

The World Bank

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

1818 H Street N.W.
Washington, D.C. 20433
U.S.A.

(202) 477-1234
Cable Address: INTBAFRAD
Cable Address: INDEVAS

CONFORMED COPY

November 12, 2010

Professor William Otoo Ellis
Vice-Chancellor
Kwame Nkrumah University of Science and Technology (KNUST)
Private Mail Bag, University Post Office, KNUST
Kumasi, Ghana

Re: Republic of Ghana – Capacity Upgrading for West African
Partners in Renewable Energy Education Project (REEP)
Kwame Nkrumah University of Science and Technology (KNUST)
Grant No. TF096613

Dear Sir:

In response to the request for financial assistance made on behalf of The Energy Center in the College of Engineering at the Kwame Nkrumah University of Science and Technology (KNUST) (the “Recipient”), I am pleased to inform you that the International Development Association (“World Bank”), acting as administrator of grant funds provided under the Clean Energy Investment Framework Multi Donor Trust Fund, proposes to extend to the Recipient for the benefit of the Republic of Ghana (“Member Country”), a grant in an amount not to exceed five hundred twenty three thousand United States Dollars (U.S.\$523,000) (“Grant”) on the terms and conditions set forth or referred to in this letter agreement (“Agreement”), which includes the attached Annex, to assist in the financing of the project described in the Annex (“Project”). This Grant is funded out of the abovementioned trust fund for which the World Bank receives periodic contributions. In accordance with Section 3.02 of the Standard Conditions (as defined in the Annex to this Agreement), the Recipient may withdraw the Grant proceeds subject to the availability of such funds.

The Recipient represents, by confirming its agreement below, that it is authorized to enter into this Agreement and to carry out the Project in accordance with the terms and conditions set forth or referred to in this Agreement.

Please confirm the Recipient's agreement to the foregoing by having an authorized official of the Recipient sign and date the enclosed copy of this Agreement, and returning it to the World Bank. Upon receipt by the World Bank of this countersigned copy, this Agreement shall become effective as of the date of the countersignature.

Very truly yours,
INTERNATIONAL DEVELOPMENT ASSOCIATION

/s/ Ishac Diwan
By _____
Ishac Diwan
Country Director for Ghana
Africa Region

AGREED:

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KNUST)

/s/ Professor William Otoo Ellis
By _____
Authorized Representative

Name: Professor William Otoo Ellis

Title: Vice-Chancellor, KNUST

Date: 22nd November 2010

Enclosures:

- (1) "Standard Conditions for Grants Made by the World Bank Out of Various Funds", dated July 31, 2010
- (2) Disbursement Letter dated _____, together with "World Bank Disbursement Guidelines for Projects", dated May 1, 2006

Article I

Standard Conditions; Definitions

1.01. *Standard Conditions.* The “Standard Conditions for Grants Made by the World Bank out of Various Funds” dated July 31, 2010 (“Standard Conditions”) constitute an integral part of this Agreement.

1.02. *Definitions.* Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the Standard Conditions or in this Agreement and the following terms have the following meaning:

- (a) “2iE” or “International Institute for Water and Environmental Engineering” is an institution of higher education and research based in Ouagadougou, Burkina Faso. It is an international public-private partnership involving several African states; private firms; academic, technical, and scientific bodies; and technical institutions.
- (b) “CSP” or “Concentrating Solar Power” is an energy technology that uses lenses or mirrors to focus a large area of sunlight onto a small area.
- (c) “ECOWAS” or “Economic Community of West African States” is a regional group of fifteen West African countries, whose mission is to promote economic integration.
- (d) “EMP” or “Environmental Management Plan” means the Recipient’s environmental management plan, dated September 30, 2010, which: (i) addresses the concerns relating to the Project risks associated with hazardous or toxic materials released during photovoltaic installations under the Project; and (ii) sets forth mitigation and monitoring measures to be taken by the Recipient during Project implementation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.
- (e) “ERC” or “ECOWAS Regional Centre for Renewable Energy and Energy Efficiency” means a specialized agency of the ECOWAS Commission which aims to help develop the renewable energy potential for West Africa.
- (f) “NGO” or “Non Governmental Organization” means a non-governmental organization duly authorized to operate in the Member Country’s territory in accordance with the relevant laws of the Member Country.
- (g) “TEC” or “The Energy Center” is a multidisciplinary energy research center at KNUST.
- (h) “WAPP” or “West Africa Power Pool” is an organization which addresses the issue of power supply deficiency within West Africa.

Article II

Project Execution

2.01. ***Project Objectives and Description.*** The objective of the Project is to upgrade the capabilities of the Recipient to plan, deliver and evaluate “hands-on” training to transfer know-how on renewable energy technology assessment and project implementation to its clients. The ultimate aim is to enable the Recipient to become one of the capacity-building nodes for the ERC which is based in Cape Verde.

The Project consists of the following parts:

Part 1: Hands-on Training

Delivery of training to a target group of practicing engineers and technicians consisting of:

(i) design and installation of one roof-mounted 20 kWp solar PV grid-connected systems in the Recipient’s premises; and

(ii) carrying out technical performance measurements and data analysis of the solar PV grid-connected systems installed in Part 1 (i) above.

Part 2: Learning by Analysis

Carry out an assessment of the economic and financial viability of deploying medium-scale CSP in the ECOWAS sub-region, particularly in the Sahelian countries of Burkina Faso, Niger and Mali in collaboration with a target group of practicing engineers and policy makers affiliated with WAPP.

Part 3: Learning by Sharing

Organization of knowledge-networking activities across Africa on energy policy, solar energy technology, dissemination strategies through theme-based, web-enabled real time seminars and learning and knowledge sessions bringing together African energy experts from Universities, NGO’s, government agencies, centers of energy research and development, energy businesses.

2.02. ***Project Execution Generally.*** a) The Recipient declares its commitment to the objectives of the Project. To this end, the Recipient shall carry out the Project in accordance with the provisions of: (a) Article II of the Standard Conditions; (b) the “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006 (“Anti-Corruption Guidelines”), with the modifications set forth in Section I of the Appendix to this Agreement; and (c) this Article II.

b) For the purpose of ensuring that the Project fully meets its objectives, the Recipient shall work in close collaboration with 2iE with regular communications including periodic face-to-face interactions in the implementation of all aspects of the project, notably the hands-on training as well as the learning by analysis and learning by sharing activities.

c) The Recipient shall follow and apply at all times in the implementation of the Project the provisions of the Environmental Management Plan in a timely manner, ensuring that: (i) mitigation and monitoring measures acceptable to the Association are designed and implemented with due diligence and employing appropriate environmental expertise; and (ii) adequate information on the implementation of the measures contained in the EMP is appropriately included in the Progress Reports referred to in Section 2.03 (a) below.

2.03. ***Project Monitoring, Reporting and Evaluation.*** (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 paragraph (b) of this Section. Each Project Report shall cover the period of one academic semester, and shall be furnished to the World Bank not later than 45 days after the end of the period covered by such report.

(b) The performance indicators referred to above in paragraph (a) consist of the following:

(i) Guidelines established for solar power generation projects in the ECOWAS sub-region.

(ii) 100 sub regional/regional participants trained in PV system design, installation and management. Of this number 20 will be trained from other learning institutions to serve as trainers. A quarter of the modules in the REEP Distance Learning Masters Program will be re-packaged in partnership with National Energy Institutes as a series of professional learning courses for upgrading the capacity of their staff.

(iii) A number of weather stations installed for the Recipient; and meteorological data collected and assessed.

(iv) Two stakeholder workshops on project outputs/findings and implications for solar power and recommendations made to ECOWAS on solar energy resource utilization in electric power generation and capacity development.

(v) Two journal articles, 10 power-point presentations and 3 workshop/conference reports prepared and made available through already existing internet-based platforms at TEC for document sharing and downloading.

(c) 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.

2.04. ***Financial Management*** (a) The Recipient shall ensure that a financial management system is maintained in accordance with the provisions of Section 2.07 of the Standard Conditions.

(b) The Recipient shall ensure that interim unaudited financial reports for the Project are prepared and furnished to the World Bank as part of the Project Report not later than 45 days after the end of each academic semester, covering the semester, in form and substance satisfactory to the World Bank.

(c) The Recipient shall have its Financial Statements audited in accordance with the provisions of Section 2.07 (b) of the Standard Conditions. Each such audit of the Financial Statements shall cover the period of one fiscal year of the Recipient. 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.

2.05. *Procurement*

(a) General. All goods, works and 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:

(i) Section I of the “Guidelines: Procurement under IBRD Loans and IDA Credits” published by the World Bank in May 2004 and revised in October 2006 and May 2010 (“Procurement Guidelines”), in the case of goods and works; and

(ii) Sections I and IV of the “Guidelines: Selection and Employment of Consultants by World Bank Borrowers” published by the World Bank in May 2004 and revised in October 2006 and May 2010 (“Consultant Guidelines”) in the case of consultants’ services; and

(iii) the provisions of this Section, as the same shall be elaborated in the procurement plan prepared and updated from time to time by the Recipient for the Project in accordance with paragraph 1.16 of the Procurement Guidelines and paragraph 1.24 of the Consultant Guidelines (“Procurement Plan”).

(b) Definitions. The capitalized terms used in the following paragraphs of 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 the Consultant Guidelines, as the case may be.

(c) Particular Methods of Procurement of Goods and Works

Goods and works shall be procured under contracts awarded on the basis of Limited International Competitive Bidding and Shopping.

(d) Particular Methods of Procurement of Consultants’ Services

(i) Except as otherwise provided in item (ii) below, consultants’ services shall be procured under contracts awarded on the basis of Quality- and Cost-based Selection.

(ii) The following methods may be used for the procurement of consultants’ services for those assignments which are specified in the Procurement Plan: (A) Selection under a Fixed Budget; (B) Selection based on Consultants’ Qualifications; (C) Single-source Selection; and (D) Selection of Individual Consultants.

(e) 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.

**Article III
Withdrawal of Grant Proceeds**

3.01. **Eligible Expenditures.** The Recipient may withdraw the proceeds of the Grant in accordance with the provisions of: (a) the Standard Conditions; (b) this Section; and (c) such additional instructions as the World Bank may 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 following table. The table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Grant (“Category”), 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, works and consultants’ services under the Project	210,000	100%
(2) Training and workshops	156,000	100%
(3) Operating costs	157,000	100%
TOTAL AMOUNT	523,000	

For the purpose of this Section the following terms have the following meanings:

(a) “Training and workshops” means the costs associated with meetings, seminars and training sessions, including travel and subsistence costs for participants, costs associated with securing the services of trainers and seminar speakers, rental of facilities, preparation and reproduction of training and seminar materials, and other costs directly related to meetings, seminars and training preparation and implementation;

(b) “Operating costs” means the incremental expenditures incurred on account of the Project implementation including, *inter alia*, office supplies, office equipment, transportation, office administration, insurance, communication and outreach, travel, per diem and salaries and benefits of staff but excluding salaries of officials of Government’s civil service.

3.02. **Withdrawal Conditions.** Notwithstanding the provisions of Section 3.01 of this Agreement, no withdrawal shall be made for payments made prior to the date of countersignature of this Agreement by the Recipient.

3.03. **Withdrawal Period.** The Closing Date referred to in Section 3.06 (c) of the Standard Conditions is September 30, 2012.

Article IV Recipient's Representative; Addresses

4.02. **Recipient's Representative.** The Recipient's Representative referred to in Section 7.02 of the Standard Conditions is the Vice-Chancellor, KNUST.

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

Vice-Chancellor's Office
Kwame Nkrumah University of Science and Technology (KNUST)
Private Mail Bag, University Post Office, KNUST
Kumasi, Ghana

Email:	Telephone:	Facsimile:
vc@knust.edu.gh	+233 322 060 334	+233 322 060 137

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

International Development Association
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

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

APPENDIX

Modifications to the Anti-Corruption Guidelines

Section I. The modifications to the Anti-Corruption Guidelines are as follows:

1. Section 5 is re-numbered as Section 5(a) and a new Section 5(b) is added to read as follows:

“...(b) These Guidelines also provide for the sanctions and related actions to be imposed by the Bank on Borrowers (other than the Member Country) and all other individuals or entities who are recipients of Loan proceeds, in the event that the Borrower or the individual or entity has been debarred by another financier as a result of a determination by such financier that the Borrower or the individual or entity has engaged in fraudulent, corrupt, coercive or collusive practices in connection with the use of the proceeds of a financing made by such financier.”

2. Section 11(a) is modified to read as follows:

“... (a) sanction in accordance with prevailing Bank’s sanctions policies and procedures (fn13) a Borrower (other than a Member Country) (fn 14) or an individual or entity, including (but not limited to) declaring such Borrower, individual or entity ineligible publicly, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; (ii) to benefit from a Bank-financed contract, financially or otherwise, for example as a sub-contractor; and (iii) to otherwise participate in the preparation or implementation of the project or any other project financed, in whole or in part, by the Bank, if at any time the Bank determines (fn 15) that such Borrower, individual or entity has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in connection with the use of loan proceeds, or if another financier with which the Bank has entered into an agreement for the mutual enforcement of debarment decisions has declared such person or entity ineligible to receive proceeds of financings made by such financier or otherwise to participate in the preparation or implementation of any project financed in whole or in part by such financier as a result of a determination by such financier that the Borrower or the individual or entity has engaged in fraudulent, corrupt, coercive or collusive practices in connection with the use of the proceeds of a financing made by such financier.”

Footnotes:

“13. An individual or entity may be declared ineligible to be awarded a Bank financed contract upon completion of sanctions proceedings pursuant to the Bank’s sanctions policies and procedures, or under the procedures of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding, or following a sanction by another financier with whom the Bank has entered into a cross debarment agreement, as a result of a determination by such financier that the firm or individual has engaged in fraudulent, corrupt, coercive or collusive practices in connection with the use of the proceeds of a financing made by such financier.”

“14. Member Country includes officials and employees of the national government or of any of its political or administrative subdivisions, and government owned enterprises and agencies that are not eligible to bid under paragraph 1.8(b) of the Procurement Guidelines or participate under paragraph 1.11(c) of the Consultant Guidelines.”

“15. The Bank has established a Sanctions Board, and related procedures, for the purpose of making such determinations. The procedures of the Sanctions Board sets forth the full set of sanctions available to the Bank. In addition, the Bank has adopted an internal protocol outlining the process to be followed in implementing debarments by other financiers, and explaining how cross-debarments will be posted on the Bank’s website and otherwise be made known to staff and other stakeholders.”