

CONFORMED COPY

GEF GRANT NUMBER TF090542

Global Environment Facility Grant Agreement

(Energy Development and Access Project)

between

REPUBLIC OF GHANA

and

**INTERNATIONAL BANK FOR RECONSTRUCTION
AND DEVELOPMENT**

(acting as an Implementing Agency of the Global Environment Facility)

Dated August 8, 2007

GEF GRANT NUMBER TF090542

**GLOBAL ENVIRONMENT FACILITY
GRANT AGREEMENT**

AGREEMENT dated August 8, 2007, entered into between the REPUBLIC OF GHANA (“Recipient”) and the INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (“World Bank”), acting as an Implementing Agency of the Global Environment Facility.

The Recipient and the World Bank hereby agree as follows:

**Article I
Standard Conditions; Definitions**

- 1.01. The Standard Conditions (as defined in the Appendix to this Agreement) constitute an integral part of this Agreement.
- 1.02. Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the Standard Conditions or in the Appendix to this Agreement.

**Article II
The Project**

- 2.01. The Recipient declares its commitment to the objectives of the project described in Schedule 1 to this Agreement (“Project”) and the Program. To this end, the Recipient shall carry out Parts A.1, A.3, A.4, C.2, C.3, and C.5 (a), (b) and (c) of the Project through MOE and cause: (a) Parts A.2, B.1, B.2 and C.1 (a) of the Project to be carried out by ECG; (b) Part C.1(b) of the Project to be carried out by VRA; and (c) Parts C.4 and C.5 (d) and (e) of the Project to be carried out by ARB Apex Bank, all in accordance with the provisions of Article II of the Standard Conditions and the Project Agreements.
- 2.02. Without limitation upon the provisions of Section 2.01 of this Agreement, and except as the Recipient and the World Bank shall otherwise agree, the Recipient shall ensure that the Project is carried out in accordance with the provisions of Schedule 2 to this Agreement.

**Article III
The Grant**

- 3.01. The World Bank agrees to extend to the Recipient, on the terms and conditions set forth or referred to in this Agreement, a grant in an amount equal to

five million five hundred thousand United States Dollars (\$5,500,000) (“Grant”) to assist in financing the Project.

- 3.02. The Recipient may withdraw the proceeds of the Grant in accordance with Section IV of Schedule 2 to this Agreement.

Article IV
Additional Remedies

- 4.01. The Additional Events of Suspension referred to in Section 4.02 (i) of the Standard Conditions consist of the following:

- (a) a situation has arisen which shall make it improbable that the Program, or a significant part thereof, will be carried out;
- (b) the Recipient has taken or permitted to be taken any action which would prevent or interfere with the performance by any Project Implementing Entity of any of its obligations under the relevant Project Agreement;
- (c) any Project Implementing Entity has failed to perform any obligation under the relevant Project Agreement;
- (d) IBRD or IDA has declared any Project Implementing Entity ineligible to be awarded a contract financed by IBRD or IDA;
- (e) as a result of events which have occurred after the date of this Agreement, an extraordinary situation has arisen which makes it improbable that any Project Implementing Entity will be able to perform its obligations under the relevant Project Agreement;
- (f) any Project Implementing Entity’s Legislation has been amended, suspended, abrogated, repealed or waived so as to affect materially and adversely the ability of the relevant Project Implementing Entity to perform any of its obligations under the relevant Project Agreement;
- (g) (i) Any of the Co-financing Agreements for the Co-financings from the ACGF, GPOBA and Switzerland have failed to become effective by January 30, 2008, or the Co-financing Agreement for the Co-financing from the AfDF has failed to become effective by June 30, 2008, or such later date as the World Bank has established by notice to the Recipient; provided, however, that the provisions of this paragraph shall not apply if the Recipient establishes to the satisfaction of the World Bank that adequate funds for the Project are available from other sources on terms and conditions consistent with its obligations under this Agreement; (ii) Subject to sub-paragraph (iii) of this paragraph: (A) the right to withdraw the proceeds of any Co-financing or the IDA Financing

has been suspended, canceled or terminated in whole or in part, pursuant to the terms of the relevant Co-financing Agreement or the IDA Financing Agreement; or (B) any Co-financing or the IDA Financing has become due and payable prior to its agreed maturity; and (iii) Sub-paragraph (ii) of this paragraph shall not apply if the Recipient establishes to the satisfaction of the World Bank that: (A) such suspension, cancellation, termination or prematuring was not caused by the failure of the Recipient to perform any of its obligations under the relevant Co-financing Agreement or the IDA Financing Agreement; and (B) adequate funds for the Project are available from other sources on terms and conditions consistent with the Recipient's obligations under this Agreement; and

- (h) the World Bank has determined after the Effective Date that prior to such date but after the date of this Agreement, an event has occurred which would have entitled the World Bank to suspend the Recipient's right to make withdrawals from the Grant Account if this Agreement had been effective on the date such event occurred.

Article V Effectiveness; Termination

- 5.01. This Agreement shall not become effective until evidence satisfactory to the World Bank has been furnished to the World Bank that the conditions specified below have been satisfied:
 - (a) the execution and delivery of this Agreement on behalf of the Recipient have been duly authorized or ratified by all necessary governmental and corporate action.
 - (b) the IDA Financing Agreement, the Project Agreements and the Subsidiary Agreements have been executed and delivered and all conditions precedent to their effectiveness or to the right of the Recipient to make withdrawals under the IDA Financing Agreement (other than the effectiveness of this Agreement) have been fulfilled.
- 5.02. As part of the evidence to be furnished pursuant to Section 5.01 (a), there shall be furnished to the World Bank an opinion or opinions satisfactory to the World Bank of counsel acceptable to the World Bank or, if the World Bank so requests, a certificate satisfactory to the World Bank of a competent official of the Recipient, showing, on behalf of the Recipient, that this Agreement, the IDA Financing Agreement, the Project Agreements and the Subsidiary Agreements have been duly authorized or ratified by, and executed and delivered on its behalf and are legally binding upon it in accordance with their respective terms.

- 5.03. Except as the Recipient and the World Bank shall otherwise agree, the Effective Date on which this Agreement shall enter into effect shall be the date upon which the World Bank dispatches to the Recipient notice of its acceptance of the evidence required pursuant to Section 5.01. If, before the Effective Date, any event has occurred which would have entitled the World Bank to suspend the right of the Recipient to make withdrawals from the Grant Account if this Agreement had been effective, the World Bank may postpone the dispatch of the notice referred to in this Section until such event (or events) has (or have) ceased to exist.
- 5.04. This Agreement and all obligations of the parties under it shall terminate if it has not entered into effect by the date 120 days after the date of this Agreement, unless the World Bank, after consideration of the reasons for the delay, establishes a later date for the purpose of this Section. The World Bank shall promptly notify the Recipient of such later date.

Article VI
Recipient's Representative; Addresses

6.01. The Recipient's Representative referred to in Section 7.02 of the Standard Conditions is its Minister responsible for finance.

6.02. The Recipient's Address referred to in Section 7.01 of the Standard Conditions is:

Ministry of Finance and Economic Planning
P.O. Box MB40
Accra, Ghana

Cable:	Telex:	Facsimile:
ECONOMICON Accra	2205 MIFAEP GH `	233-21-667069 233-21-663854

6.03. The World Bank's Address referred to in Section 7.01 of the Standard Conditions is:

International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable:	Telex:	Facsimile:
INTBAFRAD Washington, D.C.	248423 (MCI) or 64145 (MCI)	1-202-477-6391

AGREED at Accra, Republic of Ghana, as of the day and year first above written.

REPUBLIC OF GHANA

By /s/ Kwadwo Baah-Wiredu

Authorized Representative

**INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT**

**(acting as an Implementing Agency of the Global
Environment Facility)**

By /s/ Mats Karlsson

Authorized Representative

SCHEDULE 1

Project Description

The objectives of the Project are to assist the Recipient in: (i) improving the operational efficiency of the electricity distribution system and increasing the population's access to electricity; and (ii) transitioning Ghana to a low-carbon economy through the reduction of greenhouse gas emissions.

The Project consists of the following parts:

Part A. Sector and Institutional Development

1. Regulatory Capacity Strengthening

Support to PURC to:

- (a) carry out technical and operational reviews of VRA and ECG to analyze VRA's and ECG's performance and capacity in, among others, planning, engineering, operations and maintenance, finance, corporate and customer services, and to propose measures for improving such performance and capacity;
- (b) review the cost of electricity generation, transmission and distribution and develop cost reflective tariff levels and structures;
- (c) carry out public education and communication activities to inform the public of tariff setting procedures;
- (d) develop a tariff methodology for renewable energy generation and, in coordination with EC, develop a standardized power purchase agreement for small scale renewable energy projects; and
- (e) carry out training, workshops and other activities to strengthen the capacity and performance of PURC electricity sector staff.

2. ECG Corporate Strengthening Program

Support to ECG to:

- (a) carry out a technical assistance program to design and implement measures for enhancing ECG's corporate, operational and financial management performance; and
- (b) carry out training and capacity building activities for ECG management and senior personnel, defined, among others, on the basis of the technical and operational reviews developed under Part A.1 (a) of the Project and the

recommendations developed under Part A.2 (a) of the Project, and carry out studies related to ECG's rural electrification business and distribution system investments.

3. Sector Policy and Strategy Development

- (a) Support to MOE to: (i) facilitate the preparation of enhanced corporate performance contracts with ECG and VRA drawing on the findings of, among others, the technical and operational audits carried out under Part A.1 (a) of the Project; (ii) prepare and implement its institutional development strategy; and (iii) carry out sector development studies, including the development of a framework for contracting independent power producers.
- (b) Support to EC to: (i) prepare, monitor and implement a renewable energy policy, law and related regulations and action plans; (ii) carry out a renewable energy resource assessment and provide information needed for the private sector to develop renewable energy projects; (iii) implement information campaigns for policy and decision makers, utilities and consumers to promote renewable energy and energy efficiency; and (iv) prepare the policy and regulatory framework for biofuel and woodfuels.

4. Environmental, Social and Project Management

- (a) Provision of technical and operational assistance to MOE to carry out the day-to-day administration, coordination, environmental and social safeguard management, procurement and financial management of Project activities.
- (b) (i) Support to EPA to conduct annual reviews and ongoing monitoring of the preparation and implementation of environmental assessments and other instruments as required for the activities carried out under the Project, carry out an assessment of EPA's internal resource allocation for environmental assessments, develop environmental management plan preparation and public consultation guidelines and administer related training; and (ii) Support to VRA to train and build the capacity of its social and resettlement officers.
- (c) Support to MOE to monitor and evaluate the Project's implementation progress and outcomes.
- (d) Support to an interim secretariat of MOE to manage the rural electrification funds under Parts C.2 and C.3 of the Project until REA has been established.

Part B. Electricity Distribution Improvement

1. ECG Electricity Distribution System Upgrade

- (a) Upgrade and construction of 33/11 kV substations and 33 kV and 11 KV overhead lines and switchgear in selected areas, addition or replacement of distribution transformation facilities, and such materials as required for network maintenance and expansion, rehabilitation of LV lines in selected areas, and reconfiguration of parts of the low voltage distribution system into a high voltage distribution system in peri-urban areas of Accra selected for support through the Financing.
- (b) Upgrading and construction of 33/11 kV substations and 33 kV and 11 KV overhead lines and switchgear in selected areas, rehabilitation of low voltage lines in selected areas, and reconfiguration of parts of the low voltage distribution system into a high voltage distribution system in Takoradi and Kumasi areas selected for support through the Co-financing from the AfDF.
- (c) Addition or replacement of distribution facilities, and such materials as required for network maintenance and expansion, selected for support through the Co-financing from the ACGF.
- (d) Provision of Shunt capacitor compensation in selected areas of the network.

2. ECG Commercial and Technical Capacity Upgrade

- (a) Establishment of new ECG customer service centers and district offices, provision of vehicles for customer service centers and project implementation team, replacement of faulty meters, rerouting of service tails, procurement of automatic meter testing and calibration facilities, extension of local area networks/wide area networks to district offices and customer service centers, development of applications for project material management, provision of construction and installation equipment, relevant technical and office tools to improve ECG's operational capacity, carrying out training and capacity building measures for ECG operational personnel, and provision of design and supervision support, selected for support through the Financing.
- (b) Establishment of an ECG-wide trouble call center, technical support to supplement the network and database management system, extension of the prepayment metering system from the Accra region to the Western, Central and Volta regions, secondary substation metering and provision of summation current transformers, implementation of marketing and customer education initiatives and customer perception surveys, development of secondary automation and supervisory control and data acquisition systems for rural networks and for the

Takoradi and Kumasi areas, selected for support through the Co-financing from the ACGF.

Part C. Electricity Access and Renewable Energy

1. Intensification of Electricity Distribution Systems

- (a) Carrying out of ECG electricity distribution system intensification investments in selected rural and peri-urban towns of selected districts through the upgrading of the 33 kV network, construction of 11 kV and low voltage distribution networks, transformers, service connections and associated equipment, including the carrying out of technical design and supervision of the intensification investments.
- (b) Carrying out of VRA electricity distribution system intensification investments in selected towns and villages in selected VRA-covered regions through the upgrading of the 33 kV network, construction of 11 kV and low voltage distribution networks, transformers, service connections and associated equipment, including the carrying out of technical design and supervision of the intensification investments.

2. Power Grid Extensions

- (a) Provision of RE Grants to ECG for the carrying out of power grid extensions in selected un-electrified rural towns and villages to be funded through the Financing, through the construction of 33 kV network, 11 kV and low voltage distribution networks, transformers, service connections and associated equipment.
- (b) Provision of RE Grants to ECG for the carrying out of grid extensions in selected un-electrified rural towns and villages to be funded through the Co-financing from the ACGF, through the construction of 33 kV network, 11 kV and low voltage distribution networks, transformers, service connections and associated equipment.
- (c) Provision of RE Grants to ECG for the carrying out of grid extensions in selected un-electrified rural towns and villages to be funded through the Co-financing from Switzerland, through the construction of 33 kV network, 11 kV and low voltage distribution networks, transformers, service connections and associated equipment.

3. Mini Power Grids and Grid-Connected Renewable Energy

Provision of RE Grants to eligible developers for eligible projects to install mini power grid systems and provide grid-connected renewable energy such as small hydro, wind, and biomass.

4. Solar Photovoltaic Systems

- (a) Establishment and operation of a revolving line of credit facility for the provision of Solar PV Loans to eligible rural banks to finance loans to eligible consumers for the supply, installation, maintenance and battery replacement of solar PV systems.
- (b) Provision of Solar PV Grants to eligible rural banks to co-finance the loans to eligible consumers under Part C.4 (a) for the supply, installation, maintenance and battery replacement of solar PV systems.

5. Capacity Building

- (a) Support to REA and, until its establishment, MOE to develop the policy, institutional, regulatory, and financing framework for electricity access expansion, including the establishment and operation of the Rural Electrification Fund.
- (b) Support to REA and, until its establishment, MOE to carry out renewable energy feasibility and development studies, develop a rural electrification master plan and regulatory instruments for renewable energy mini-grids, and prepare bidding and contracting documents for grid-connected renewable investments.
- (c) (i) Provision of BDS Grants to eligible renewable energy developers to develop business plans, market development plans, feasibility studies, loan application documentation, environmental and social impact assessments of renewable energy projects, set-up of local solar PV dealerships and other eligible activities required for renewable energy investments; and (ii) Provision of a BDS Grant to the Association of Ghana Solar Industry to conduct solar PV promotion campaigns and training programs for local solar PV dealers.
- (d) Support to ARB Apex Bank and eligible rural banks to: (i) manage the Solar PV Loans under Part C.4(a) of the Project and the Solar PV Grants under Part C.4(b) of the Project; and (ii) develop financial products, design tripartite agreements between rural banks, dealers and consumers, promote solar PV systems, and carry out training courses, study tours and other capacity building activities.
- (e) Support to ARB Apex Bank and participating rural banks to carry out monitoring and verification of technical standards for solar PV equipment and installation.

SCHEDULE 2**Project Execution****Section I. Implementation Arrangements****A. Subsidiary Agreements**

1. To facilitate the carrying out of the Project Implementing Entities' Respective Parts of the Project, the Recipient shall make part of the proceeds of the Grant, the IDA Financing and the Co-financing from the ACGF and GPOBA available to the Project Implementing Entities under subsidiary agreements ("Subsidiary Agreements") between the Recipient and each Project Implementing Entity, under terms and conditions approved by the World Bank, which shall include, inter alia:
 - (a) the terms and conditions specified in Section I.A of Schedule 2 to the IDA Financing Agreement; and
 - (b) for the purposes of carrying out by ARB Apex Bank of its Respective Part of the Project, the obligation of the Recipient to make available to ARB Apex Bank on non-reimbursable grant basis the proceeds of the Grant allocated from time to time to Categories 1, 3 and 5 of the table set forth in Section IV.A.2 of this Schedule.
2. The Recipient shall exercise its rights under the Subsidiary Agreements in such manner as to protect the interests of the Recipient and the World Bank and to accomplish the purposes of the Financing. Except as the World Bank shall otherwise agree, the Recipient shall not assign, amend, abrogate or waive the Subsidiary Agreements or any of their provisions.

B. Institutional Arrangements**1. Project Steering Committee**

- (a) The Recipient shall maintain at all times until the completion of the Project, the Project Steering Committee with a composition, mandate and resources satisfactory to the World Bank.
- (b) Without limitation to sub-paragraph (a) of this paragraph, the Project Steering Committee shall be chaired by the Minister of Energy and include representatives of MOE, ECG, VRA, ARB Apex Bank, EC, PURC, EPA, MOFEP, and private industry, and shall be responsible for, *inter alia*: (i) reviewing, on a quarterly basis or more often if required, progress made towards achieving the Project's

objectives; (ii) facilitating the coordination of Project activities among the entities represented in the Steering Committee, and making recommendations for removal of any obstacles to the implementation of the Project; and (iii) providing comments on reports prepared by the agencies involved in the implementation of the Project for the benefit of the World Bank and the Co-financiers.

2. **Implementing Agencies**

- (a) The Recipient shall ensure that MOE, ECG, and VRA are maintained at all times during the implementation of the Project with functions, staffing and resources satisfactory to the World Bank, for the purpose of ensuring the prompt and efficient implementation of the Project.
- (b) Without limitation to sub-paragraph (a) of this paragraph, MOE shall be responsible for the overall coordination, management, monitoring and evaluation of the Project in accordance with the Operational Manuals.

3. **Rural Electrification Agency**

- (a) The Recipient shall, not later than December 31, 2008, (i) establish a Rural Electrification Agency with a mandate, staffing and resources satisfactory to the World Bank, and (ii) a Rural Electrification Fund governed by provisions satisfactory to the World Bank and to be managed by REA as a long-term financing mechanism for electricity access and renewable energy development.
- (b) Without limitation upon the provisions of sub-paragraph (a) of this paragraph, REA shall, upon its establishment, be responsible for rural electrification and related renewable energy development, including the operation of the Rural Electrification Fund and the provision of RE Grants under Parts C.2 and C.3 of the Project in accordance with the RE Grants Manual.

C. Operational Manuals

- 1. The Recipient shall ensure that the following operational manuals, in form and substance satisfactory to the World Bank, are adopted and furnished to the World Bank:
 - (a) Project Implementation Plans for MOE and each of the Project Implementing Entities, each such plan containing detailed arrangements and procedures for: (i) institutional coordination and day-to-day execution of the Project; (ii) disbursement and financial management; (iii) procurement; (iv) environmental and social safeguards management;

- (v) monitoring, evaluation, reporting and communication; and (vi) such other administrative, financial, technical and organizational arrangements and procedures as shall be required for the Project;
 - (b) a BDS Grants Manual defining eligibility criteria and appraisal, approval, contracting and supervision arrangements and procedures for BDS Subprojects, including a model Sub-financing Agreement;
 - (c) an RE Grants Manual defining eligibility criteria and appraisal, approval, contracting and supervision arrangements and procedures for REF Subprojects, including a model Sub-financing Agreement; and
 - (d) a Solar PV Financing Manual defining eligibility criteria and appraisal, approval, contracting and supervision arrangements and procedures for Solar PV Subprojects, including model Sub-financing Agreement(s).
2. The Recipient shall ensure that the Project is carried out in accordance with the arrangements and procedures set out in the OMs (provided, however, that in case of any conflict between the arrangements and procedures set out in the OMs and the provisions of this Agreement, the provisions of this Agreement shall prevail), and shall ensure that the OMs or any of their provisions are not amended, abrogated or waived without prior approval in writing by the World Bank.

D. Annual Work Plans and Budgets

1. The Recipient shall prepare and furnish to the World Bank for its approval, not later than October 31 of each year during the implementation of the Project, an Annual Work Plan and Budget containing all eligible Project activities and expenditures planned for the following Fiscal Year, including a specification of the source or sources of financing for each contract for expenditures eligible for financing from each such source and the percentage of financing of each contract from each such source.
2. The Recipient shall not make or allow to be made any material change to the approved Annual Work Plan and Budget without prior approval in writing by the World Bank.

E. Environmental and Social Safeguard Measures

1. The Recipient shall ensure that the Project is carried out in accordance with the provisions of the Environmental and Social Safeguard Instruments and the Resettlement Policy Framework and shall ensure that, prior to carrying out any construction, rehabilitation and maintenance activities under the Project:

- (a) any necessary Resettlement Action Plans are prepared, disclosed and implemented in a manner acceptable to the World Bank, in accordance with the RPF; and
 - (b) any necessary Environmental Impact Assessments are prepared and disclosed, Environmental Management Plans are prepared, disclosed and implemented, and EPA approvals and permits are obtained and maintained by the Recipient and the Project Implementing Entities in full force and effect at all times during the implementation of the Project, in accordance with the Environmental and Social Safeguard Instruments, and in a manner satisfactory to the World Bank.
- 2. Without limitation upon the provision of paragraph 1 of this Part E, the Recipient shall, through the “Sector Specific Guidelines for Environmental Impact Assessments” of EPA:
 - (a) ensure that EIAs prepared under the Project assess the adequacy of the Recipient’s applicable legal and institutional framework, including applicable international environmental agreements, and ensure that the Project is implemented in compliance with all such applicable legal obligations; and
 - (b) ensure the full and meaningful disclosure of, and conduct consultations and public hearings on, the EIAs, EMPs, RAPs and other relevant documents prepared in accordance with paragraph 1 of this Part E, in accessible places and in a form, manner and language understandable to stakeholders and any Affected Persons.
- 3. The Recipient shall not amend or waive, or permit to be amended or waived, the Environmental and Social Safeguard Instruments, the RPF, RAPs or EMPs, or any provision thereof, without prior approval in writing by the World Bank.
- 4. The Recipient shall ensure that any inconsistency or ambiguity that may arise in the interpretation or application by the Recipient and the Project Implementing Entities of any of the documents comprising the Environmental and Social Safeguard Instruments shall be resolved in favor of the more stringent standard.
- 5. The Recipient shall ensure that: (i) all measures for implementing the Environmental and Social Safeguard Instruments, the RPF, RAPs and EMPs are taken in a timely manner; (ii) the World Bank is furnished with information on the implementation of the said measures through the Project Reports referred to in Section II.A of this Schedule, and through annual review reports prepared by EPA and furnished to the World Bank not later than June 30, 2008 of each year during the implementation of the Project; and (iii) any shortcomings identified in the carrying out of the said measures which may, in the opinion of

EPA and/or the World Bank, materially or adversely affect the implementation of the Project, are promptly remedied taking into account the World Bank's views on the matter.

F. Sub-financings

1. General

The Recipient shall ensure that Subprojects are appraised, approved and monitored and that the Sub-financings are administered in accordance with the provisions and procedures set forth or referred to in this Part F and in more detail in the BDS Grants Manual, the RE Grants Manual, or the Solar PV Financing Manual, as the case may be.

2. Eligibility Criteria for Subprojects

No proposed Subproject shall be eligible for a Sub-financing unless the BDS Grants Manager, REA (or MOE until the establishment of REA), or ARB Apex Bank, as the case may be, has determined that the proposed Subproject satisfies the eligibility criteria set forth or referred to in the BDS Grants Manual, the RE Grants Manual or the Solar PV Financing Manual, as the case may be.

3. Approval of Subprojects

The Recipient shall cause the BDS Grants Manager, REA (or MOE until its establishment), and ARB Apex Bank, as the case may be, to carry out an appraisal of the compatibility of each proposed Subproject with the eligibility criteria and the technical, environmental, engineering, financial and procurement guidelines and procedures set forth in the BDS Grants Manual, the RE Grants Manual or the Solar PV Financing Manual, as the case may be, and based on such appraisal, approve Subprojects in accordance with the guidelines and procedures set forth in the relevant manual.

4. Terms and Conditions of Sub-financings

A Subproject shall be carried out pursuant to a Sub-financing Agreement, to be concluded between, on the one part, the BDS Grants Manager, REA (or MOE until its establishment) or ARB Apex Bank, as the case may be, on behalf of the Recipient, and on the other part, the relevant Beneficiary, under terms and conditions described or referred to in more detail in the BDS Grants Manual, the RE Grants Manual or the Solar PV Financing Manual, as the case may be, which, *inter alia*, shall include the following:

- (a) the description of the activities to be implemented, including the outputs and performance targets to be achieved, and the arrangements for monitoring and reporting on the implementation of the Subproject;

- (b) the obligation of the Beneficiary to contribute, as applicable, in cash and/or in-kind, a minimum percentage of the projected Subproject cost as specified in the relevant manual;
- (c) the modalities of transfer of funds to the Beneficiary for the financing of the Subproject;
- (d) the obligation of the Beneficiary to: (A) carry out the Subproject with due diligence and efficiency and in accordance with sound technical, engineering, environmental and social safeguard, financial, and managerial practices; and (B) maintain adequate records to reflect, in accordance with sound accounting practices, the operations, resources and expenditures relating to the Subproject;
- (e) the requirement that the goods, works and consultants' services to be financed from the proceeds of the Sub-financing shall be procured in accordance with procedures ensuring efficiency and economy and in accordance with the provisions of Section III of this Schedule, and shall be used exclusively in the carrying out of the Subproject; and
- (f) the right of the BDS Grants Manager, REA (or MOE until its establishment), or ARB Apex Bank, on behalf of the Recipient, to: (i) inspect by itself, or jointly with the World Bank, if the World Bank shall so request, the goods, works, sites, plants and construction included in the Subproject, the operations thereof and any relevant records and documents; (ii) obtain all information as it, or the World Bank, shall reasonably request regarding the administration, operation and financial conditions of the Subproject; and (iii) suspend or terminate the right of the Beneficiary to use the proceeds of the Sub-financing upon failure by the Beneficiary to perform any of its obligations under the Sub-financing Agreement.

5. **Administration of Sub-financing Agreements**

The Recipient shall exercise its rights, and cause the BDS Grants Manager, REA (or MOE until its establishment) and ARB Apex Bank to exercise their rights under the Sub-financing Agreements in such manner as to protect the interests of the Recipient and the World Bank and to accomplish the purposes of the Project, and shall not permit the BDS Grants Manager, REA (or MOE until its establishment) or ARB Apex Bank to assign, amend, abrogate or waive any Sub-financing Agreement or any provision thereof without prior approval in writing by the World Bank.

Section II. Project Monitoring, Reporting and Evaluation

A. Project Reports

1. (a) The Recipient shall monitor and evaluate the progress of the Project and prepare Project Reports in accordance with the provisions of Section 2.06 of the Standard Conditions and on the basis of the indicators set forth below in sub-paragraph (b) of this paragraph. Each Project Report shall cover the period of one calendar quarter, and shall be furnished to the World Bank not later than one month after the end of the period covered by such report.
- (b) The performance indicators referred to above in sub-paragraph (a) consist of the following:
 - (i) annual distribution losses (ECG energy sent out minus energy billed divided by energy sent out);
 - (ii) annual average hours of unplanned distribution line outage per consumer;
 - (iii) national household electrification rate;
 - (iv) tons of CO₂ emissions avoided, calculated over the estimated lifetime of renewable energy equipment installed under the Project;
 - (v) ECG's Performance Verification Index (PVI) ($PVI (\%) = (\text{Total revenue collected in the year} * 100) \text{ divided by } (\text{Total GWh bought in the year} * \text{Annual Average End User Tariff})$);
 - (vi) ECG's annual accounts receivable (excluding MDAs and the Ghana Water and Company Ltd.);
 - (vii) ECG's revenue collection rate (% of sales revenue collected);
 - (viii) the ratio of ECG's revenue over its cost;
 - (ix) number of new consumers connected through grid in Project areas; and
 - (x) number of new consumers connected through renewable energy off-grid.
2. On or about the date thirty (30) months after the Effective Date, the Recipient shall undertake in conjunction with the World Bank, the Co-financiers and the

Project Implementing Entities a comprehensive mid-term review of the Project during which it shall exchange views generally on all matters relating to the progress of the Project, the performance by the Recipient of its obligations under this Agreement, the IDA Financing Agreement and the Co-financing Agreements and the performance by the Project Implementing Entities of their respective obligations under the Project Agreements, having regard to the performance indicators referred to in paragraph 1 (b) of this Part A.

3. The Recipient shall prepare the Completion Report in accordance with the provisions of Section 2.06 of the Standard Conditions. The Completion Report shall be furnished to the World Bank not later than six months after the Closing Date.

B. Financial Management, Financial Reports and Audits

1. The Recipient shall maintain or cause to be maintained a financial management system in accordance with the provisions of Section 2.07 of the Standard Conditions.
2. Without limitation on the provisions of Part A of this Section, the Recipient shall prepare and furnish to the World Bank as part of the Project Report, not later than one month after the end of each calendar quarter, interim unaudited financial reports for the Project covering the quarter, in form and substance satisfactory to the World Bank.
3. The Recipient shall have its Financial Statements audited in accordance with the provisions of Section 2.07 (b) of the Standard Conditions. Each audit of the Financial Statements shall cover the period of one Fiscal Year. The audited Financial Statements for each such period shall be furnished to the World Bank not later than six months after the end of such period.

Section III. Procurement

A. General

1. **Goods and Works.** All goods and works required for the Project and to be financed out of the proceeds of the Grant shall be procured in accordance with the requirements set forth or referred to in Section I of the Procurement Guidelines, and with the provisions of this Section.
2. **Consultants' Services.** All consultants' services required for the Project and to be financed out of the proceeds of the Grant shall be procured in accordance with the requirements set forth or referred to in Sections I and IV of the Consultant Guidelines, and with the provisions of this Section.

3. **Definitions.** The capitalized terms used below in this Section to describe particular procurement methods or methods of review by the World Bank of particular contracts, refer to the corresponding method described in the Procurement Guidelines, or Consultant Guidelines, as the case may be.

B. Particular Methods of Procurement of Goods and Works

1. **International Competitive Bidding.** Except as otherwise provided in paragraph 2 below, goods and works shall be procured under contracts awarded on the basis of International Competitive Bidding.
2. **Other Methods of Procurement of Goods and Works.** The following methods of procurement, other than International Competitive Bidding, may be used for goods and works in the circumstances specified in the Procurement Plan for each such method: (a) Limited International Bidding; (b) National Competitive Bidding, provided that foreign firms shall not be excluded from bidding; (c) Direct Contracting; (d) Shopping; and (e) Established Private or Commercial Practices which have been found acceptable to the World Bank.

C. Particular Methods of Procurement of Consultants' Services

1. **Quality- and Cost-based Selection.** Except as otherwise provided in paragraph 2 below, consultants' services shall be procured under contracts awarded on the basis of Quality- and Cost-based Selection.
2. **Other Methods of Procurement of Consultants' Services.** The following methods of procurement, other than Quality and Cost-based Selection, may be used for consultants' services in the circumstances specified in the Procurement Plan: (a) Quality Based Selection; (b) Selection under a Fixed Budget; (c) Least Cost Selection; (d) Selection based on Consultants' Qualifications; (e) Single-source Selection; (f) Established Private or Commercial Practices which have been found acceptable to the World Bank; (g) Procedures set forth in paragraphs 5.2 and 5.3 of the Consultant Guidelines for the Selection of Individual Consultants; and (h) Sole Source Procedures for the Selection of Individual Consultants.

D. Review by the World Bank of Procurement Decisions

The Procurement Plan shall set forth those contracts which shall be subject to the World Bank's Prior Review. All other contracts shall be subject to Post Review by the World Bank.

Section IV. Withdrawal of the Proceeds of the Grant

A. General

1. The Recipient may withdraw the proceeds of the Grant in accordance with the provisions of Article III of the Standard Conditions, this Section, and such additional instructions as the World Bank shall specify by notice to the Recipient (including the “World Bank Disbursement Guidelines for Projects” dated May 2006, as revised from time to time by the World Bank and as made applicable to this Agreement pursuant to such instructions), to finance Eligible Expenditures as set forth in the table in paragraph 2 below.
2. The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Grant, the allocations of the amounts of the Grant to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category:

Category	Amount of the Grant Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods under Part C.5(d) of the Project	100,000	100%
(2) Consultants’ services under Parts A.1(d), A.3(b) and C.5(b) of the Project	1,800,000	100%
(3) Consultants’ services under Part C.5(d) of the Project	400,000	100%
(4) Training under Part C.5(b) of the Project	200,000	100%
(5) Training under Part C.5(d) of the Project	200,000	100%
(6) BDS Grants under Part C.5(c) of the Project	2,800,000	100% of amounts disbursed
TOTAL AMOUNT	5,500,000	

B. Withdrawal Conditions; Withdrawal Period

1. Notwithstanding the provisions of Part A of this Section, no withdrawal shall be made for:
 - (a) payments made prior to the date of this Agreement; and
 - (b) BDS Grants under Category 6 unless the Recipient has: (i) adopted the BDS Grants Manual, in form and substance satisfactory to the World Bank; and (ii) contracted the BDS Grants Manager with qualifications and terms of reference satisfactory to the World Bank, in accordance with the provisions of Section III of Schedule 3 to the Development Credit Agreement for the Micro, Small and Medium Enterprise Project (Cr. 4139-GH).
2. The Closing Date is November 30, 2012.

Section V. Other Undertakings**A. Appointment of Financial Auditors**

The Recipient shall, and shall cause the Project Implementing Entities to, not later than six months after the Effective Date, appoint the independent auditors referred to in Section 2.07(b) of the Standard Conditions, in accordance with the provisions of Section III of this Schedule.

B. Procurement Audits

1. The Recipient shall, not later than six months after the Effective Date, put in place arrangements, satisfactory to the World Bank, including the appointment of independent procurement auditors in accordance with Section III of Schedule 2 to this Agreement, with qualifications, experience and terms of reference acceptable to the World Bank, for reviewing the procurement of goods, works and consultants' services financed under the Project, including the reviewing of procurement procedures and processes.
2. The Recipient shall, not later than three months after the end of each Fiscal Year or such later date as the World Bank may agree, to furnish to the World Bank an audit report on the procurement of goods, works and consultants' services carried out under the Project, prepared by the said independent procurement auditors.

C. Electricity Tariff Adjustment

The Recipient shall: (i) not later than March 31, 2008, complete the cost of service and tariff study to be carried out under Part A.1 of the Project; (ii) not later than June 30, 2008, adopt an action plan, acceptable to the World Bank, to

achieve full cost recovery electricity tariffs; and (iii) thereafter, implement the actions specified in the said action plan within the timelines specified in the plan.

D. ECG and VRA Reviews and Performance Contracts

1. Not later than March 31, 2008, the Recipient shall complete the technical and operational reviews of ECG and VRA to be carried out under Part A.1 of the Project.
2. Not later than December 31 of each year during the implementation of the Project, commencing not later than December 31, 2008, the Recipient, through MOFEP and MOE, shall enter into performance contracts with ECG and VRA, on terms and conditions acceptable to the World Bank.

E. Bulk Power Supply Contract

Not later than December 31, 2008, the Recipient shall ensure that VRA and ECG enter into a bulk power supply contract for the duration of the Project, on terms and conditions acceptable to the World Bank.

F. ECG Management Support Services

Not later than October 31, 2008, the Recipient cause ECG to appoint consultants, with qualifications and terms of reference acceptable to the World Bank, to provide management support services to ECG.

G. Renewable Energy Law

Not later than December 31, 2008, the Recipient shall submit to Parliament a renewable energy bill.

H. Solar PV Line of Credit

Except as the World Bank shall agree otherwise, the Recipient shall cause ARB Apex Bank to deposit all repayments of the principal amounts of Solar PV Loans extended through the revolving line of credit facility established under Part C.4(a) of the Project, for the purpose of providing additional consumer credits and/or grants for solar PV systems in accordance with the provisions of the Solar PV Financing Manual.

APPENDIX**Definitions**

1. “ACGF” means the Africa Catalytic Growth Fund administered by IDA.
2. “AfDF” means the African Development Fund.
3. “Affected Persons” means persons who, on account of the execution of the Project had or would have their: (i) standard of living adversely affected; or (ii) right, title, interest in any house, land (including premises, agricultural and grazing land) or any other fixed or movable asset acquired or possessed, temporarily or permanently; or (iii) access to productive assets adversely affected, temporarily or permanently; or (iv) business, occupation, work or place of residence or habitat adversely affected.
4. “Annual Work Plan and Budget” means the work plan and budget referred to in Section I.D of Schedule 2 to this Agreement
5. “ARB Apex Bank” means ARB Apex Bank Limited established through incorporation under the Recipient’s Companies Code, 1963 (Act 179).
6. “BDS Grant” means an eligible business development services grant made or to be made out of the proceeds of the Co-financing from the GEF for the purpose of financing Eligible Expenditures required for a BDS Subproject in accordance with the provisions of Section I.F of Schedule 2 to this Agreement.
7. “BDS Grants Manager” means a firm or individuals to be recruited by the Recipient in accordance with the provisions of Section I.3 of Schedule 4 to the Development Credit Agreement for the Micro, Small and Medium Size Enterprise Project (IDA Credit No.4139-GH) to assist the Recipient in managing the BDS Grants.
8. “BDS Grants Manual” means the manual referred to in Section I.C.1(b) of Schedule 2 to this Agreement.
9. “BDS Subproject” means a set of specific activities carried out or to be carried out by a Beneficiary under Part C.5(c) of the Project and financed or to be financed out of the proceeds of the Co-financing from the GEF through a Sub-financing.
10. “Beneficiary” means a public or private sector entity which has received a Sub-financing in accordance with the provisions of Section I.F of Schedule 2 to this Agreement.

11. “Category” means a category set forth in the table in Section IV of Schedule 2 to this Agreement.
12. “Co-financier” means: (i) the AfDF; (ii) Switzerland; (iii) IDA acting as an administrator of the ACGF; and (iv) IDA acting as an administrator of the GPOBA.
13. “Co-financing” means an amount to be provided by each Co-financier to assist in the financing of the Project, as follows: (i) \$18.25 million from the AfDF; (ii) \$11 million from Switzerland; (iii) \$50 million from the ACGF; and (iv) \$6.25 million from the GPOBA.
14. “Co-financing Agreement” means the agreement to be entered into between the Recipient and the relevant Co-financier providing for the Co-financing provided by such Co-financier.
15. “Consultant Guidelines” means the “Guidelines: Selection and Employment of Consultants by World Bank Borrowers” published by the World Bank in May 2004.
16. “EC” means the Recipient’s Energy Commission.
17. “ECG” means the Electricity Company of Ghana Limited.
18. “Effective Date” means the date referred to in Section 5.03 of this Agreement.
19. “Environmental Impact Assessments” or “EIAs” means the assessments of potential environmental and social impacts to be prepared by the Recipient and the Project Implementing Entities for Project activities in accordance with Section I.E.1 (b) of Schedule 2 to this Agreement and the Environmental and Social Safeguard Instruments.
20. “Environmental Management Plans” or “EMPs” means the plans to be prepared by the Recipient and the Project Implementing Entities in accordance with Section I.E.1(b) of Schedule 2 to this Agreement and the Environmental and Social Safeguard Instruments, defining details of measures to manage potential environmental risks and mitigate, reduce and/or offset adverse environmental impacts associated with the implementation of Project activities, together with adequate institutional, monitoring and reporting arrangements capable of ensuring proper implementation of, and regular feedback on compliance with, its terms.
21. “Environmental and Social Safeguard Instruments” means the following instruments, as the said documents may be modified and/or supplemented from time to time with prior approval in writing by the World Bank: (a) the “Protocol for Compliance with World Bank Requirements” prepared by MOE and endorsed by ECG, MOE and VRA in March 2007 to ensure compliance with World Bank

Operational Policies 4.04 Natural Habitats and 4.37 Safety of Dams in the planning, environmental assessment, design and implementation of Project activities; (b) the Environmental Assessment Regulations adopted under Legislative Instrument (L.I.) 1652, promulgated by the Recipient in 1999; (c) the “Environmental Impact Assessment Procedures” issued by EPA in 1995; (d) the “Sector Specific Guidelines for Environmental Impact Assessments” to be adopted by EPA for the energy sector in accordance with Section 5.01 (e) of the IDA Financing Agreement; (e) the “Environmental and Social Policy Framework for Captive Generation and Rural Electrification” of MOE dated March 2007; (f) the “Environmental and Social Policy Framework for Electricity Distribution” of ECG dated March 2007; and (g) the “Policy Framework for Environmental and Social Management of Bulk Transmission Line Projects in Ghana” of VRA dated March 2007.

22. “EPA” means the Recipient’s Environmental Protection Agency.
23. “Fiscal Year” means the Recipient’s fiscal year commencing January 1 and ending December 31 of each year.
24. “GEF” means the Global Environment Facility.
25. “GPOBA” means the Global Partnership on Output Based Aid trust fund administered by IDA.
26. “IDA Financing” means an amount of 59,100,000 SDR equivalent to be provided to the Recipient by IDA to assist in financing the Project.
27. “IDA Financing Agreement” means the agreement of the date same date as this Agreement between the Recipient and IDA, providing for the IDA Financing.
28. “MDAs” means the Recipient’s ministries, departments and agencies.
29. “MOE” means the Recipient’s Ministry of Energy.
30. “MOFEP” means the Recipient’s Ministry of Finance and Economic Planning.
31. “Operational Manuals” or “OMs” means, collectively, the Project Implementation Plans, the BDS Grants Manual, the RE Grants Manual and the Solar PV Financing Manual.
32. “Procurement Guidelines” means the “Guidelines: Procurement under IBRD Loans and IDA Credits” published by the World Bank in May 2004.
33. “Procurement Plan” means the Recipient’s procurement plan for the Project, dated June 1, 2007 and referred to in paragraph 1.16 of the Procurement

Guidelines and paragraph 1.24 of the Consultant Guidelines, as the same shall be updated from time to time in accordance with the provisions of said paragraphs.

34. “Program” means the program set out in the letters from the Recipient to the World Bank dated May 17, 2007 and May 22, 2007, describing a set of objectives, policies and actions for the development of the Recipient’s energy sector, and declaring the Recipient’s commitment to the execution of the Program.
35. “Project Agreement” means the Project Agreement of the same date as the IDA Financing Agreement between the International Development Association and ARB Apex Bank, ECG and VRA, respectively; and “Project Agreements” means, collectively, all such agreements.
36. “Project Implementation Plan” means any of the plans referred to in Section I.C.1(a) of Schedule 2 to this Agreement; and “Project Implementing Plans” means, collectively, all such plans.
37. “Project Implementing Entity” means ARB Apex Bank, ECG or VRA, as the case may be; and “Project Implementing Entities” means, collectively, all such entities.
38. “Project Implementing Entity’s Legislation” means: (a) the Volta River Authority Act, 1961 establishing and governing the operations of VRA, including any legal or regulatory enactments upon which such instrument is based, or any licenses granted to VRA related to the Project, all as in force on the date of this Agreement; (b) the Companies Code, 1963 (Act 179) Regulations of the Electricity Company of Ghana Limited, including any legal or regulatory enactments upon which such instrument is based, or any licenses granted to ECG related to the Project, all as in force on the date of this Agreement; or (c) the ARB Apex Bank Limited Regulations, 2006 (L.I. 1825), including any legal or regulatory enactments upon which such instrument is based, or any licenses granted to ARB Apex Bank related to the Project, all as in force on the date of this Agreement.
39. “Project Steering Committee” means the committee referred to in Section I.B.1 of Schedule 2 to this Agreement.
40. “PURC” means the Recipient’s Public Utilities Regulatory Commission.
41. “REA” means the Rural Electrification Agency to be established by the Recipient in accordance with Section I.B.3 of Schedule 2 to this Agreement.
42. “RE Grant” means a grant made or to be made out of the proceeds of the Financing or the Co-financings from the ACGF or Switzerland, as the case may

be, for the purpose of financing Eligible Expenditures required for a RE Subproject in accordance with the provisions of Section I.F of Schedule 2 to this Agreement.

43. “RE Grants Manual” means the manual referred to in Section I.C.1(c) of Schedule 2 to this Agreement.
44. “Resettlement Action Plans” or “RAPs” means the resettlement action plans to be prepared by the Recipient and the Project Implementing Entities in accordance with Section I.E.1(a) of Schedule 2 to this Agreement and the RPF, containing, *inter alia*, a program of actions, measures and policies for compensation and resettlement of Affected Persons, including the magnitude of displacement, compensation and resettlement arrangements, budget and cost estimates, and sources of funding, together with adequate institutional, monitoring and reporting arrangements capable of ensuring proper implementation of, and regular feedback on compliance with its terms.
45. “Resettlement Policy Framework” or “RPF” means the framework of the Recipient dated February 2007 and revised in May 2007, as the said framework may be amended and/or supplemented from time to time with prior approval in writing by the World Bank, setting forth resettlement procedures, institutional arrangements, eligibility criteria, entitlements and compensation, including valuation procedures, budget, public consultation and participation, monitoring and evaluation and disclosure.
46. “RE Subproject” means a set of specific activities carried out or to be carried out by a Beneficiary under Parts C.2 or C3 of the Project and financed or to be financed out of the proceeds of the Financing or the Co-financings from the ACGF or Switzerland, as the case may be, through a Sub-financing.
47. “Rural Electrification Fund” or “REF” means the Rural Electrification Fund to be established and operated under Parts C.2 and C.3 of the Project in accordance with Section I.B.3 of Schedule 2 to this Agreement.
48. “Solar PV” means solar photovoltaic systems to be installed and operated in rural areas under Part C.4 of the Project.
49. “Solar PV Financing Manual” means the manual referred to in Section I.C.1 (d) of Schedule 2 to this Agreement.
50. “Solar PV Grant” means a grant made or to be made out of the proceeds of the Co-financing from the GPOBA for the purpose of financing Eligible Expenditures required for a Solar PV Subproject in accordance with the provisions of Section I.F of Schedule 2 to this Agreement.

51. “Solar PV Loan” means a loan made or to be made out of the proceeds of the Financing for the purpose of financing Eligible Expenditures required for a Solar PV Subproject in accordance with the provisions of Section I.F of Schedule 2 to this Agreement.
52. “Solar PV Subproject” means a set of specific activities carried out or to be carried out by a Beneficiary under Part C.4 of the Project and financed or to be financed out of the proceeds of the Financing or the Co-financing from the GPOBA, as the case may be, through a Sub-financing.
53. “Standard Conditions” means the “Standard Conditions for Grants Made by the World Bank Out of Various Funds”, dated July 20, 2006.
54. “Sub-financing” means a BDS Grant, an RE Grant, a Solar PV Grant, or a Solar PV Loan; and “Sub-financings” means, collectively, all such grants and loans.
55. “Sub-financing Agreement” means an agreement concluded or to be concluded between, on the one part, ARB Apex Bank, the BDS Grants Manager or REA (or MOE until its establishment), as the case may be, on behalf of the Recipient, and on the other part, a Beneficiary, for the purpose of extending a Sub-financing to such Beneficiary on the terms and conditions set forth or referred to in Section I.F.4 of Schedule 2 to this Agreement.
56. “Subproject” means a BDS Subproject, an REF Subproject, or a Solar PV Subproject; and “Subprojects” means, collectively, all such subprojects.
57. “Subsidiary Agreements” means the agreements referred to in Section I.A of Schedule 2 to this Agreement pursuant to which the Recipient shall make part of the proceeds of the Grant, the IDA Financing and the Co-financings from the ACGF and GPOBA available to the Project Implementing Entities.
58. “Training” means the costs associated with the training and workshop participation of personnel involved in Project supported activities including travel and subsistence costs for training and workshop participants, costs associated with securing the services of trainers and workshop speakers, rental of training and workshop facilities, preparation and reproduction of training and workshop materials, and other costs directly related to training course and workshop preparation and implementation.
59. “VRA” means the Volta River Authority.