of supply in the country; (2) increase the capacity to move power from the south where 98 percent of Malawi's power is generated to the central and northern regions;

(3) reduce technical losses on transmission lines; and (4) provide a secure transmission link between the southern and central regions.

MCC Funding will support the following investments:

(i) 400kV high voltage power line (the transmission “backbone” of the Malawi power system as currently configured) from the Phombeya (near the Nkula B hydropower plant) to Lilongwe, which covers the southern and central regions of Malawi; subject to completion and results of a full feasibility study and environmental and social impact assessments; and

(ii) 132kV line parallel to existing 66kV and 33kV lines from Chitheche to Luwinga and from Luwinga to Bwengu in the northern region.

(d) Transmission and Distribution Upgrade, Expansion, and Rehabilitation Activity.

This Activity includes investments in the southern, central, and northern regions of the Malawi power network. MCC Funding will support the following measures:

(i) Upgrading (up-rating) of existing network connections (33kV, 11kV);

(ii) Extension of existing substations (including 66kV);

(iii) Up-rating of transformers in existing substations;

(iv) Development of new substations;

(v) Installation of improved protection systems;

(vi) Provision of new network extensions; and

(vii) Installation of new controls and communication systems (SCADA).

(e) Public Sector Power Sector Preservation and New Generation Investments.

An essential part of the Infrastructure Development Project is the addition of new generation for the utilization of the new and upgraded transmission and distribution assets. The economic viability of MCC-funded investments is contingent on maintaining at least the current generation capacity of the power system (286 MW) during the Compact Term and then expanding it by at least 64 MW no later than the end of the Compact Term. In addition to this new generation, the Government expects to add significant generation to the system in the coming years, and MCC Funding will support planning and technical assistance through the IRP.

To achieve the preservation and new generation required under the Compact, the Government commits to meet milestones. Under the preservation milestones, the Government commits to taking all steps necessary to maintain current generation capacity in accordance with a plan developed by ESCOM in line with industry best practices, as acceptable to MCC. If the system’s generation capacity falls below 286 MW, unless caused by the temporary shutdown of plants for maintenance or rehabilitation or force majeure, the Government will use commercially reasonable efforts to obtain interim replacement output. Under the new generation milestones, the Government commits to providing a construction schedule for the 64 MW Kapichira II

hydropower plant (“*Kapichira II*”) prior to entry into force and completing construction by the end of the Compact Term. The Government will provide quarterly updates to MCC on the satisfaction of milestones of the Kapichira II construction schedule.

2. Power Sector Reform Project.

The Power Sector Reform Project complements the Infrastructure Development Project by providing support for the Government’s policy reform agenda and building capacity in pivotal sector institutions: ESCOM, the Malawi Energy Regulatory Authority or its successor (“*MERA*”), and the Ministry of Energy (“*MoE*”). The Power Sector Reform Project consists of two activities: the ESCOM Turnaround Activity and the Regulatory Strengthening Activity.

(a) ESCOM Turnaround Activity.

The objectives of this Activity are to restore ESCOM’s financial health and rebuild ESCOM into a financially strong, well-managed company. MCC Funding will support three main areas of the turnaround: finances, corporate governance and operations.

(i) Finances.

MCC Funding will support the provision of technical assistance and equipment to ESCOM, including: (1) development of a detailed financial plan for ESCOM fiscal years 2013-2018; and (2) development of a comprehensive management information system that includes a new automated financial management system and fixed asset mapping.

The Government agrees that a detailed financial plan for ESCOM is at the core of understanding and resolving the current financial challenges of the company. With MCC assistance, the Government will develop a detailed financial plan (the “*Financial Plan*”) designed to restore ESCOM to financial and operational sustainability. The Financial Plan will project the working and investment capital needs of ESCOM for the 2013-2018 fiscal years, as agreed to with MCC. The Financial Plan will be based upon key financial inputs, such as projected accounts receivables and payables, future maintenance and capital investment needs, tariff increase projections, planned operational efficiencies, annual results of operations pursuant to audited financial statements, and other inputs relevant to obtain sound projections of the budget support that the Government will provide, if required, through the Turnaround Facility. The Financial Plan will be updated on a quarterly basis with current ESCOM financial information, and will be approved by ESCOM’s Board of Directors and the Government, as shareholder.

The Government will create and fund the ESCOM Turnaround Facility to support ESCOM’s working capital and investment needs, as identified in the Financial Plan, during the Compact Term. The Government and MCC expect to identify milestones in the Malawi budget process and review progress leading up to the appropriation of funds for the Turnaround Facility. The Government will transfer to the Turnaround Facility the funding for each fiscal year to cover the projected shortfall for ESCOM in working and investment capital under the Financial Plan by the start of each ESCOM fiscal year (July-June), unless otherwise agreed in writing between the Parties. The Government will apportion this funding through the Government budget, beginning FY2013-2014. The ESCOM Board of Directors will control the disbursement of funds from the Turnaround Facility according to the terms set forth in a supplemental agreement among the Parties and ESCOM (the “*Turnaround Facility Agreement*”). The funding and expenditure, if needed, of the Turnaround Facility in accordance with the Turnaround Facility Agreement will

be a condition to Disbursement of continued MCC Funding. The Government has converted a substantial portion of the debt owed to it by ESCOM into equity. Any remaining debt owed to the Government by ESCOM will be cleared from ESCOM's balance sheet no later than entry into force of the Compact. In addition, the Government will ensure that ESCOM restructures its third-party debt obligations in a manner that affords ESCOM a reasonable debt-service burden, consistent with the Financial Plan.

(ii) Corporate Governance.

To improve corporate governance and support the turnaround, MCC Funding may support: (1) recruitment services for key personnel; (2) twinning/mentoring arrangements or management contract support; (3) a performance management system; and (4) strategic planning by the board of directors of ESCOM ("**ESCOM Board**"). MCC funding will provide technical assistance on corporate performance standards, including a study on best practices and benchmarks for corporate governance of electric utilities with regional, continental and international benchmarks and recommendations for ESCOM no later than the end of the second year of the Compact Term (the "**Corporate Governance Benchmarking Study**").

The Government will ensure that ESCOM employs a Chief Executive Officer (CEO) prior to entry into force of this Compact. The individual selected for CEO will have at least ten years of public utility management experience, preferably at the CEO level, and a professional qualification in engineering, business, or finance.

The Government recognizes that good corporate governance of ESCOM is essential for long-term performance of the company and commits to improve ESCOM's corporate governance framework and practices. The Government will ensure that the ESCOM Board adheres to clear benchmarks for good corporate governance, including: (A) compliance with the requirements under Malawi's Companies Act, Public Financial Management Act, Public Audit Act, and the Energy Laws; (B) adherence to Malawi Code II, including duties of care and loyalty to the corporation and restrictions on conflicts of interest and related party transactions; (C) following the Sector Guidelines for Parastatal Organizations (the most recent of the draft or final form); and (D) staggering of ESCOM Board terms.

The Government warrants that ESCOM has restructured its existing ESCOM Board committees to have the following three committees: (i) Finance and Audit Committee; (ii) Technical Committee; and (iii) Appointments and Remuneration Committee. The Government will ensure that future nominations and appointments to the ESCOM Board will be done in accordance with a framework established pursuant to Malawi's Parastatals Reform Programme.

The Government will ensure that ESCOM submits and publishes its annual audited financial statements and annual reports to the relevant authorities, and will publish reports similar to those applicable to listed companies under Malawi's Companies Act, all of which will be posted on ESCOM's website. Quarterly reports will be made available to key stakeholders, including MCA-Malawi and MCC.

MCC Funding will support an annual performance audit of ESCOM operations. Prior to each audit, MCC and the Government will agree to the terms of reference based on standards for companies in Malawi, including Malawi Code II and the Companies Act. The Government will

ensure that ESCOM takes appropriate corrective action to address any material weaknesses or recommendations identified through the audit.

To improve ESCOM's coordination with the Government, the Government will designate and coordinate all interaction with ESCOM through its Department of Statutory Corporations or a replacement or successor Government ministry or agency ("*DSC*"). The Government will ensure that all Government interaction with and shareholder oversight of ESCOM will be coordinated through DSC.

(iii) Operations.

MCC Funding will support change management efforts, including developing an organizational design, conducting performance management reviews, and designing human resources strategies. MCC Funding will support the procurement division by strengthening the internal control environment and developing policies and procedures to implement best practices in procurement. MCC Funding will support other operational assistance, including (1) deployment of a financial turnaround team; (2) development of a non-technical loss reduction study; (3) assistance in rapid billings and collections improvements; (4) strengthening of internal controls; (5) rebuilding of the customer database; (6) pursuit of debt collection; (7) development of a new automated financial management system; (8) assistance with tariff applications to the regulator; and (9) assistance with fixed asset mapping. MCC Funding may also support training in live wire repairs, asset management, occupational health and safety, as well as safety and diagnostic equipment, and critical spare parts.

MCC Funding will also support the development of ESCOM's annual maintenance plan. The Government will ensure that ESCOM budgets and expends the amount set forth in the maintenance plan (based on a percentage of undepreciated asset value) for preventive maintenance of generation, transmission and distribution assets.

The GOM affirms that ESCOM will adhere to the Public Procurement Act of Malawi and the policies and procedures of the Government's Office of the Director of Public Procurement ("*ODPP*"). ESCOM will also take the following steps: (1) strengthen the Internal Procurement Committee as an effective manager and overseer of procurement; (2) develop procurement benchmarks and milestones; (3) restructure its procurement and stores management staff to streamline operations; (4) minimize redundancies and fill skill gaps; (5) conduct public outreach through an information campaign; (6) design and agree on a new procurement organization structure merging procurement and supply; (7) secure guidance from ODPP; (8) develop a formal process to draft annual procurement plans; and (9) review and restructure the stores function and conduct regular stock checks.

(b) Regulatory Strengthening Activity.

The Regulatory Strengthening Activity complements the Infrastructure Development Project and the ESCOM Turnaround Activity by providing support for the Government's policy reform agenda and building capacity in pivotal sector institutions, MERA and MoE. The objectives of the Regulatory Strengthening Activity are to develop a regulatory environment, consistent with best practices in independent power utility regulation, that support investment in generation and grid capacity at an affordable cost, with the potential participation of the private sector.

(i) Tariff Reform.

The Government understands that appropriate tariff levels are critical to ESCOM's financial recovery and the growth of the power sector. MCC funding will support tariff, regulatory, and energy policy support toward this end. MCC Funding will support a cost of service analysis to determine appropriate tariff levels and schedules to achieve full cost recovery, more efficient utilization of electricity, and achievement of social objectives. Based on the results of this analysis, the Government agrees to a phased implementation of full-cost recovery tariffs and schedules according to a timeline to be determined by entry into force of the Compact. Without reducing current tariff levels, the phased implementation will ensure an incremental increase in the scope of tariff levels and schedules, that will begin with a tariff that permits recovery of operating costs, thereafter recovery of operating costs plus capital replacement charges, and by the end of the Compact Term recovery of capital replacement costs, capital replacement charges and capital expansion charges. This full-cost recovery tariff should include recovery of operating expenses, financing costs actually incurred by ESCOM, capital replacement charges and capital expansion charges so that tariffs reflect ESCOM's long-run marginal costs. The Government will also seek to ensure adequate protection of poor and vulnerable groups through a lifeline tariff or other mechanism in a manner which is consistent with average total cost recovery and efficient utilization of electricity.

The Government will adopt the policy, legal and regulatory changes necessary to implement tariff reform, including: (1) rationalizing the five percent inflation fluctuation trigger and the four-year interval for review of base tariffs and tariff adjustment formula, so that tariffs may be adjusted on a basis that supports the viability of licensees; and (2) improving the components and definitions for the tariff adjustment components (collectively, the "***Tariff Indexation Framework***").

(ii) MERA Capacity Building.

MCC Funding will support capacity building at MERA to improve its regulatory oversight activities and operations. This work will include the development and implementation of training and mentoring of MERA staff, and complementary activities designed to develop MERA. MCC Funding will also assist MERA to develop peer relationships with other regulatory bodies or related organizations.

MCC Funding will be used to complete a study to support the Government's commitment to further develop independent and capable governance of MERA. This study will be completed by the end of the second year of the Compact Term. The study will focus on best practices and benchmarks for corporate governance for electricity regulators, including regional, continental and international benchmarks and recommendations for the future governance of MERA (the "***Sector Benchmarking Study***").

The Government will ensure that MERA develops new technical codes for transmission, distribution and metering to account for captive, cogeneration and other forms of generation. MERA will also develop new "use of system" charging mechanisms, implement the design for a bilateral market, and develop codes to implement existing legal provisions on third-party access to the transmission network. MCC Funding will support these activities through technical assistance.

The Government will consider changing the composition of the board of directors of MERA (“**MERA Board**”), to make the MERA Board and its governance procedures consistent with best practices for independent regulatory authorities in the region and internationally. Specifically, the Government will review the continued membership of *ex officio* directors and the appropriateness of cross-representation on power sector boards and potential conflicts of interest that may arise between the regulator and regulated entities through board membership, such as the presence of the Principal Secretary for Energy Affairs and the Director of Energy Affairs on the MERA Board. To the extent that Government *ex officio* members continue on the ESCOM and MERA Boards, the Government affirms its commitment to ensuring that the ESCOM and MERA Boards meet standards applicable to Malawi parastatals with respect to conflicts of interest and independent decision-making, that the *ex officio* directors on the MERA Board will continue to be non-voting members, and that regulatory rulings are transparent.

The Government will ensure that the scope of MERA’s power sector responsibilities is limited to regulation and policy implementation, and not for policy development or the solicitation of new generation.

In recognition of another key indicator of their progress developing a model regulatory institution, the Government and MERA confirm that levies and other charges applicable under the Energy Laws are, and have been, sufficient to cover MERA’s operating expenses. The Government will ensure that MERA will publish an annual report including audited financial statements, as required under the Energy Regulation Act. MCC Funding will be used to support MERA in its development, including development of an annual report.

(iii) Enabling Environment for Public and Private Sector Investment.

MCC Funding will support the Government’s efforts and capacity to implement a suitable market model based on the studies performed in connection with the development of this Compact. MCC Funding will support training and capacity building at MoE as well as its efforts to study and design (1) a restructured model for the power sector (“**Restructuring Plan**”); and (2) the building blocks of a bilateral power trade market. MCC Funding will also assist with stakeholder education and outreach to support consumer organizations, industrial and commercial users, and other key players in advocating for improved service. In addition, MCC will seek to work with Parliament to strengthen its role in oversight of the power sector.

Based on the Restructuring Plan, the Government will create, as necessary, an appropriate institutional structure, either ring-fenced within ESCOM, or a separate legal entity so that the newly created institution’s financial and system operation activities are autonomous from other ESCOM business units or government entities. Also, the Government will provide support to improve the credit worthiness of this potential new institution. The Government will not unbundle ESCOM, except as otherwise provided herein, and shall not make effective the provisions in Section 4 and Parts IV and V of the Electricity Act that limit licensees to one license.

The Government will also clarify the Rural Electrification Act (the “**REA**”) so that entities that pursue rural electrification activities without receiving funding from the Rural Electrification Fund are not subject to the REA’s internal rate of return and megawatt size restrictions. The Government will also revise its National Energy Policy to allow charging of differential tariffs for off-grid electrification.

(c) Power Sector Reform Agenda Semi-Annual Review.

The Government and MCC will jointly supervise, through specific milestones, progress on the implementation of the Government's power sector reform agenda in the following areas: ESCOM finances; ESCOM operations; ESCOM corporate governance; tariff reform; MERA governance; and regulatory enabling environment for public and private sector participation (collectively, the "***Power Sector Reform Agenda***"). The Government and MCC have specified the milestones below, for which new capitalized terms are further defined in Annex III. Prior to entry into force of the Compact, the Parties will identify semi-annual benchmarks for each milestone. The parties will conduct a semi-annual review of progress on the Power Sector Reform Agenda. Corrective action, acceptable to MCC, as needed to ensure satisfactory progress, will be a condition of continued MCC Funding.

(i) ESCOM Finances.

The financial health of ESCOM will be tracked by setting and maintaining the following financial ratios and covenants:

- (1) Cost Recovery Ratio;
- (2) Current Ratio supported by cash flow statements;
- (3) Bad Debt Ratio; and
- (4) ESCOM Billing and Collection Efficiency.

(ii) ESCOM Operations.

Improvements in the operations of ESCOM will be measured by the following areas:

- (1) Quantity of Electricity Metered;
- (2) Quantity of Electricity Billed;
- (3) Average Cost of Electricity Billed;
- (4) Reduction in Losses;
- (5) Voltage Quality;
- (6) Maintenance Expenditures;
- (7) Reduced Outages; and
- (8) Annual Procurement Audit.

(iii) ESCOM Corporate Governance.

ESCOM corporate governance will be measured by ESCOM's performance on:

- (1) Corporate Governance Benchmarking Study;

- (2) Annual performance audit reports; and
- (3) Public annual report and audited financial statements.

(iv) Tariff Reform.

Progress on tariff reform will be phased and measured by:

- (1) Cost of service analysis;
- (2) Tariff levels and schedules;
- (3) Tariff Indexation Framework; and
- (4) Tariff design efficiency, including, a lifeline tariff.

(v) MERA Governance.

Improvements in MERA's governance and capacity will be tracked by:

- (1) Sector Benchmarking Study;
- (2) Peer review; and
- (3) Public annual report and audited financial statements.

(vi) Improved Market Structure for Private Investment.

Key milestones in the establishment of an enabling environment will be:

- (1) New power market pursuant to the Restructuring Plan; and
- (2) Legal framework for strengthened electricity market.

3. Environment and Natural Resource Management (“ENRM”) Project.

The objective of the ENRM Project is to help the Government and other relevant stakeholders address the growing problems of aquatic weed infestation and excessive sedimentation in the Shire River which cause costly disruptions to downstream power plant operations. MCC Funding will support the following measures:

(a) Mitigation of the impact of the weeds and sedimentation through mechanical and biological measures (in accordance with international best practices), including the purchase and use of dredgers, trash rakes, diversion booms, conveyers, disposal trucks and weed-harvesting equipment at existing hydropower plants and the Liwonde Barrage as well as identification of environmentally-appropriate disposals sites, and expanded use of upstream biological control measures (“*Weed and Sediment Management Activity*”).

(b) Development and implementation of an integrated set of activities, acceptable to MCC, aimed at improving environmental and natural resources management (ENRM) in the Shire River Basin. These activities should be based on analysis of the environmental, social

(including gender) and economic factors that cause or contribute to weed infestation and sedimentation in the Shire River, should target the drivers of land-use degradation in the Shire River Basin, and should be implemented in collaboration with other donors and stakeholders.

The Parties expect that these ENRM activities will decrease outages and increase electricity output at the Nkula, Tedzani, and Kapichira hydropower plants that are currently affected by invasive weeds and excessive sedimentation. The ENRM Activity is also expected to improve land use and watershed management practices in the Shire River basin to help resolve underlying environmental and social issues that affect hydropower, communities, and other users dependent on ecosystem services (“*ENRM Activity*”).

(c) To complement the ENRM Activity, a Social and Gender Enhancement Fund (“*SGEF*”) will support improved land use management and natural resource-based economic development activities carried out by women and vulnerable groups in the Shire River Basin. Because women are often primary decision makers in natural resource-based economic activities that in turn impact land use practices, the SGEF will support activities that directly or indirectly improve control and sustainable management of resources by women and vulnerable groups, which in turn will reduce sedimentation and natural resources degradation, increase economic opportunities, and contribute to the ENRM objective of decreasing outages at downstream hydropower plants (“*Social and Gender Enhancement Activity*”).

4. Environmental and Social Safeguards.

The Projects will be implemented in compliance with the MCC Environmental Guidelines, the International Finance Corporation (“*IFC*”) Performance Standards on Environmental and Social Sustainability (“*IFC Performance Standards*”), and the MCC Gender Policy in a manner acceptable to MCC. The Government also will ensure that the Projects comply with all national environmental laws and regulations, licenses and permits, and applicable international conventions and treaties, except to the extent such compliance would be inconsistent with this Compact. Specifically, the Government will: (a) cooperate with or complete, as the case may be, any ongoing environmental assessments, or if necessary undertake and complete any additional environmental assessments, social assessments, environmental management plans, environmental and social audits, resettlement policy frameworks, and resettlement action plans required under the laws of Malawi, the MCC Environmental Guidelines, the IFC Performance Standards, this Compact, the Program Implementation Agreement, or any Supplemental Agreement, or as otherwise required by MCC, each in form and substance satisfactory to MCC; (b) ensure that Project-specific environmental and social management plans are developed and all relevant measures contained in such plans are integrated into project design, the applicable procurement documents and associated finalized contracts, in each case, in form and substance satisfactory to MCC; and (c) implement to MCC’s satisfaction appropriate environmental and social mitigation measures identified in such assessments or plans. Unless MCC agrees otherwise in writing, the Government will fund all necessary costs of environmental and social mitigation measures (including, without limitation, costs of resettlement) not specifically provided for or that exceed the MCC Funding specifically allocated for such costs in the Detailed Financial Plan for the Projects.

To maximize the positive social impacts of the Projects, address cross-cutting social and gender issues such as human trafficking, child and forced labor, and HIV/AIDS, and ensure compliance with the MCC Gender Policy and the MCC Gender Integration Guidelines, and to the extent that

such does not conflict with MCC's Gender Policy, the Malawi National Gender Policy as ultimately adopted by the Government, the Government will: (i) develop a comprehensive social and gender integration plan which, at a minimum, performs a gender, institutional and policy review relevant to the Projects, identifies approaches for regular, meaningful and inclusive consultations with women and other vulnerable/underrepresented groups, consolidates the findings and recommendations of Project-specific social and gender analyses and conducts additional gender analysis as needed, and sets forth strategies for incorporating findings of the social and gender analyses into final Project designs and additional targeted activities as appropriate ("***Social and Gender Integration Plan***"); (ii) ensure, through monitoring and coordination during implementation, that final Project designs, construction tender documents and implementation plans are consistent with and incorporate the outcomes of the social and gender analyses and Social and Gender Integration Plan; and (iii) on an annual basis, review and update the Social and Gender Integration Plan as needed to reflect lessons learned and project-specific analysis.

During the development of the Compact, MCC and the Government assessed and identified the potential environmental and social impacts and risks of the Projects. The Projects are classified as follows in accordance with MCC's Environmental Guidelines and the IFC Performance Standards: (1) the Infrastructure Development Activity is classified as a Category B project given that the majority of the risks and impacts are site-specific, relatively minor and can be readily mitigated through site-specific environmental and social management plans; (2) the Power Sector Reform Project is classified as a Category C project given that it is unlikely to have adverse environmental and social impacts; and (3) the ENRM Project is classified as a Category D project given that the Project will, among other activities, be used to provide assistance to selected grant recipients

Several measures have been taken to mitigate the risks associated with these Projects. Environmental and Social Impact Assessments ("***ESIAs***") have been developed for the Infrastructure Development Project, and additional environmental and social (including gender) analysis and mitigation planning will be carried out for certain activities of the Infrastructure Development Project and the ENRM Project. MCC will require the development of a Hazardous Waste Management Plan that will identify the appropriate storage and disposal, possibly outside of Malawi, of oil-contaminated soils, PCB-contaminated oils, soils and equipment, and other hazardous waste associated with implementation of the Infrastructure Development Project. MCC Funding will be used to design and implement a hazardous waste management plan under the Infrastructure Development Project. MCC will also require, and MCC Funding will support, measures to ensure appropriate disposal of weeds and sediment extracted from dredging and weed harvesting operations at the hydropower plants. The Government has identified potential sites for the disposal of weeds and sediment associated with implementation of the ENRM Project and will require appropriate development and management of such sites.

To address resettlement risks, a Resettlement Policy Framework has been prepared to specify how resettlement planning and implementation will proceed in connection with the Compact Activities. This resettlement framework will attempt to minimize loss of land and immovable assets, and avoid physical displacement of residential and other structures. In the event a Project triggers involuntary resettlement, MCC Funding will support the development of a resettlement action plan by MCA-Malawi in consultation with relevant Government entities, and such resettlement action plan will be submitted for approval to MCC.

The Compact will fund additional analysis of social and gender-related implications of the Projects. This analysis will build upon preliminary work conducted during Compact design to ensure that the Projects are implemented so as to address and integrate the needs of vulnerable groups, in adherence with MCC's Gender Policy.

5. Donor Coordination.

MCC and the MCA-Malawi Core Team have sought development partners with complementary expertise on energy issues and whose further involvement could help ensure sustainability of the Compact. During Compact development, MCC's review of feasible investments identified approximately \$200 million more in beneficial projects than currently feasible under the Compact. Given MCC's inability to finance these otherwise important investments, MCC has discussed with the World Bank and the African Development Bank – the other key donors supporting the power sector in Malawi – the possibility of partnering to support a comprehensive power sector reform program. This reform program could also include sector institutional strengthening activities such as capacity building and technical assistance for the MoE's Department of Energy.

MCC has also been in discussions with the IFC regarding creating an appropriate enabling environment for private sector and IFC investment. IFC recently funded a study that identified barriers to private sector investment in energy efficiency and renewable energy opportunities and scoped potential IFC investments. IFC's report identifies a critical need for technical assistance for the Government to establish an enabling environment in order to facilitate these energy efficiency and renewable energy opportunities. As of November 2010, MCC is considering incorporating the IFC's recommendations in the policy, regulatory and legal framework strengthening activity currently supported under the Compact.

6. USAID.

While USAID does not currently play an active role in implementing this Compact, MCC is seeking USAID involvement to provide technical assistance for the power sector. MCC is investigating whether USAID's Africa Infrastructure Program could potentially provide technical assistance to the Government to assist them with structuring agreements with independent power producers and capacity building for MERA. In addition, MCC will coordinate its outreach initiatives with the Malawi parliament, media and civil society under the Regulatory Strengthening Activity with USAID's democracy and governance projects. The MCC will also coordinate its ENRM activities in the Shire River Basin with USAID's environmental projects, especially in the Balaka and Machinga Districts which are the principal areas of geographical overlap between MCC's and USAID's respective interventions.

7. Sustainability.

The Compact includes several measures to ensure sustainability of MCC's investment. As designed, both the Power Sector Reform Project and the ENRM Project are targeted to ensure sustainability of the Infrastructure Development Project. In addition, the Infrastructure Development Project includes certain sustainability safeguards such as requiring a certain percentage of asset value to be set aside for preventative maintenance.

Substantial progress on the Power Sector Reform Project is essential to the magnitude and sustainability of the Compact investments in physical infrastructure, and to the sustained

economic growth of Malawi. The Power Sector Reform Project also addresses key structural issues in the power sector including tariff reform, creating an environment capable of attracting private sector investment, and ensuring the creation of a strong and independent energy sector regulator. These reform activities are structured both as covenants in the Compact and conditions to entry into force of the Compact, or will become conditions to disbursement in the Program Implementation Agreement. Due to the weed and sedimentation problems plaguing Malawi's almost entirely hydropower-based generation facilities, the ENRM Project will also provide necessary steps to ensure sustainability of the Compact.

In addition to the sustainability benefits inherent in the project design of the Power Sector Reform Project and the ENRMAP, the sustainability of the Infrastructure Development Project will also heavily depend on a robust maintenance regime for generation, transmission and distribution assets.

C. IMPLEMENTATION FRAMEWORK

1. Overview.

The implementation framework and the plan for ensuring adequate governance, oversight, management, monitoring and evaluation, and fiscal accountability for the use of MCC Funding are summarized below. MCC and the Government will enter into the Program Implementation Agreement, and any other agreements in furtherance of this Compact, all of which, together with this Compact, set out certain rights, responsibilities, duties and other terms relating to the implementation of the Program.

2. MCC.

MCC will take all appropriate actions to carry out its responsibilities in connection with this Compact and the Program Implementation Agreement, including the exercise of its approval rights in connection with the implementation of the Program.

3. MCA-Malawi.

In accordance with Section 3.2(b) of this Compact, MCA-Malawi will act on the Government's behalf to implement the Program and to exercise and perform the Government's rights and responsibilities with respect to the oversight, management, monitoring and evaluation, and implementation of the Program, including, without limitation, managing the implementation of Projects and their Activities, allocating resources, and managing procurements. The Government will ensure that MCA-Malawi takes all appropriate actions to implement the Program, including the exercise and performance of the rights and responsibilities designated to it by the Government pursuant to this Compact and the Program Implementation Agreement. Without limiting the foregoing, the Government will also ensure that MCA-Malawi has full decision-making autonomy, including, *inter alia*, the ability, without consultation with, or the consent or approval of, any other party, to: (1) enter into contracts in its own name; (2) sue and be sued; (3) establish Permitted Accounts in a financial institution in the name of MCA-Malawi and hold MCC Funding in such accounts; (4) expend MCC Funding; (5) engage a fiscal agent who will act on behalf of MCA-Malawi on terms acceptable to MCC; (6) engage one or more procurement agents who will act on behalf of MCA-Malawi, on terms acceptable to MCC, to manage the acquisition of the goods, works, and services required by MCA-Malawi to implement this Compact; and (7) competitively engage one or more auditors to conduct audits of

its accounts. The Government will take the necessary actions to establish and maintain MCA-Malawi, in accordance with the terms hereof including the applicable conditions precedent to the Disbursement of Compact Implementation Funding set forth in Annex IV to this Compact.

MCA-Malawi will be administered and managed by a Board of Trustees and a Management Unit. In addition, MCA-Malawi will have a Stakeholders' Committee to continue the consultative process during implementation of the Program. MCA-Malawi will be incorporated through a trust deed under Malawi's Trustees Incorporation Act, which trust deed will be included in the Program Implementation Agreement (hereinafter referred to as the "***MCA-Malawi Trust Deed***"), which will, collectively, set forth the responsibilities of the Board of Trustees, the Stakeholders' Committee and the Management Unit. The MCA-Malawi Trust Deed will be developed and adopted in accordance with MCC's Guidelines for Accountable Entities and Implementation Structures, published on the MCC Website (the "***Governance Guidelines***"), and will be in form and substance satisfactory to MCC. MCA-Malawi on behalf of the Government will administer the MCC Funding.

(a) Board of Trustees.

(i) Composition. MCA-Malawi will be governed by a board of trustees (the "***Board of Trustees***"), which will consist of voting members representing the Government, private sector, and civil society groups, as well as a non-voting representative of MCC as an observer. The appointment of the trustees will be articulated in the MCA-Malawi Trust Deed and will adhere to MCC's Governance Guidelines. Subject to further discussion, members representing the Government will include the Secretary of the Treasury, the Principal Secretary for Natural Resources Energy and Environment, and the Principal Secretary for Development Planning and Cooperation. Non-government members will be nominated by key private sector and civil society groups rather than by the Government, and may include but shall not be limited to the Council for Non-Governmental Organizations in Malawi (CONGOMA), the Economics Associations of Malawi (ECAMA), and the Malawi Confederated Chambers of Commerce and Industry (MCCCI). There will be a minimum of seven trustees, and a maximum of nine trustees. The composition of the Board of Trustees will comply with the Governance Guidelines, to MCC's satisfaction.

(ii) Roles and Responsibilities. The Board of Trustees will be responsible for overseeing the implementation of the Program and will have final decision-making authority and responsibility over the implementation of the Program. The Board of Trustees will meet regularly; the frequency of meetings will be set forth in the MCA-Malawi Trust Deed and will be in accordance with the Governance Guidelines. The specific roles of the voting members and non-voting observers will be set forth in the MCA-Malawi Trust Deed. The chairperson of the Board of Trustees will be selected by a majority vote of the Trustees. On at least an annual basis or as otherwise required by the Government, the Board of Trustees will report to the Government on the status and progress of the Compact regarding implementation, financial matters, procurements, and other matters identified by the Government.

(b) Stakeholders' Committee.

(i) Composition. A Stakeholders' Committee will be selected according to a process in accordance with the MCC's Governance Guidelines and the MCA-Malawi Trust Deed, as approved by MCC. Without limiting the foregoing, as required in MCC's Governance

Guidelines, the Stakeholders' Committee will be composed of *inter alia*, representatives from non-governmental organizations, civil society, private sector, and local and regional government Program beneficiaries.

(ii) Roles and Responsibilities. Consistent with the Governance Guidelines, the Stakeholders' Committee will be responsible for continuing the consultative process throughout implementation of the Program. While the Stakeholders' Committee will not have any decision-making authority, it will be responsible for, *inter alia*, reviewing, at the request of the Board of Trustees or the Management Unit, certain reports, agreements, and documents related to the implementation of the Program in order to provide advice and input to MCA-Malawi regarding the implementation of the Program.

(c) Management Unit.

(i) Composition. The management unit, which will be led by a competitively selected Chief Executive Officer, will be composed of competitively selected staff with expertise in the key components of the Program, including, without limitation, a Deputy Chief Executive Officer, Legal Advisor, Human Resources Officer, Power Director, Communications and Outreach Director, Finance and Administration Director, ESA Director, Deputy Director for Social and Gender Issues, Procurement Director, Policy Specialist, M&E and Economics Director, and MIS Specialist (the "**Management Unit**"). The Management Unit will also include such other personnel as provided for in the MCA-Malawi Trust Deed. The directors will be supported by appropriate additional staff to enable the Management Unit to execute its roles and responsibilities.

(ii) Roles and Responsibilities. The Management Unit will be based in Lilongwe, Malawi, and will be responsible for day-to-day implementation of the Compact, with oversight from the Board of Trustees. The Management Unit will serve as the principal link between MCC and the Government, and will be accountable for the successful implementation of the Program, the Project, and each Activity. As a recipient of MCC Funding, MCA-Malawi will be subject to MCC audit requirements.

4. Implementation Arrangements.

Subject to the terms and conditions of this Compact and any related agreements entered into in connection with this Compact, MCC and the Government have identified certain institutions, including ESCOM, MERA and MoE, that may receive technical assistance or other support under this Compact, and that, together with MCA-Malawi, will have key roles in the implementation of the Project and the Activities (each, a "**Program Partner**"). The Government will ensure that the roles and responsibilities of each Project Partner will be clearly articulated in an agreement between MCA-Malawi and the Project Partner, which agreement must be in form and substance satisfactory to MCC (each a "**Program Cooperation Agreement**").

The Government will ensure that ESCOM, as a Program Partner, will do the following in support of the Program: (a) provide access to its facilities and cooperate with MCA-Malawi, and its consultants (including the CE as defined below); (b) dedicate key staff to the Program, including engineers, environmental, social and gender specialists, and monitoring and evaluation personnel; (c) bear any transportation costs and per diems and incidental expenses for any of its personnel who travel in connection with the Project; and (d) provide administrative and technical support and use of appropriate office space and facilities.

MCA-Malawi will contract a consulting engineer (“*CE*”) to design and supervise the implementation of the infrastructure portions of the Infrastructure Development Project and will assist MCA-Malawi with technical evaluations and contract negotiations. The Program Cooperation Agreement between MCA-Malawi and ESCOM will set forth the roles and responsibilities of each entity and any coordinating mechanisms to ensure that the CE is able to successfully carry out its mandate. The CE will also provide technical assistance to ESCOM with respect to project management.

5. Fiscal Agent.

Unless MCC otherwise agrees in writing, the Government, directly or through MCA-Malawi, will engage one or more fiscal agents (each a “*Fiscal Agent*”), who will be responsible for assisting the Government with fiscal management and ensuring appropriate fiscal accountability of MCC Funding. Duties of the Fiscal Agent will be set forth in the Program Implementation Agreement and in such agreement as the Government, directly or indirectly through MCA-Malawi, enters into with each Fiscal Agent, which agreement shall be in form and substance satisfactory to MCC.

6. Procurement Agent.

Unless MCC otherwise agrees in writing, the Government, directly or through MCA-Malawi, will engage one or more procurement agents (each as “*Procurement Agent*”) to conduct and certify specified procurement activities in furtherance of the Compact. The roles and responsibilities of the Procurement Agent will be clearly articulated in the Program Implementation Agreement and in such agreement as the Government, directly or indirectly through MCA-Malawi, enters into with each Procurement Agent, which agreement shall be in form and substance satisfactory to MCC. Each Procurement Agent will adhere to the standards set forth in the MCC Program Procurement Guidelines and ensure that procurements are consistent with the procurement plan adopted by MCA-Malawi pursuant to the Program Implementation Agreement, unless MCC otherwise agrees in writing.

ANNEX II
MULTI-YEAR FINANCIAL PLAN SUMMARY

This Annex II summarizes the Multi-Year Financial Plan for the Program.

1. General.

A multi-year financial plan summary (“*Multi-Year Financial Plan Summary*”) is attached hereto as Exhibit A. By such time as specified in the PIA, the Government will adopt, subject to MCC approval, a multi-year financial plan that includes, in addition to the multi-year summary of estimated MCC Funding and the Government’s contribution of funds and resources, the annual and quarterly funding requirements for the Program (including administrative costs) and for the Projects, projected both on a commitment and cash requirement basis.

EXHIBIT A
MULTI-YEAR FINANCIAL PLAN SUMMARY

COMPONENT	CIF	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1. INFRASTRUCTURE DEVELOPMENT PROJECT							
(a) Nkula A Refurbishment Activity	23,187	-	6,318,154	11,061,507	11,061,507	3,156,335	31,620,690
(b) Transmission Network Upgrade Activity	1,735,723	8,013,346	47,013,724	45,513,666	35,326,017	24,264,725	161,867,202
(c) T&D Upgrade, Expansion, and Rehabilitation Activity	693,090	2,773,990	17,266,651	18,662,454	14,532,557	9,698,366	63,627,108
SUBTOTAL	2,452,000	10,787,336	70,598,529	75,237,627	60,920,081	37,119,426	257,115,000
2. POWER SECTOR REFORM PROJECT							
(a) ESCOM Turnaround Activity	2,552,000	3,337,026	3,365,244	3,365,244	3,365,244	3,365,244	19,350,000
(b) Regulatory Strengthening Activity	800,000	1,132,574	1,104,356	1,104,356	1,104,356	1,104,356	6,350,000
SUBTOTAL	3,352,000	4,469,600	4,469,600	4,469,600	4,469,600	4,469,600	25,700,000
3. ENVIRONMENT AND NATURAL RESOURCE MANAGEMENT PROJECT							
(a) Weed and Sediment Management Activity	33,000	109,828	3,416,026	5,559,270	4,442,914	2,323,962	15,885,000
(b) Environment and Natural Resources Management Activity	708,000	2,115,022	2,544,244	1,544,244	1,544,244	1,544,244	10,000,000
(c) Social and Gender Enhancement Activity	203,000	359,400	359,400	359,400	359,400	359,400	2,000,000
SUBTOTAL	944,000	2,584,250	6,319,670	7,462,914	6,346,558	4,227,606	27,885,000
4. MONITORING AND EVALUATION							
(a) Monitoring and Evaluation	387,000	2,109,129	779,401	1,496,871	352,907	1,874,691	7,000,000
SUBTOTAL	387,000	2,109,129	779,401	1,496,871	352,907	1,874,691	7,000,000
5. PROGRAM ADMINISTRATION							
(a) MCA-Malawi Administration	1,885,000	3,658,600	3,653,600	3,950,600	3,991,600	4,127,600	21,267,000
(b) Financial Management and Procurement Controls	-	2,060,000	2,122,000	2,185,000	2,251,000	2,319,000	10,937,000
(c) Financial Audits	100,000	130,000	135,000	139,000	144,000	148,000	796,000
SUBTOTAL	1,985,000	5,848,600	5,910,600	6,274,600	6,386,600	6,594,600	33,000,000
TOTAL COMPACT BUDGET	9,120,000	25,798,915	88,077,800	94,941,612	78,475,746	54,285,923	350,700,000

ANNEX III

DESCRIPTION OF MONITORING AND EVALUATION PLAN

This Annex III (this “*M&E Annex*”) generally describes the components of the Monitoring and Evaluation Plan (“*M&E Plan*”) for the Program. The actual content and form of the M&E Plan will be agreed to by MCC and the Government in accordance with MCC’s Policy for Monitoring and Evaluation of Compacts and Threshold Programs as posted from time to time on the MCC Website (the “*MCC Policy for Monitoring and Evaluation of Compacts and Threshold Programs*”). The M&E Plan may be modified as outlined in MCC’s Policy for Monitoring and Evaluation of Compacts and Threshold Programs with MCC approval without requiring an amendment to this Annex III.

1. Overview.

MCC and the Government will formulate and agree to, and the Government will implement or cause to be implemented, an M&E Plan that specifies: (a) how progress toward the Compact Goal, Program Objective and Project Objective will be monitored (“*Monitoring Component*”); (b) a process and timeline for the monitoring of planned, ongoing, or completed Activities to determine their efficiency and effectiveness; and (c) a methodology for assessment and rigorous evaluation of the outcomes and impact of the Program (“*Evaluation Component*”). Information regarding the Program’s performance, including the M&E Plan, and any amendments or modifications thereto, as well as progress and other reports, will be made publicly available on the website of MCC, MCA-Malawi and elsewhere.

2. Program Logic.

The M&E Plan will be built on a logic model which illustrates how the Program, Projects and Activities contribute to the Compact Goal, the Program Objective and the Project Objectives.

The Compact Goal is to reduce poverty through economic growth. The Program is designed to reduce poverty in Malawi by addressing the constraints of the power sector to economic growth. The Program Objective is to: (a) reduce the cost of doing business; (b) expand access to electricity for the Malawian people and businesses; and (c) increase value-added production in Malawi.

The outcomes of the Projects, otherwise referred to in the Compact as the Project Objectives, are to improve the availability, reliability, and quality of the power supply by increasing the throughput capacity and stability of the national electricity grid, increase efficiency of hydropower generation, create an enabling environment for future expansion of the power sector by strengthening sector institutions and enhancing regulation and governance of the sector, and mitigate the growing problems of aquatic weed infestation and excessive sedimentation in the Shire River Basin to reduce the costly disruptions to Malawi’s hydropower generation. These results are expected to contribute to Malawi’s own poverty-reduction and economic growth goals as defined in the Malawi Growth and Development Strategy (“*MGDS*”).

3. Monitoring Component.

To monitor progress toward the achievement of the impact and outcomes of the Compact, the Monitoring Component of the M&E Plan will identify: (1) the Indicators (as defined below), (2) the definitions of the Indicators, (3) the sources and methods for data collection, (4) the frequency for data collection, (5) the party or parties responsible for collecting and analyzing relevant data, and (6) the timeline for reporting on each Indicator to MCC.

Further, the Monitoring Component will track changes in the selected Indicators for measuring progress towards the achievement of the Program Objective and Project Objectives, Outcomes, and Outputs during the Compact Term. MCC also intends to continue monitoring and evaluating the long-term impacts of the Compact even after Compact expiration. The M&E Plan will establish baselines which measure the situation prior to a development intervention, against which progress can be assessed or comparisons made (each a, “*Baseline*”). The Government will collect Baselines on the selected Indicators or verify already collected Baselines where applicable and as set forth in the M&E Plan. An indicator’s Baseline should be established prior to the start of the corresponding Activity.

(a) Indicators.

The M&E Plan will measure the results of the Program using quantitative, objective and reliable data (“*Indicators*”). Each Indicator will have benchmarks that specify the expected value and the expected time by which that result will be achieved (“*Target*”). All Indicators will be disaggregated by gender, income level and age, and beneficiary types to the extent practicable. Subject to prior written approval from MCC, the Government or MCA-Malawi may add Indicators or refine the definitions and Targets of existing Indicators.

(i) Compact Indicators.

(1) Goal. The M&E Plan will contain the following Indicators related to the Compact Goal. Although the Program contributes to these goals as specified in the MGDS, satisfaction of these goals is not intended to be solely attributable to the Program:

- (A) Annual real GDP growth rate;
- (B) Annual real per capita income; and
- (C) Absolute poverty rate¹ nationwide.

(2) Other Indicators. The M&E Plan will contain the Indicators listed in the following tables.

MCA-Malawi will update Baselines for key Indicators after new data becomes available, including the Malawi Integrated Household Survey III, after a new billing system is installed at

¹ Poverty rates cited above are based on MCA-Malawi Core Team projections using poverty line of US\$1.00 a day. Annex I defines poverty line as US\$1.25 a day.

ESCOM, and after a Cost of Service analysis and Integrated Resource Plan are completed. Indicators on outages and load shedding will be refined prior to completion of the M&E Plan during the first year of the Compact. Financial Targets and performance will be reviewed and updated regularly, as defined in Annex I of the Compact.

Table 1: Compact-Wide Results.

The following are Indicators and Targets for the monitoring of the Program Objective as further described in paragraph 2 of Part A of Annex I. The Projects are expected to contribute to the achievement of these Indicators and Targets, but are not solely responsible for the results.

Table 1: Compact-wide Results					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Objective-Level Outcome Indicators					
Reduced cost of Doing Business in Malawi	Business sales losses due to power interruptions and quality, disaggregated by firm size ² and region	Average losses (including production and time costs) due to electricity outages as percentage of total sales value ³	%	12.1 (2009)	Reduction over baseline
	Back-up diesel generation for firms ⁴	Average annual kWh of diesel generation consumed by registered firms with a diesel generator	%	6.55 (2009)	Reduction over baseline
	Hidden costs of electricity	Total value of underpricing, technical and non-technical losses, and bills not collected as percentage of revenue of the utility	%	264 (2009) ⁵	TBD
Improved Electricity Access and Availability	Number of residential customers connected to the grid, disaggregated by region	Number of residential customers in Malawi connected to the ESCOM grid – Southern region	Customer	67,316 (2010)	Not Targeted ⁶
		Number of residential customers in Malawi connected to the ESCOM grid – Central region	Customer	59,375 (2010)	Not Targeted
		Number of residential customers in Malawi connected to the ESCOM grid – Northern region	Customer	22,612 (2010)	Not Targeted
	Number of commercial customers connected to the grid, disaggregated by region	Number of commercial customers in Malawi connected to the ESCOM grid – Southern region	Customer	11,751 (2010)	Not Targeted
		Number of commercial customers in Malawi connected to the ESCOM grid – Central region	Customer	9,189 (2010)	Not Targeted

² Indicator is sourced from World Bank Enterprise Survey, 2009. Baseline data reflects manufacturing sector data only. MCA-Malawi will explore developing a tool to capture information for smaller, informal firms.

³ To be refined in survey questionnaire. Indicator is used only for monitoring purposes.

⁴ Indicator sourced from World Bank Enterprise Survey, 2009. Indicator is used only for monitoring purposes.

⁵ Indicator is sourced from World Bank Africa Infrastructure Country Diagnostic report, 2010

⁶ Indicator will be used for monitoring purposes. 2013 ERR projections of 3,139 additional customers by end of Compact.

Table 1: Compact-wide Results					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
		Number of commercial customers in Malawi connected to the ESCOM grid – Northern region	Customer	4,158 (2010)	Not Targeted
	Number of industrial customers connected to the grid, disaggregated by region	Number of industrial customers in Malawi connected to the ESCOM grid – Southern region [Power LV + Power MV]	Customer	4,204 (2010)	Not Targeted 1
		Number of industrial customers in Malawi connected to the ESCOM grid – Central region [Power LV + Power MV]	Customer	2,510 (2010)	Not Targeted
		Number of industrial customers in Malawi connected to the ESCOM grid – Northern region [Power LV + Power MV]	Customer	812 (2010)	Not Targeted
	Electric Power Consumption per Capita	(Total kWh billed in all regions) / Total population	kWh per capita	103 (2010)	128
Expansion of Sector to Better Meet Demand for Power	Investment in energy sector, disaggregated by private and public sectors, and generation and other assets ⁷	Total US\$ million committed by outside parties by financial close	US\$ million	0 (2013)	TBD
		MW of investment	MW	0 (2013)	TBD
	Total Electricity Generated	Total System Generation produced in a year	GWh	1925 (2014)	2725
	Total Electricity Consumed	Annual electricity billed (MWh) to residential customers	MWh	619,000 (2014)	890,000
		Annual electricity billed (MWh) to commercial customers	MWh	274,000 (2014)	394,000
		Annual electricity billed (MWh) to industrial customers	MWh	628,000 (2014)	903,000

Table 2: Infrastructure Development Project.

The following are Indicators and Targets for the monitoring of the Infrastructure Development Project as further described in paragraph 1 of Part B of [Annex I](#).

Table 2: Infrastructure Development Project					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Outcome Level Indicators					
Reduction in Losses	Total System Losses (Technical and Non-Technical)	[(Total kWh generated - Total kWh billed) / Total kWh generated during same billing period]	%	21.0 (2010)	18.5

⁷ Data and targets will be sourced from Malawi's Electricity Investment Plan and/or Integrated Resource Plan.

Table 2: Infrastructure Development Project

Result	Indicator	Definition	Unit	Baseline	Year 5 Target
	Transmission System Technical Losses	[(Total kWh received by transmission from generation- Total kWh sent from transmission to distribution) / Total kWh received by transmission from generation]	%	10 (2010)	8.5
	Distribution System Technical & Non-Technical Losses	[(Total kWh received from transmission to Distribution-Total kWh billed) / Total kWh received from transmission to distribution]	%	11 (2010)	10
Reduction in Forced or unplanned Outages	Frequency of Interruptions	[No. of interruptions > 3 mins	Customer Interruptions/quarter	NA	Reduction over baseline
	Average Duration of interruptions	Average duration of forced outages in a quarter	Hours	NA	Reduction over baseline
	Total System Load Shed	Total MWh of load shed in a year	MWh	28,500 (2012)	0
Improved quality of power at primary substations ⁸	Voltage Quality, disaggregated by transmission and distribution	Percentage of time within (±10% transmission and +-6% distribution) voltage range South	%	83 (2010)	90
		Percentage of time within (±10% transmission and ±6% distribution) voltage range Centre	%	83 (2010)	90
		Percentage of time within (±10% transmission and +-6% distribution) voltage range North	%	83 (2010)	90
Nkula A Activity					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Output Level Indicators					
Nkula A refurbished and operational	Total MW at Nkula A hydroelectric plant	Total capacity (MW) at Nkula A	MW	24 (2013)	27
Transmission Network Upgrade Activity					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Output Level Indicators					
Transmission Lines Upgraded, Rehabilitated and Extended	New 132-kV lines	km of new 132-kV lines built by Activity	km	0 (2013)	133
	New 66-kV lines built	km of new 66-kV lines built by Activity	km	0 (2013)	103
	New 400-kV lines built	km of new 400-kV lines built by Activity	km	0 (2013)	173

⁸ Substations will be identified in the full M&E plan.

Table 2: Infrastructure Development Project					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
T&D Upgrade, Expansion and Rehabilitation Activity					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Output Level Indicators					
Total New Transmission Transformer Capacity	Transmission substation capacity	Sum of transmission transformer capacity added by Compact	MVA	0 (2013) ⁹	670 additional through MCC Activity
Increased Network Control and Improved Data Acquisition	SCADA Availability - Transmission	Percentage of master station availability	%	TBD	95 – 100
	SCADA Coverage Transmission	Percent of Transmission Substations with SCADA	%	47 (2013)	85
Distribution Network Upgraded, Extended and / or Operational	Kms of New Distribution lines upgraded or built	km of new 33-kV lines upgraded or built by Activity	km	0 (2013)	37
	Kms of New Distribution Cables	km of new 11-kV cables built by Activity	km	0 (2013)	29
	Distribution substation capacity	Sum of distribution transformer capacity added by Compact	MVA	0 (2013) ¹⁰	74 additional through Activity

Table 3: Power Sector Reform Project.

The following are Indicators and Targets for the monitoring of the Power Sector Reform Project as further described in paragraph 2 of Part B of Annex I. Key Targets and Baselines for these Indicators will be defined prior to completion of the M&E Plan. Targets on financial Indicators will be reviewed semi-annually as defined in paragraph 2(c) of Part B of Annex I, and updated on a yearly basis.

Table 3: Power Sector Reform Project					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Outcome Level Indicators					
Improved Financial Sustainability / Solvency of	Cost Recovery Ratio	Total Actual revenue / Projected operating expenses ¹²	%	TBD	Greater than 100%

⁹ Total MVA available at baseline is 991.50.

¹⁰ Total distribution substation capacity at baseline is 868 MVA.

¹² Total revenue based on energy, demand and fixed charges revenue. Operating expenses include cost of generation, transmission and distribution operations, corporate expenses, and financing costs to be incurred.

Table 3: Power Sector Reform Project					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
ESCOM ¹¹		Total Actual Revenue / Projected operating expenses plus capital replacement costs ¹³	%	TBD	Greater than 100%
		Total Actual Revenue / Projected operating expenses plus capital replacement plus capital expansion costs ¹⁴	%	TBD	100%
	Debt Equity Ratio	Total Debt / Total Equity	Ratio	TBD	TBD ¹⁵
	Acid or Quick Test	Current Assets / Current Liabilities, excluding receivables and stocks	Ratio	TBD	TBD
	Current Ratio	Current Assets / Current Liabilities	Ratio	TBD	TBD
Improved Internal and External Governance of ESCOM and the Power Sector	Quality of ESCOM Corporate Governance	Progress against milestones set as a result of independent expert assessment based on international and regional best practices and Malawi law as articulated in Corporate Governance Benchmarking Study.	TBD	TBD	TBD
	Regulatory Independence and Effectiveness ¹⁶	Progress against milestones set as a result of independent expert assessment and / or benchmarking study on issues such as quality of regulatory decisions based upon sound analysis, conformity with Laws of Malawi, independence, and transparency based on international / regional best practices and governing principles in conformance with Annex I	TBD	TBD	TBD
ESCOM Turnaround Activity					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Output Level Indicators					
Improved Financial Management	ESCOM Billing and Collection Efficiency ¹⁷	[Total revenue from post-paid bills collected in current month / total post-paid billed in previous month] x 100 for SES	%	TBD	85 - 90

¹¹ Financial targets will be set after financial modeling is completed, and will be updated annually. Data will be sourced from audited financial statements. Baseline for Cost Recovery Ratio is sourced from World Bank Benchmarking Study. Indicators are useful for monitoring trends and performance as a function of overall financial and investment conditions.

¹³ Capital replacement costs include depreciation.

¹⁴ Capital expansion costs include cost of long-term system expansion projects.

¹⁵ Targets to reflect results of financial analysis and/or MERA regulations.

¹⁶ Indicator to be refined by end of Compact Year 1 after benchmarking and / or other assessment tool has been defined.

¹⁷ Baselines will be set after a new billing system is installed.

Table 3: Power Sector Reform Project

Result	Indicator	Definition	Unit	Baseline	Year 5 Target
		[Total revenue from post-paid bills collected in current month / total post-paid billed in previous month] x 100 for CES	%	TBD	85 - 90
		[Total revenue from post-paid bills collected in current month / total post-paid billed in previous month] x 100 for NES	%	TBD	85 - 90
	Electricity Metered	Indicator to be defined prior to entry into force and in the full M&E plan, in accordance to <u>Annex I</u> .	TBD	TBD	TBD
	Average Collection Period in days	365 / (Total post-paid sales / ((Beginning accounts receivables + ending accounts receivable) / 2))	Days	180	50
	Bad Debt	(Percentage of accounts over 180 days) / (total accounts receivable)	Days	TBD	TBD
	Average Creditor Days	365 / (Total credit purchases / ((Beginning accounts payables + ending accounts payables) / 2))	Days	150	60
	Financial Plans updated	ESCOM Financial Plan with agreed upon financial ratios and covenants as defined in <u>Annex I</u> under Compact updated	Update to Plans	-	Update to plans
	Publication of Audited Financial Statements	ESCOM audited financial statements made public as defined in <u>Annex I</u> under Compact	Publication of statements	0	Annual publication
	Working Capital Gap Financed ¹⁸	Yearly Government financial contribution required	US\$	TBD	0
		Yearly Government financial contribution as fraction of amount indicated by MCC-approved Financial Plan	Percentage	100%	100% if positive amount required
Improved Quality of Customer Service	Customer satisfaction and perceptions of ESCOM service, disaggregated by gender	Percent improvement in key indicators of customers' satisfaction, disaggregated by gender	%	TBD	TBD
Improved ESCOM Operational Management and Efficiency	Average Cost of Electricity Billed	[Total expenses for Gx, Tx and Dx (MK) / total electricity generated(kWh)*US\$]	US\$ ¹⁹ /kWh	\$.0669	\$.1044
	Maintenance Expenditures	Actual maintenance expenditures / Planned maintenance budget as defined in <u>Annex I</u> ²⁰	%	TBD	100
		Adherence to ESCOM maintenance plans as defined in <u>Annex I</u> .	Plans	NA	Yearly update to plans

¹⁸ Financial targets will be set after financial modeling is completed, and will be updated annually. Data will be sourced from audited financial statements and other sources of financial information.

¹⁹ US\$ refers to 2013 USD.

²⁰ Maintenance plan is based on a percentage of un-depreciated asset value for preventive maintenance of generation, transmission and distribution assets.

Table 3: Power Sector Reform Project					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Improved management of procurements by ESCOM	Procurement Audits	Number of procurement audits completed by Auditor General's Office receiving satisfactory assessments	Audit	-	TBD
Regulatory Strengthening Activity					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Output Level Indicators					
Strengthened Regulatory Environment	Tariff application processing time	Average time to respond to tariff rate cases	Days	TBD	TBD
	Tariff Levels and Schedules	Tariff Levels and Schedule adhered to throughout the Compact	USCents/kWh	TBD	TBD ²¹
	Tariff Indexation Framework	Refinement of legal basis for tariff indexation framework adopted and implemented, as defined in <u>Annex I</u>	Framework	0	Framework approved and implemented
	Audited financial statements and annual report published by MERA	Audited financial statements and annual report published	Annual Report	0	Yearly publication of report
	MERA Resolutions	Percentage of ESCOM performance reports reviewed on time	%	-	TBD
Improved Market Structure for Private Investment	Power Market Structure	Restructured power market planning and preparation	Plan developed and preparation for implementation begun	-	Restructuring Plan adopted, and new institutions, if required under Plan, created
		Revised Energy Laws in conformity with Compact approved and enacted	Laws passed	-	Amended laws passed

Table 4: Environment and Natural Resource Management (ENRM) Project.

The following table describes the key Indicators and Targets for monitoring the ENRM Project and its relevant components, as further described in paragraph 3 of Part B of Annex I. In addition, Indicators for monitoring the Social and Gender Enhancement Activity will be developed and refined prior to completion of the M&E Plan during the first year of the Compact.

²¹ Baseline and targets to be sourced from final Detailed Financial Model.

Table 4: Environment and Natural Resource Management (ENRM) Project					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Outcome Level Indicators					
Improved availability of hydroelectric power plants (HEP) in generation	Energy not served due to weeds and sedimentation	Sum MWh by HEP unavailable due to weed and sedimentation faults	MWh	TBD	57,218 less than Baseline
	Percent availability, disaggregated by HEP	Total number of hours that Nkula A is able to produce electricity/ Total number of hours in a month	%	TBD	TBD
		Total number of hours that a plant is able to produce electricity/Total number of hours in a month	%	TBD	TBD
	Percent utilization or operating ratio of HEP, disaggregated by HEP	Actual energy generated by HEP MWh / Theoretical maximum energy of installed capacity MWh	%	Nkula Falls 'A' (3x8) 24 MW 0.87	Nkula Falls 'A' (3x8) 24 MW 0.95
				Nkula Falls 'B' (5x20) 100 MW 0.73	Nkula Falls 'B' (5x20) 100 MW 0.9
				Tedzani Falls I (2x10) 20 MW 0.95	Tedzani Falls I (2x10) 20 MW 0.95
				Tedzani Falls II (2x10) 20 MW 0.95	Tedzani Falls II (2x10) 20 MW 0.95
				Tedzani Falls III (2x26.35) 52 MW 0.73	Tedzani Falls III (2x26.35) 52 MW 0.75
Kapichira Falls Phase I (2x32) 64 MW 0.73				Kapichira Falls Phase I (2x32) 64 MW 0.85	
Kapichira Falls Phase II (2x32) 64 MW	Kapichira Falls Phase II (2x32) 64 MW 0.95				
Reduced weed infestation and siltation in upper Shire River basin	Distribution of invasive aquatic species	Area (Km ²) of weeds in upper Shire River basin as observed in geographic information system maps and field observations	Km ²	TBD	TBD
	Water turbidity	Total suspended solids using standard methodology	TSS	TBD	TBD
ENRM Activity					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Output Level Indicators					
Long-term sustainable arrangement established to support	Operational payment for ecosystem services mechanism established	Legal mechanism enabling ecosystem finance developed and implemented as per the findings of the ENRMAP	Legal mechanism implemented	-	Legal mechanism implemented

Table 4: Environment and Natural Resource Management (ENRM) Project					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
	Biocontrol inoculations, disaggregated by key location	Number of biocontrol inoculations conducted, disaggregated by key location	Number	TBD	TBD
	Efficiency of biological control on water hyacinth	Feeding scars on sampled water hyacinth based on standardized methodology ²²	TBD	TBD	TBD
Weed and Sediment Management Activity					
Result	Indicator	Definition	Unit	Baseline	Year 5 Target
Output Level Indicators					
Improved Control of Aquatic Weeds	ESCOM expenses on aquatic weed management ²³	Total USD expended by ESCOM per year on aquatic weed control, including staff, equipment and fuel	USD	TBD	TBD
	Amount of weed harvested at Liwonde barrage	Weight in metric tons (“MT”) of weed harvested at Liwonde barrage per month	Million MT/month	13.4	20.04 ²⁴
Improved Control of Silt	ESCOM expenses on sediment management ²⁵	Total USD expended by ESCOM per year on silt removal, including staff, equipment and fuel	USD	TBD	TBD
	Percentage of head pond available	Head pond volume for Nkula / Original head pond volume for Nkula	%	30	75
		Head pond volume for Tedzani / Original head pond volume for Tedzani	%	50	75
Head pond volume for Kapichira / Original head pond volume for Kapichira		%	50	75	

(b) **Data Collection and Reporting.** The M&E Plan will establish guidelines for data collection and reporting, and identify the responsible parties. A performance monitoring task force will be created at ESCOM, with participation by MERA and MCA-Malawi. Compliance with data collection and reporting timelines will be conditions for Disbursements for the relevant Activities as set forth in the Program Implementation Agreement. The M&E Plan will specify the data collection methodologies, procedures, and analysis required for reporting on results at all levels. The M&E Plan will describe any interim MCC approvals for data collection, analysis, and reporting plans.

(c) **Data Quality Reviews.** As determined in the M&E Plan or as otherwise requested by MCC, the quality of the data gathered through the M&E Plan will be reviewed to ensure that data reported are as valid, reliable, and timely as resources will allow. The objective of any data

²² Indicator will be refined with the Department of Fisheries based on their previous experience implementing a similar program with DfID.

²³ Indicator is useful for monitoring trends and performance as a function of overall ecosystem conditions.

²⁴ Total harvested material will depend on the performance of harvesting measures and biological controls.

²⁵ Indicator is useful for monitoring trends and performance as a function of overall ecosystem conditions.

quality review will be to verify the quality and the consistency of performance data across different implementation units and reporting institutions. Such data quality reviews also will serve to identify where those levels of quality are not possible, given the realities of data collection.

(d) Semi-annual Reviews. Semi-annual reviews of the Power Sector Reform Project will be conducted as outlined in paragraph 2(c) of Part B of Annex I.

(e) Management Information System. The M&E Plan will describe the information system that will be used to collect data, store, process and deliver information to relevant stakeholders in such a way that the Program information collected and verified pursuant to the M&E Plan is at all times accessible and useful to those who wish to use it. The system development will take into consideration the requirement and data needs of the components of the Program, and will be aligned with existing MCC systems, other service providers, and ministries.

(f) Role of MCA-Malawi. The monitoring and evaluation of this Compact spans one discrete Project and two Activities, and will involve a variety of governmental, nongovernmental, and private sector institutions. In accordance with the designation contemplated by Section 3.2(b) of this Compact, MCA-Malawi is responsible for implementation of the M&E Plan. MCA-Malawi will oversee all Compact-related monitoring and evaluation activities conducted for each of the Activities, ensuring that data from all implementing entities are consistent, accurately reported and aggregated into regular performance reports as described in the M&E Plan.

4. Evaluation Component.

The Evaluation Component of the M&E Plan will contain three types of evaluations: (1) impact evaluations; (2) project performance evaluations; and (3) special studies. MCC also intends to continue monitoring and evaluating the long-term impacts of the Compact even after Compact expiration. The Evaluation Component of the M&E Plan will describe the purpose of the evaluation, methodology, timeline, required MCC approvals, and the process for collection and analysis of data for each evaluation. The results of all evaluations will be made publicly available in accordance with MCC's Policy for Monitoring and Evaluation of Compacts and Threshold Programs.

(a) Impact Evaluation. The M&E Plan will include a description of the methods to be used for impact evaluations and plans for integrating the evaluation method into Project design. Based on in-country consultation with stakeholders, the strategies outlined below were jointly determined as having the strongest potential for rigorous impact evaluation. The M&E Plan will further outline in detail these methodologies. Final impact evaluation strategies are to be included in the M&E Plan. The following is a summary of the potential impact evaluation methodologies.

(i) Infrastructure Development Project. The evaluation will attempt to assess the effectiveness of individual transmission lines and distribution investments in reducing outages and improving power quality using a combination of approaches, to include potentially

an interrupted time series approach, exogenous spatial variation due to the project, combined if sufficiently informative with phased implementation of distribution projects. The incremental impacts of improved reliability, quality and access to power will be explored by comparing key intermediate outcomes, including changes in business investments and productivity, between businesses with access to infrastructure improvements, those without access to improvements, and for those in areas or zones that experience greater or lesser improvements in electricity due to differential levels of infrastructure upgrading. Gender disaggregated information will be pursued to the extent possible.

(ii) Power Sector Reform Project. The most rigorous evaluation possible will be conducted, possibly employing an interrupted time series approach. The evaluation will estimate the causal relationship between changes in sector governance with: (1) changes in ESCOM financial and operational performance; and (2) increases in private investment, generation capacity and electricity coverage for different groups such as female-headed households and regions of the country. The evaluation will also assess: (A) the extent to which improvements in MERA independence and regulatory capacity result in improved quality of service and supply by ESCOM; and (B) the extent to which this Project improves the efficiency (employees per customer, response time to outages, etc.) and reduces losses at ESCOM. Differentiated impacts on customer service and access to men, women, and vulnerable groups will be explored.

(iii) Environment and Natural Resource Management (ENRM) Project. The evaluation will attempt to isolate the causal factors linking weed and siltation in the Shire river basin to outages downstream at generation sites, particularly the extent to which palliative weed and silt management measures reduce the frequency and duration of outages and improve plant availability at hydropower plants downstream of Liwonde barrage. Potentially using a difference-in-differences and/or matching design, the evaluation will also attempt to look at how increases in tariff and/or electrification affect consumer energy choices, such as the use of charcoal and fuel wood, and the impact of the latter has on the environment. To the extent appropriate, differentiated impacts on different income groups, males vs. females, formal and informal firms, and factors such as access or non-access to capital will be explored.

In order to implement the most rigorous evaluations possible, the Government and ESCOM will cooperate in assembling the required time series and other data required to implement the chosen methodology.

(b) Project Performance Evaluation. The M&E Plan will make provision for evaluations of all relevant Projects. The M&E Plan will also make provision for mid-term and final Project level evaluations (“*Mid-term Evaluation*” and “*Final Evaluations*”). With the prior written approval of MCC, the Government or MCA-Malawi will engage independent evaluators to conduct the Mid-term and Final Evaluations at the end of the Project. The Evaluations will review progress during Compact implementation and provide a qualitative context for interpreting monitoring data and impact evaluation findings. They must at a minimum: (i) evaluate the efficiency and effectiveness of the Projects; (ii) determine if and analyze the reasons why the Compact Goal, Program Objective and Project Objectives, outcome(s) and output(s) were or were not achieved; (iii) identify positive and negative

unintended results of the Program; (iv) provide lessons learned that may be applied to similar projects; and (v) assess the likelihood that results will be sustained over time.

(c) Special Studies. The M&E Plan will include a description of the methods to be used for special studies, as necessary, funded through this Compact or by MCC. Plans for conducting the special studies will be determined jointly between the Government or MCA-Malawi and MCC before the approval of the M&E Plan. MCC, the Government and MCA-Malawi have agreed to conduct the following study as part of the Power Sector Reform Project:

(i) By end of Year 1 of the Compact, the Government and MCC will agree on a method by which to independently evaluate and assess Malawi's regulatory environment and the governance of ESCOM and the power sector in Malawi as a whole. MCA-Malawi and the Government will then conduct both the Corporate Governance Benchmarking Study and the Sector Benchmarking Study by Year 2 of the Compact.

The M&E Plan will identify and make provision for any other special studies, *ad hoc* evaluations, and research that may be needed as part of the monitoring and evaluating of this Compact. Either MCC, MCA-Malawi or the Government may request special studies or *ad hoc* evaluations of Projects, or the Program as a whole prior to the expiration of the Compact Term. When the Government engages an evaluator, the engagement will be subject to the prior written approval of MCC. Contract terms must ensure non-biased results and the publication of results.

(d) Request for Ad Hoc Evaluation or Special Study. If MCA-Malawi or the Government require an *ad hoc* independent evaluation or special study at the request of the Government for any reason, including for the purpose of contesting an MCC determination with respect to a Project or Activity or to seek funding from other donors, no MCC Funding resources may be applied to such evaluation or special study without MCC's prior written approval.

5. Other Components of the M&E Plan.

In addition to the monitoring and evaluation components, the M&E Plan will include the following components for the Program, Project and Activities, including, where appropriate, roles and responsibilities of the relevant parties and providers:

(a) Costs. A detailed cost estimate for all components of the M&E Plan; and

(b) Assumptions and Risks. Any assumption or risk external to the Program that underlies the accomplishment of the Program Objective, Project Objectives and Activity outcomes and outputs.

6. Approval and Implementation of the M&E Plan.

The approval and implementation of the M&E Plan, as amended from time to time, will be in accordance with the Program Implementation Agreement, any other relevant Supplemental Agreement and the MCC Policy for Monitoring and Evaluation of Compacts and Threshold Programs.

ANNEX V DEFINITIONS

Activity has the meaning provided in Part B of Annex I.

Additional Representative has the meaning provided in Section 4.2.

Audit Guidelines has the meaning provided in Section 3.8(a).

Baseline has the meaning provided in paragraph 3 of Annex III.

Board of Trustees has the meaning provided in paragraph 3(a)(i) of Part C of Annex I.

CE has the meaning provided in paragraph 4 of Part C of Annex I.

CIF Disbursement has the meaning provided in Annex IV.

Compact has the meaning provided in the Preamble.

Compact Goal has the meaning provided in Section 1.1.

Compact Implementation Funding has the meaning provided in Section 2.2(a).

Compact Records has the meaning provided in Section 3.7(a).

Compact Term has the meaning provided in Section 7.4.

Corporate Governance Benchmarking Study has the meaning provided in paragraph 2(a)(ii) of Part B of Annex I.

Covered Provider has the meaning provided in Section 3.7(c).

Disbursement has the meaning provided in Section 2.4.

DSC has the meaning provided in paragraph 2(a)(ii) of Part B of Annex I.

ESCOM has the meaning provided in Section 7.2(d).

ESCOM Board has the meaning provided in paragraph 2(a)(ii) of Part B of Annex I.

ENRM has the meaning provided in paragraph 3 of Part B of Annex I.

ENRM Activity has the meaning provided in paragraph 3(b) of Part B of Annex I.

ESIAs has the meaning provided in paragraph 4 of Part B of Annex I.

Evaluation Component has the meaning provided in paragraph 1 of Annex III.

Excess CIF Amount has the meaning provided in Section 2.2(c).

Final Evaluations has the meaning provided in paragraph 4(b) of Annex III.

Financial Plan has the meaning provided in paragraph 2(a)(i) of Part B of Annex I.

Fiscal Agent has the meaning provided in paragraph 5 of Part C of Annex I.

Governance Guidelines means MCC's Guidelines for Accountable Entities and Implementation Structures, as such may be posted on MCC's Website from time to time.

Government has the meaning provided in the Preamble.

IFC has the meaning provided in paragraph 4 of Part B of Annex I.

IFC Performance Standards has the meaning provided in paragraph 4 of Part B of Annex I.

Implementation Letter has the meaning provided in Section 3.5.

Indicators has the meaning provided in paragraph 3(a) of Annex III.

Inspector General has the meaning provided in Section 3.7(d).

Intellectual Property means all registered and unregistered trademarks, service marks, logos, names, trade names and all other trademark rights; all registered and unregistered copyrights; all patents, inventions, shop rights, know how, trade secrets, designs, drawings, art work, plans, prints, manuals, computer files, computer software, hard copy files, catalogues, specifications, and other proprietary technology and similar information; and all registrations for, and applications for registration of, any of the foregoing, that are financed, in whole or in part, using MCC Funding.

IRP has the meaning provided in paragraph 1(a) of Part B of Annex I.

Kapichira II has the meaning provided in paragraph 1(e) of Part B of Annex I.

kWh has the meaning provided in paragraph 2 of Part A of Annex I.

M&E Annex has the meaning provided in Annex III.

M&E Plan has the meaning provided in Annex III.

Malawi has the meaning provided in the Preamble.

Management Unit has the meaning provided in paragraph 3 (c)(i) of Part C of Annex I.

MCA Act has the meaning provided in Section 2.2(a).

MCA-Malawi Core Team has the meaning provided in paragraph 1(b) of Part A of Annex I.

MCA-Malawi Trust Deed has the meaning provided in paragraph 3 of Part C of Annex I.

MCC has the meaning provided in the Preamble.

MCC Environmental Guidelines has the meaning provided in Section 2.7(c).

MCC Funding has the meaning provided in Section 2.3.

MCC Gender Policy means the MCC “Gender Policy”(including any guidance documents issued in connection with the guidelines) posted from time to time on the MCC Website or otherwise made available to the Government.

MCC Policy for Monitoring and Evaluation of Compacts and Threshold Programs has the meaning provided in Annex III.

MCC Program Procurement Guidelines has the meaning provided in Section 3.6.

MCC Website has the meaning provided in Section 2.7.

MERA has the meaning provided in paragraph 2 of Part B of Annex I.

MERA Board has the meaning provided in paragraph 2(b)(ii) of Part B of Annex I.

MGDS has the meaning provided in paragraph 2 of Annex III.

Mid-term Evaluation has the meaning provided in paragraph 4(b) of Annex III.

MoE has the meaning provided in paragraph 2 of Part B of Annex I.

Monitoring Component has the meaning provided in paragraph 1 of Annex III.

Multi-Year Financial Plan Summary has the meaning provided in paragraph 1 of Annex II.

ODPP has the meaning provided in paragraph 2(a)(iii) of Part B of Annex I.

Party and Parties have the meaning provided in the Preamble.

Permitted Account has the meaning provided in Section 2.4.

Power Sector Reform Agenda has the meaning provided in paragraph 2(c) of Part B of Annex I.

PPP has the meaning provided in paragraph 1(a) of Part A of Annex I.

Principal Representative has the meaning provided in Section 4.2.

Procurement Agent has the meaning provided in paragraph 6 of Part C of Annex I.

Program has the meaning provided in the Recitals.

Program Assets means any assets, goods or property (real, tangible or intangible) purchased or financed in whole or in part (directly or indirectly) by MCC Funding.

Program Funding has the meaning provided in Section 2.1.

Program Guidelines means collectively the Audit Guidelines, the MCC Environmental Guidelines, the MCC Gender Policy, the Governance Guidelines, the MCC Program Procurement Guidelines, the Reporting Guidelines, the MCC Policy for Monitoring and Evaluation of Compacts and Threshold Programs, the MCC Cost Principles for Government Affiliates Involved in Compact Implementation (including any successor to any of the foregoing) and any other guidelines, policies or guidance papers relating to the administration of MCC-funded compact programs and as from time to time published on the MCC Website.

Program Implementation Agreement and PIA have the meaning provided in Section 3.1.

Program Objective has the meaning provided in Section 1.2.

Project(s) has the meaning provided in Section 1.3.

Project Cooperation Agreement has the meaning provided in paragraph 4 of Part C of Annex I.

Project Objective(s) has the meaning provided in Section 1.3.

Project Partner has the meaning provided in paragraph 4 of Part C of Annex I.

Provider has the meaning provided in Section 3.7(c).

REA has the meaning provided in paragraph 2(b)(iii) of Part B of Annex I.

Reporting Guidelines means the MCC “Guidance on Quarterly MCA Disbursement Request and Reporting Package” posted by MCC on the MCC Website or otherwise publicly made available.

Restructuring Plan has the meaning provided in paragraph 2(b)(iii) of Part B of Annex I.

SBM Plan has the meaning provided in paragraph 2(b)(iii) of Part B of Annex I.

Sector Benchmarking Study has the meaning provided in paragraph 2(b)(ii) of Part B of Annex I.

SGEF has the meaning provided in paragraph 3(c) of Part B of Annex I.

Social and Gender Enhancement Activity has the meaning provided in paragraph 3(c) of Part B of Annex I.

Social and Gender Integration Plan has the meaning provided in paragraph 4 of Part B of Annex I.

Supplemental Agreement means any agreement between (a) the Government (or any Government affiliate) and MCC (including, but not limited to, the PIA), or (b) MCC and/or the Government (or any Government affiliate), on the one hand, and any third party, on the other hand, including any of the Providers, in each case, setting forth the details of any funding, implementing or other arrangements in furtherance of this Compact.

Target has the meaning provided in paragraph 3(a) of Annex III.

Tariff Indexation Framework has the meaning provided in paragraph 2(b)(i) of Part B of Annex I.

Tax Schedules has the meaning provided in Section 2.8(b).

Taxes has the meaning provided in Section 2.8(a).

Turnaround Facility has the meaning provided in Section 7.2(d).

Turnaround Facility Agreement has the meaning provided in paragraph 2(a)(i) of Part B of Annex I.

United States Dollars or US\$ means the lawful currency of the United States of America.

USAID is the United States Agency for International Development.

Weed and Sediment Management Activity has the meaning provided in paragraph 3(a) of Part B of *Annex I*.