

Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No: 52695-TZ

PROJECT PAPER

ON A

PROPOSED CREDIT
IN THE AMOUNT OF SDR 16.1 MILLION
(US\$25 MILLION EQUIVALENT)

TO

THE UNITED REPUBLIC OF TANZANIA

FOR AN

ADDITIONAL FINANCING TO THE
ENERGY DEVELOPMENT AND ACCESS EXPANSION PROJECT

March 4, 2010

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

CURRENCY EQUIVALENTS

(Exchange Rate Effective as of January 29, 2010)

Currency Unit = Tanzania Shillings (TZS)
TZS 1,339.5 = USD1
US\$ 1.55419 = SDR 1

FISCAL YEAR
July 1 — June 30

ABBREVIATIONS AND ACRONYMS

AFREA	Africa Renewable Energy and Access
ASPEN	Africa Safeguard Policies Enhancement
BOT	Bank of Tanzania
CMSA	Capital Market and Securities Authority
CO ²	Carbon Dioxide
DSE	Dar es Salaam Stock Exchange
EIA	Environmental Impact Assessment
EIRR	Economic Internal Rate of Return
ENPV	Economic net present value
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
EWURA	Energy and Water Utilities Regulatory Authority
FBS	Fixed Budget Selection
FIRR	Financial Internal Rate of Return
FM	Financial Management
FNPV	Financial Net Present Value
FRP	Financial Recovery Plan
FY	Fiscal Year
GDP	Gross Domestic Product
GEF	Global Environment Facility
IBRD	International Bank for Reconstruction and Development
IC	Individual Consultant
ICB	International Competitive Bidding
IDA	International Development Association
IFC	International Finance Corporation
IFR	Interim Financial Report
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IRR	Internal Rate of Return
kWh	Kilowatt Hour
LCS	Least Cost Selection
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MEM	Ministry of Energy and Minerals
MOFEA	Ministry of Finance and Economic Affairs

FOR OFFICIAL USE ONLY

MKUKUTA	Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania (Tanzania National Strategy for Growth and Reduction of Poverty)
MW	Megawatt
NCB	National Competitive Bidding
NGOs	Non-Governmental Organization
NORAD	Norwegian Agency for Development Cooperation
OG	Operating Guidelines
OP	Operational Policy
O&M	Operations and Maintenance
PDO	Project Development Objective
PFI	Participating Financial Institution
PMU	Procurement Management Unit
PV	Photovoltaic
QCBS	Quality and Cost Based Selection
QBS	Quality-Based Selection
RAP	Resettlement Action Plan
REA	Rural Energy Agency
RET	Renewable Energy Technologies
RFP	Request for Proposals
RPF	Resettlement Policy Framework
SIDA	Swedish International Development Cooperation Agency
SIL	Specific Investment Loan
SME	Small and Medium Enterprises
SPP	Small Power Projects or Small Power Plants
SPPA	Standardized Small Power Purchase Agreement
SPPT	Standardized Small Power Purchase Tariff
SSA	Sub-Saharan Africa
SSMP	Sustainable Solar Market Packages
SSS	Single-Source Selection
TA	Technical Assistance
TANESCO	Tanzania Electric Supply Company Limited
TEDAP	Tanzania Energy Development and Access Expansion Project
TIB	Tanzania Investment Bank Limited
TZS	Tanzania Shillings
UNDB	United Nations Development Business
WBG	World Bank Group

Vice President:	Obiageli Katryn Ezekwesili
Country Director:	John Murray McIntire
Sector Manager:	Subramaniam V. Iyer
Task Team Leader:	Dana Rysankova

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not be otherwise disclosed without World Bank authorization.

TANZANIA
Additional Financing - Energy Development and Access Expansion Project

TABLE OF CONTENTS

I.	INTRODUCTORY STATEMENT	1
II.	BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING	1
	A. Background.....	1
	B. Status of Ongoing Project.....	2
	C. Rationale for Additional Financing	3
III.	PROPOSED PROJECT CHANGES	3
	A. Objectives	4
	B. Components.....	4
	C. Implementation arrangements	4
	D. Key Indicators and Results Framework.....	6
	E. Closing date	6
	F. Condition of Effectiveness and Legal Covenants.....	6
	G. Readiness of Activities for Additional Financing	6
IV.	CONSISTENCY WITH THE COUNTRY ASSISTANCE STRATEGY (CAS)	6
V.	APPRAISAL OF RESTRUCTURED / SCALED-UP PROJECT	7
VI.	EXPECTED OUTCOME, BENEFITS AND RISKS	9
VII.	FINANCIAL TERMS AND CONDITIONS	9
	Annex 1: Detailed Description of Project Components	10
	Annex 2: Results Framework and Monitoring-Component B	15
	Annex 3: Summary of Estimated Project Costs	19
	Annex 4: Implementation Arrangements	20
	Annex 5: Financial Management and Disbursement Arrangements	23
	Annex 6: Procurement Arrangements	27
	Annex 7: Environmental and Social Safeguards Framework	30
	Annex 8: Economic and Financial Analysis	31
	Annex 9: O.P. 8.30 Review	35
	Annex 10: Long-term financial sustainability of TANESCO	42

Table 1: Key Project data and implementation progress	2
Table 2: Key design alternatives considered and rejected.....	12
Table 3: Other grant resources.....	13
Table 4: Results Framework.....	15
Table 5: Arrangements for Results Monitoring.....	16
Table 6: Original and Revised IDA allocation (US\$ million).....	19
Table 7: Proposed mitigation measures.....	27
Table 8: Thresholds for Procurement Methods and Prior Review	28
Table 9: Financial Analysis Summary Results - Prospective TEDAP credit line.....	32
Table 10: Economic Analysis Results	34
Figure 1: Implementation arrangements.....	22
Figure 2: Flow of Funds Chart	25
Figure 3: Tanzania and Sub-Saharan Africa - Macroeconomic Performance.....	36
Figure 4: Benchmark Historic Volatility	40

TANZANIA

ADDITIONAL FINANCING - ENERGY DEVELOPMENT AND ACCESS EXPANSION
PROJECT

PROJECT PAPER

Basic Information (Original Project)			
Project ID: P101645	Project Name: Energy Development & Access Expansion		
Team Leader: Robert Schlotterer	Expected Closing Date: March 31, 2012		
Environmental category: Partial Assessment	Lending Instrument: Specific Investment Loan		
Basic Information (Additional Financing)			
Date: March 4, 2010	Team Leader: Dana Rysankova		
Country Director: John Murray McIntire	Sectors: Renewable energy (60%); Power (20%); General energy sector (20%)		
Sector Manager: Subramaniam V. Iyer	Themes: Rural services and infrastructure (75%); Other urban development (25%)		
Project ID: P117260	Environmental category: Partial Assessment (Transferred)		
Lending Instrument: Financial Intermediary Loan	Additional Financing Type: Financing the gap/Scale Up/Restructuring		
Project Financing Data			
<input type="checkbox"/> Loan <input checked="" type="checkbox"/> Credit <input type="checkbox"/> Grant <input type="checkbox"/> Guarantee <input type="checkbox"/> Other:			
For Loans/Credits/Others: (US\$m): 25.00 million			
Total Bank financing (US\$m.): 25.00			
Proposed terms: Standard terms: 40 years maturity, with 10 years grace period.			
Financing Plan (US\$m)			
Source	Local	Foreign	Total
BORROWER/RECIPIENT	0.00	0.00	0.00
International Development Association (IDA)	12.00	13.00	25.00
Total:	12.00	13.00	25.00
Borrower: Ministry of Finance and Economic Affairs on behalf of the United Republic of Tanzania P.O. Box 9111 Dar es Salaam, Tanzania			
Responsible Agency: Rural Energy Agency Sam Nujoma Road, Ubungo P. O. Box 7990 Dar es Salaam, Tanzania			

Estimated disbursements (Bank FY/US\$m)						
FY	2010	2011	2012	2013	2014	2015
Annual	0	5	6	6	5	3
Cumulative	0	5	11	17	22	25
Project implementation period: Start: March 30, 2010 End: March 31, 2015 Expected effectiveness date: May 1, 2010 Expected closing date: March 31, 2015						
Does the project require any exceptions from Bank policies?				[]Yes [X]No		
Have these been approved by Bank management?				[]Yes [] No		
Does the project include any critical risks rated “substantial” or “high”?				[X]Yes []No		
<p>Project Development Objective: The project development objective is slightly reformulated to highlight project’s enhanced focus on renewable energy development. The Project Development Objective is to improve the quality and efficiency of the electricity service provision in the main three growth centers of Dar es Salaam, Arusha, and Kilimanjaro and to establish a sustainable basis for energy access expansion <i>and renewable energy development in Tanzania</i>.</p> <p>The project’s global environmental objective is to abate greenhouse gas emissions through the use of renewable energy in rural areas to provide electricity.</p>						
<p>Project description:</p> <p>The Additional Financing will amend Component B – Off-grid Component - of the Project. Component B will be renamed to Small Power Project Component. Sub-component B1 - Small Power Generation and Distribution - will be modified to: (i) expand the original Project’s matching grant window to include technical assistance to the PFIs for capacity building for the development of their renewable energy lending portfolio, and (ii) introduce a low-cost distribution pilot to develop new techniques and implementation approaches aimed at reducing the costs of distribution networks. A sub-component B.4 Rural / Renewable Energy Credit Line would be added. The credit line would provide long-term funding (up to 15 years) to eligible PFIs in local currency to on-lend to eligible rural/renewable energy projects.</p> <p>Component A – Grid Component and C – Technical Assistance will not be affected.</p>						
<p>Which safeguard policies are triggered, if any?</p> <p>Safeguards policies triggered by the original Project: Environmental Assessment (OP/BP 4.01); Natural Habitats (OP/BP 4.04); Physical Cultural Resources (OP/BP 4.11); Involuntary Resettlement (OP/BP 4.12), and Projects on International Waterways (OP/BP 7.50). The Additional Financing is not expected to trigger any additional safeguards policies.</p>						
<p>Significant, non-standard conditions, if any, for <u>Ref. PP. III F.</u> <u>Board presentation:</u> None.</p>						

Credit effectiveness:

The Project Service Agreement under this Project has been executed between the Recipient and Tanzania Investment Bank; and

The adoption of addendum to the Operating Guidelines in a form and substance satisfactory to the Association.

Dated covenants:

The government will establish a Steering Committee by June 30, 2010, and

Tanzania Investment Bank will update its financial regulations manual within six months of the effectiveness date.

I. INTRODUCTORY STATEMENT

1. This Project Paper seeks approval from the Executive Directors to provide an additional Credit for US\$25 million for the Tanzania Energy Development and Access Expansion Project. (TEDAP P101645; Credit Number 4370-TA). Additional Financing was requested by the Government of Tanzania in a letter from the Ministry of Finance and Economic Affairs dated June 15, 2009.
2. Additional Financing would be used to: (i) complete original Project activities by filling an unanticipated financing gap, and (ii) implement additional activities that scale up Project impact and development effectiveness. In particular, Additional Financing would establish a credit line for rural and renewable energy, which will contribute to achieving and scaling up Project targets for renewable energy generation. Additional Financing will entail minor restructuring of Project sub-components and implementation arrangements and extending the Project closing date by three years. The wording of Project Development Objectives (PDO) and Outcome Indicators will slightly be modified.
3. The credit line would be implemented through financial intermediaries, in compliance with Bank policy OP 8.30 on Financial Intermediary Lending.

II. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING

A. Background

4. *The Tanzania Energy Development and Access Expansion Project (TEDAP)* for US\$105 million (International Development Association - IDA), and US\$6.5 million (Global Environment Facility - GEF) was approved on December 13, 2007 in the aftermath of one of the most serious energy crises in the country. The crisis exposed hydro-dominated generation systems' underlying vulnerability to drought and the need to diversify generation, and accentuated the urgent need for investments in transmission and distribution networks to improve reliability of supply.¹ The crisis also highlighted the need for alternative electrification solutions for rural areas unserved by the national utility, and home to the majority of Tanzanians.² Project appraisal had revealed that Tanzania has abundant but largely untapped renewable energy resources, including small hydro, wind, solar, and biomass, which could be harnessed for power generation and access expansion.

5. The TEDAP *Project Development Objective* is to improve quality and efficiency of electricity service provision in the main three growth centers of Dar es Salaam, Arusha, and Kilimanjaro, and to establish a sustainable basis for energy access expansion. The Project Global Environmental Objective is to abate greenhouse gas emissions through the use of renewable energy in rural areas to provide electricity. TEDAP comprises three components: (A) grid; (B) off-grid; and (C) technical assistance.

¹ The recent World Bank Africa Infrastructure Diagnostic study (2009) estimates that load shedding and emergency generation cost Tanzania over five percent of annual GDP.

² Tanzania's electrification rate of 14 percent is among the lowest in SSA. Rural electrification rate is under 2.0 percent.

6. *Additional Financing relates only to the off-grid Component (B)*, co-financed by IDA (US\$16 million) and GEF (US\$6.5 million). Currently, this component is supporting an institutional set-up for the new Rural Energy Agency (REA) and developing and testing new off-grid electrification approaches for future scale-up.

7. TEDAP’s original off-grid Component has three sub-Components: B.1 Small Power Generation and Distribution, including renewable power generation and mini-grids; B.2 Sustainable Solar Market Development, supplying solar photovoltaic (PV) systems for public institutions and for individual rural households and businesses, and B.3 Technical Assistance to REA and other stakeholders.

8. These activities are implemented through providing: (a) *performance grants* to the private sector, including non-governmental organizations (NGOs) and cooperatives, to partially offset investment costs for new service connections; (b) *matching grants* for pre-investment studies, business and market development, and (c) *goods, works and services* for Sustainable Solar Market Packages and Technical Assistance, and related operating expenses.

B. Status of Ongoing Project

9. Since Project effectiveness in March 2008, TEDAP development objectives and implementation progress have been consistently rated Satisfactory; the Project is in compliance with all safeguards and legal covenants.

Table 1: Key Project data and implementation progress

Key Project Data	Implementation Progress
IDA approval date: December 13, 2007	Development Objectives: Satisfactory
Effectiveness date: March 31, 2008	Implementation Progress: Satisfactory
Closing date: March 31, 2012	Risk flags: None
Credit disbursed: US\$16.907 million of US\$105 million (February 11, 2009)	

10. TEDAP’s off-grid component, in particular, has yielded significant positive results. The Project-supported REA provided the first two grants for renewable energy mini-grids for 1,743 new connections, and awarded the first three Sustainable Solar Market Packages to provide solar electrification for 217 public institutions and 8,000 households and small businesses in remote rural areas. The new connection pipeline totals about 18,000.

11. The Project has helped develop a comprehensive regulatory framework supporting small renewable energy projects, which was formally adopted by the Energy and Water Utilities Regulatory Authority (EWURA), and is considered among good practices in the region. The framework includes standardized small power purchase agreements (SPPA) and tariffs (SPPT) for small power projects (SPPs), simplified regulations for SPPs and comprehensive guidelines for project developers. The first four SPPAs have been signed for 16MW and projects are under construction or are already generating power. In addition, REA completed numerous consultative meetings and training activities for local SPPs (including for carbon finance).

12. As a result of these activities, the local private sector has initiated an impressive number of rural and renewable energy projects. Out of eighty potential projects identified, REA considers 22 a priority and design studies for them are completed or underway, confirming their technical

and economic viability. These projects' total capacity is 78MW, well above TEDAP appraisal expectations of 17MW.

C. Rationale for Additional Financing

13. *Financing gap.* Despite these many positive indicators and outcomes, PDO could be at risk unless local private sector entities are able to access long-term credit. The proposed credit line would fill the gap in the current Tanzanian financial sector by providing local banks with long-term loans to finance small rural and renewable energy projects. Typically, renewable energy projects require longer-term funding (e.g. 15 year loans) due to their relatively high upfront investment costs and longer construction period. These are subsequently offset by lower operations and maintenance (O&M) costs, and gradual, but steady revenue stream.

14. During TEDAP appraisal, local banks indicated willingness to finance a few pilot renewable energy projects. The refinancing risk was considered acceptable if exposure was limited, given the sizable liquidity in local commercial markets at that time. Since then, recent supervision missions have found that banks' ability to lend longer-term is severely curtailed by effects of the global financial crisis, and under these changed circumstances, the appraisal estimate of some US\$27.1 million of private financing available for SPPs is now unlikely to materialize on their own. The credit line is needed to complement and leverage this private sector investment in order to achieve the Project target of 17MW of renewable energy.

15. *Scaling-up.* TEDAP's early implementation activities have resulted in a much stronger response from the Tanzanian private sector than anticipated at appraisal of the original Project. The portfolio of potential projects now exceeds 70MW. All necessary preconditions are in place for a successful private sector-driven renewable energy program (e.g., comprehensive policy and regulatory frameworks, supportive institutional structure, efficient connection subsidies, pre-investment support, and confirmed project pipeline). Therefore, the proposed credit line provides an opportunity for scaling up the TEDAP renewable energy intervention from a pilot to a long-term program.

16. The proposed credit line will complement the existing TEDAP grant window, which provides *performance grants* for electricity connections in rural areas that target investments with social character that merit subsidies. These *performance grants* buy down investment costs of rural electrification projects, allowing the remaining investment share to be developed commercially. The credit line will target these commercial investments.

III. PROPOSED PROJECT CHANGES

17. The proposed Additional Financing would amend Component B by adding the credit line as a new sub-Component B.4, and introducing minor revisions in the sub-Component B.1 (adding a new activity and new beneficiary). New institutional arrangements will be introduced to implement sub-Component B.4. Components A and C are unaffected. The wording of the P D O would be slightly modified.

A. Objectives

18. The new PDO is slightly reformulated to emphasize Project focus on renewable energy development: “to improve the quality and efficiency of the electricity service provision in the main three growth centers of Dar es Salaam, Arusha, and Kilimanjaro and to establish a sustainable basis for energy access expansion *and renewable energy development in Tanzania*”. The Global Environmental Objectives are unchanged.

B. Components

19. *Component B: “Off-grid Component” will be renamed “Small Power Project Component”* to better reflect Component’s support to both grid-connected and off-grid small power projects.

20. *Sub-component B1 will be modified to introduce a new beneficiary and a new activity (US\$2.0 million from Additional Financing)*. First, Additional Financing will expand the sub-Component B.1 matching grant window, which is currently providing technical assistance to project developers, to include technical assistance to PFIs to help develop, appraise, and supervise their renewable energy portfolios and to the Tanzania Investment Bank (TIB).

21. Second, Additional Financing will add a low-cost distribution pilot, as a new activity under sub-Component B.1, implemented by REA. This sub-component will demonstrate new techniques and implementation approaches to reduce distribution network costs—high even for Sub-Saharan Africa (SSA) standards. Reducing these costs would enhance commercial viability of SPP mini-grids and decrease subsidy needs.

22. *Sub-component B.4: Rural / Renewable Energy Credit Line would be added (US\$23 million from Additional Financing)*. The credit line would provide longer-term funding of up to 15 years to participating Financial Institution (PFIs) in local currency to on-lend to eligible SPPs. Project developers would request loans from a PFI of their choice; the PFIs will then perform a full project appraisal and if satisfied, will request corresponding credit line funding from the government. The credit line is open to all eligible Tanzanian financial institutions; PFIs must bear the full credit risk of their lending to SPPs, set their own lending terms, and repay the credit line to the government at interest rates based on market principles. Section V, Financial Appraisal has details on establishing market-based on-lending terms and PFI eligibility criteria. Detailed terms, eligibility criteria and procedures for their adjustments are specified in the Operating Guidelines (OG). Additional information on credit line design, alternatives considered, and the SPP portfolio, are in Annex 1.

C. Implementation arrangements

23. *Implementation arrangements for sub-Components B.1-B.3*: Components B.1-B.3 were initially implemented by the Ministry of Energy and Minerals (MEM) because REA had not yet been functional at the time of the appraisal of the original TEDAP project. However, the Project had anticipated passing implementation responsibilities to REA after assessments confirmed REA’s satisfactory capacity in procurement, financial management and safeguards. These REA assessments have now been completed with satisfactory outcomes and are available in the Project files. Consequently, in accordance with the provisions of TEDAP’s Financing and GEF

Grant Agreements (Schedule II, Section I, paragraph 3), all implementation responsibilities for Component B have been transferred from MEM to REA, and the Ministry of Finance and Economic Affairs (MOFEA) informed IDA of the transfer on January 20, 2010. This Project Paper records and reflects this transfer of implementation responsibilities.

24. *Implementation arrangements for sub-Component B.4:* The government will on-lend to PFIs in local currency (Tanzanian Shillings) via Tanzania Investment Bank, Limited (TIB), a government-owned development bank. The PFIs will on-lend to the SPPs and will be required to repay their Participation Sub-loans to the government, bearing all credit risks for their lending to SPPs. Government would cover risks related to the currency exchange rate fluctuations and the potential PFI default, for which it would be compensated by the spread between the IDA credit rate and the interest rate charged to PFIs. The TIB will administer the credit line transactions only as government agent, and therefore will carry no credit risk associated with PFIs loans.

25. The REA will be responsible for overall implementation of the rural/renewable energy credit line, including: (i) overall program oversight, marketing, coordination, and reporting, and (ii) subproject facilitation, including verifying subproject compliance with eligibility criteria, including safeguards and fiduciary requirements, and monitoring and evaluation.

26. The TIB will be a sub-implementing agency, under overall REA coordination; TIB's primary responsibilities will include the following functions: (i) liaison with PFIs, including review of completeness of PFI applications per Operating Guidelines and Eligibility Criteria, and entering into Participation Sub-loan Agreements with PFIs on behalf of Government; (ii) liaison with the Bank of Tanzania (BOT) confirming PFI's Eligibility Criteria; (iii) financial management of credit line funds, including requesting disbursements from REA, and disbursing funds to PFIs; (iv) requesting no objections from the IDA for re-financing packages if required by the OG; (v) collection of loan re-payment from PFIs; (vi) periodically calculating and announcing the on-lending terms, according to the methodology established in the OG, and (vii) financial reporting to MOFEA, MEM, REA, and IDA. TIB will sign a Project Service Agreement with REA, which will record these functions.

27. The Bank of Tanzania (BOT), which is Tanzania's central bank, will on TIB request confirm eligibility of the PFIs, according to BOT prudential regulations and its ratio of non-performing loans. BOT will also provide banking sector data needed for TIB's calculation of on-lending rates. The OG will include procedural details for these functions.

28. PFIs will provide sub-loans to SPPs on negotiated terms and conditions, carrying out standard appraisal and due diligence tasks as for their own lending. Once REA confirms subproject eligibility, PFIs can request financing for a portion of the SPP loan, awarded from the credit line, according to procedures specified in the OG.

29. A steering committee, comprising representatives from BOT, EWURA, MEM, MOFEA, REA, TANESCO, and, TIB would oversee credit line implementation, address higher-level program/policy issues, and facilitate conflict resolution. The Steering Committee, chaired by MOFEA, will establish a technical committee, chaired by REA, to deal with implementation issues of technical character and provide recommendations to the Steering Committee on higher-level program/policy issues.

30. Detailed institutional arrangements for the credit line and a step-by-step implementation process are in Annex 4.

D. Key Indicators and Results Framework

31. Both key outcome indicators related to Component B will be scaled up. The target for renewable energy installed would be increased from 17MW to 25MW. The target for the pipeline of new rural connections would be scaled up from 40,000 to 50,000. Intermediate outcome indicators will be scaled up accordingly. Two intermediate outcome indicators will be added for new sub-Component B.4., and several indicators have been added or rewritten to comply with new Bank-wide CORE indicators. Revised indicators for Component B are in Annex 2. REA will have primary responsibility for monitoring Component B using consolidated information from TIB, PFIs, and SPPs.

E. Closing date

32. The Project closing date would be extended for three years to March 31, 2015, to provide sufficient time to disburse new sub-component B.4; GEF grant closing date would be adjusted accordingly.

F. Condition of Effectiveness and Legal Covenants

33. Conditions of effectiveness consist of: (i) signing of a Project Service Agreement between the government and TIB, and (ii) adoption of an addendum to the OG satisfactory to IDA. Dated covenants are: (i) the government will establish a Steering Committee by June 30, 2010, and (ii) TIB will update its financial regulations manual within six months of the Effectiveness Date.

G. Readiness of Activities for Additional Financing

34. A pipeline of potential subprojects for the credit line is ready. The credit line is likely to finance 4 to 6 SPPs, which are expected to reach financial closure in FY10 and FY11. Commercial banks confirmed that several loan applications are already under review and this timeline is feasible.

IV. CONSISTENCY WITH THE COUNTRY ASSISTANCE STRATEGY (CAS)

35. Additional Financing is consistent with the Joint Assistance Strategy for Tanzania (JAST) and the government's National Strategy for Growth and Reduction of Poverty–MKUKUTA (Goal 6: Provision of reliable and affordable energy to consumers).³ Additional Financing is also consistent with the 2008 World Bank Strategic Framework on Development and Climate Change, particularly in piloting new initiatives to support development and dissemination of renewable energy technologies, and its pledge to increase World Bank financing for renewable energy and energy efficiency.

³ IDA's Country Assistance Strategy (CAS) is a part of the multi-donor Joint Assistance Strategy for Tanzania (JAST).

36. Other grant resources available to Tanzania for rural and renewable energy development and linked with this Project include: (i) Russian Energy Small and Medium Enterprise (SME) Grant; (ii) Lighting Rural Tanzania grant financed under the Africa Renewable Energy and Access Grant (AFREA), and (iii) Trust Fund for Energy Access and Regulations financed by the Swedish International Development Cooperation Agency (SIDA). More information on these grants and their TEDAP Project links are in Annex 1. In addition, the Project is coordinating with donors supporting REA directly, including the Norwegian Agency for Development Cooperation (NORAD) and SIDA.

V. APPRAISAL OF RESTRUCTURED / SCALED-UP PROJECT

Economic and Financial, including compliance with OP 8.30

37. Additional Financing will have multiple economic benefits. It is expected to: enable sustainable electricity provision to promote economic development and increase rural access to electricity; alleviate recurrent power shortages and improve energy security by diversifying generation sources; contribute to global CO₂ emissions reductions and the goal of averting environmental and economic threats from climate change by displacing fossil fuels, and contribute to local rural development because most project sponsors are local rural SMEs.

38. Some of these economic benefits, although significant, are difficult to quantify. Therefore, a conservative economic analysis was conducted that takes into account only quantifiable and verifiable benefits that accrue from: (a) displacing higher-cost fossil fuel generation; (b) reducing greenhouse gas emissions, and (c) connecting households. Economic analysis was carried out on representative sample SPPs, similar to those anticipated for the credit line portfolio. SPPs demonstrate robust Economic Internal Rate of Return (EIRR) ranging from 17 to 39 percent.

39. Financial analysis was carried out on the same representative project sample to confirm commercial viability of proposed investments. The resulting sub-project Financial Internal Rate of Return (FIRR) ranges from 11.7 to 20.9 percent, and equity FIRR ranges from 16.1 to 46.5 percent. Detailed results of the economic and financial analysis are in Annex 8.

40. Because the credit line promotes financially sustainable investments, the Project will require PFIs to be financially sound and comply with eligibility criteria for financial intermediaries defined in OP 8.30, including compliance with BOT prudential regulations such as those for capital adequacy and quality of portfolio, specified in Annex 9. In addition, financial institutions must demonstrate adequate risk management policies, appropriate corporate governance practices, and sufficient experience and capacity to underwrite and manage credits. The TIB will not carry credit risk associated with lending to PFIs; therefore, TIB needs not comply with eligibility criteria for financial intermediaries defined in OP 8.30, except to demonstrate adequate institutional capacity to perform transactions and knowledge of financial and other sectors.⁴ The Financial Management Capacity Assessment confirms this. (Annex 5)

41. Government will on-lend to PFIs on market terms. Initial on-lending terms will be on variable rates equal to the weighted average time deposit rate plus a spread aimed at covering administrative costs for mobilizing time deposits and the implicit cost of reserve requirements.

⁴ Per Guidance Note on Lines of Credit in Banks Operations, updated March 8, 2008, paragraph 34b

This on-lending rate was selected because it reflects banks' costs of funds. The Steering Committee may modify on-lending rate methodology if market conditions change. Details on lending terms, eligibility criteria, an overview of country and sector issues, and design aspects related to compliance with OP 8.30 are in Annex 9.

Technical

42. Renewable Energy Technologies (RETs) considered for Additional Financing, are proven globally and pose no major technical concerns. Identified priority projects use RETs with the greatest potential for small power generation in Tanzania: small hydro and biomass.

Institutional

43. See section III.C for the overview of institutional arrangements.

Procurement

44. Procurement will follow World Bank "Guidelines: Procurement under International Bank for Reconstruction and Development (IBRD) Loans and IDA Credits" dated May 2004 and revised October 2006, and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004 and revised October 2006. Subprojects under the sub-Component B.4 and performance and matching grants under sub-Components B.1 and B.2 will be allowed to use established commercial practices under procedures and thresholds established in Annex 6 and specified in the OG. The REA will monitor SPP subproject procurement. The completed REA procurement capacity assessment is available in the Project files. Overall procurement risk is rated Substantial, particularly due to REA staff unfamiliarity with World Bank procurement. The REA, however, agreed to implement proposed mitigation measures on capacity building and record keeping. Detailed procurement arrangements are in Annex 6.

Financial Management

45. *REA* will coordinate TIB activities and report to IDA. In September 2009, REA underwent an FM assessment, which confirmed adequate institutional capacity to manage IDA funds; residual risk was rated Moderate. Mitigation measures have been proposed to improve financial management arrangements and provide accurate and timely information on Project status in line with IDA requirements.

46. *TIB*. A Financial Management (FM) assessment was carried out at the TIB Head Office in line with the Financial Management Practices Manual issued by the Financial Management Sector Board in November 3, 2005. The existing FM system - including budgeting, staffing, financial accounting, financial reporting, funds flow and disbursements, and internal and external audit arrangements - was reviewed. The assessment concluded that the residual risk rating of the Additional Financing sub-component implemented by TIB is Moderate, which satisfies Bank minimum requirements under OP/BP10.02.

47. A financial management risk assessment and mitigation measures summary is in Annex 5. The full Financial Management Capacity Assessment for REA and TIB are available in the Project files.

Environmental and social

48. Additional Financing is not expected to trigger additional safeguards policies because the credit line will support projects of a similar size and type to those in the TEDAP off-grid component. Additional Financing would apply the same instruments and procedures in place for TEDAP: the Environmental and Social Management Framework (ESMF) and the Resettlement Policy Framework (RPF), publicly disclosed on July 1, 2007, and the Riparian Notification letter, sent on August 10, 2007, for which no objections were received. The Project is a Category B Project; Additional Financing is expected to retain this status.⁵ Details are in Annex 7.

VI. EXPECTED OUTCOME, BENEFITS AND RISKS

49. Additional Financing is expected to have an overall positive impact from scaling up local rural/renewable energy generation. Key benefits are described in Annex 8. Key Project risks and mitigating measures are presented in the Risk Identification Worksheet. Overall risk for Additional Financing is rated Moderate. In principle, the credit line design has two inherent risks: (i) credit line funds could remain unused due to SPP and/or PFI lack of interest, and (ii) SPPs and/or PFIs may not repay their Participation Sub-loans.

50. Project design includes mitigation measures for these risks, based on good practices and lessons learned from similar projects (Annex 1). The first risk is mitigated by: (i) the developed pipeline of viable projects; (ii) the strongly confirmed interest of leading commercial banks in lending to SPPs (several banks are in negotiations with SPPs in anticipation of credit line approval); (iii) the consultations with key stakeholders about on-lending terms, including commercial banks and SPPs, to ensure terms respond to their needs; (iv) provision of technical assistance to PFIs on appraising and supervising renewable energy projects, and (v) TEDAP-completed groundwork that created a favorable regulatory framework for renewable energy development.

51. The second risk is mitigated because: (i) the credit line design requires PFIs to assume credit risk, obligating them to conduct full project appraisals; (ii) SPPs are provided with technical assistance for pre-investment studies, and PFIs are provided with technical assistance training on how to appraise SPP projects; (iii) IDA support for Tanzania's power sector reform promotes financial sustainability for the national utility company, TANESCO, thereby mitigating the risk of TANESCO payment default to SPPs under the SPPA, since TANESCO will be the main off-taker of renewable energy produced (details of TANESCO financial recovery are in Annex 10). There are no significant financial management critical risks and possible controversial aspects.

VII. FINANCIAL TERMS AND CONDITIONS

52. Standard IDA terms.

⁵ Under the ESMF screening process, a subproject could be declared Category A (or the national equivalent); in case of this unlikely event, the Project would be reclassified Category A, and ASPEN review of subproject ESIA would be sought.

Annex 1: Detailed Description of Project Components

TANZANIA: Additional Financing: Energy Development and Access Expansion Project

Additional Financing and modifications introduced to sub-Component B.1: Small Power Generation and Distribution

1.1 Sub-component B1 will be modified to introduce a new beneficiary and a new activity (*US\$2.0 million Additional Financing*).

1. Including PFIs and TIB as a new beneficiaries for matching grants

1.2 Additional Financing will expand the existing matching grant window under sub-Component B.1, which is currently providing technical assistance to project developers, to include technical assistance to PFIs to develop, appraise, and supervise renewable energy projects, and for staff training and other capacity building needs related to their renewable energy lending portfolios.

1.3 Initially, TA will be provided without charge to encourage commercial banks to participate in renewable energy financing; as capacity improves and renewable energy lending expands, a matching contribution could be considered. All participating PFIs will be eligible for matching grants and can select their own consultants; REA will maintain sample TORs and consultant long lists for PFIs to draw upon. Eligible TA activities and matching grant amounts will be specified in the OG.

1.4 Additional Financing will also provide technical assistance to Tanzania Investment Bank Limited (TIB) to enhance its capacity to perform the functions mentioned in Annex 4.

2. Introducing a low-cost distribution pilot as a new activity

1.5 Additional Financing will introduce a low-cost distribution pilot as a new activity to be financed under sub-Component B.1. The pilot aims to develop new techniques and implementation approaches to reduce distribution network costs, now among the highest in SSA. REA will implement the pilot and lessons learned will be disseminated widely among SPPs and TANESCO. Reducing investment costs could significantly increase the viability of mini-grid projects and reduce the need for subsidies. The pilot's detailed implementation arrangements will be included in the OG.

Additional Financing for new sub-Component B.4 – Rural / Renewable Energy Credit Line

1.6 *Sub-component B.4 Rural / Renewable Energy Credit Line would be added (US\$23 million Additional Financing).*

1.7 The credit line would be implemented through financial intermediaries, in compliance with World Bank OP 8.30 on Financial Intermediary Lending.⁶ Typically, renewable energy projects require longer-term funding (e.g. 15 year loans) due to their relatively high upfront investment

⁶ The policy applies to bank loans made available to financial intermediaries for on-lending/investment.

costs and longer construction period, which are subsequently offset by lower O&M costs, and gradual, but steady revenue stream. Unfortunately, in the current market conditions, local commercial banks are unable to provide loans to the SPPs at these required long-terms. The proposed credit line would therefore fill the gap in the current Tanzanian financial sector by providing local banks with long-term loans to finance small rural and renewable energy projects. The credit line would scale up TEDAP outcomes and targets for renewable energy generation.

1.8 The credit line would provide longer-term funding of up to 15 years to participating Financial Institution (PFIs) in local currency to on-lend to eligible rural/renewable energy projects. Project developers would request loans from eligible PFIs they choose; PFIs will complete a project appraisal and if satisfied, and upon REA's confirmation of project's eligibility will request corresponding credit line funding. The credit line is open to all eligible Tanzanian financial institutions; PFIs must repay the credit line to Government, bearing full credit risk for their SPP lending.

1.9 *Sub-project eligibility criteria* include project type (rural and/or renewable energy), project size (up to 10MW or with 10MW export capacity to TANESCO), legal and regulatory compliance, and compliance with Bank environmental, social, and fiduciary requirements.

1.10 *PFI eligibility criteria* include compliance with BOT prudential regulations, such as minimum capital adequacy ratio, acceptable level of exposure to one person/party, acceptable liquid asset ratio, appropriate loan-to-deposit ratio, adequate net open positions in foreign exchange and funds placement in foreign banks, and an additional indicator of acceptable ratio of non-performing loans to total loans. The BOT will supply this information on compliance with BOT prudential rules and non-performing loans to TIB upon request.

1.11 In addition, PFIs must demonstrate adequate risk management policies, appropriate corporate governance practices, and sufficient experience and capacity to underwrite and manage credits. The assessment of these three aspects will be carried out upon the PFI's expression of an interest to participate in the credit line. Detailed PFI eligibility criteria are specified in the OG.

1.12 *On-lending terms.* The PFIs will be free to set their own terms in lending to the final beneficiaries. The interest rate charged to PFIs will be based on market principles. Initial on-lending terms will be on variable rates equal to the weighted average time deposit rate plus a spread aimed at covering administrative costs for mobilizing time deposits and the implicit cost of reserve requirements. This on-lending rate was selected because it reflects banks' costs of funds. Annex 9 provides more information on on-lending terms and alternatives considered. The Steering Committee may modify on-lending rate methodology if market conditions change.

1.13 *Operating Guidelines.* Detailed eligibility criteria, on-lending terms, adjustment methodology and other implementation procedures will be specified in the OG.

1.14 *Lessons learned.* The credit line has incorporated international lessons learned from similar World Bank-implemented renewable energy credit lines, including Philippines, Sri Lanka, Vietnam, Turkey, and Uganda. Successful initiatives require the following:

- A strong champion can promote and facilitate the credit line, which is the REA in Tanzania.
- Credit line terms should be as simple as possible in order to facilitate renewable energy lending; renewable energy lending is a new business line for most of the local banks, and requires local banks to develop capacity and expertise.
- Technical Assistance needs to be provided to the PFIs for the development, appraisal and supervision of their renewable energy portfolios.
- Renewable energy projects' cash flows are very sensitive to interest rate fluctuations. On-lending rates should therefore be as stable and predictable as possible. Fixed rate lending is preferable if local market conditions allow it. Prior to launching the credit line, an enabling regulatory framework and a portfolio of commercially viable subprojects should be established.
- The proposed financing instrument should encourage banks to mobilize additional resources (e.g. deposits) for lending to renewable energy projects.

1.15 *Design alternatives* considered and rejected are summarized in Table 2 below.

Table 2: Key design alternatives considered and rejected

Alternative	Hypothesis	Reasons for rejection
A guarantee mechanism	A guarantee mechanism would reduce local commercial bank risks resulting in increased lending to small renewable energy projects	This alternative would not create the long-term liquidity necessary to make renewable energy investments financially viable, which was identified as the key obstacle. International good practice and lessons learned in countries with similar conditions demonstrate that a credit line is an effective instrument to scale up renewable energy. In addition, a credit line strengthens the discipline of commercial banks in project appraisal, because banks assume all credit risk. However, a guarantee mechanism could complement or replace the credit line under a follow-up Project if access improves to longer-term finance in Tanzania's capital market.
A standby liquidity facility (model approved under the Energy for Rural Transformation Project in Uganda II)	A stand-by facility encourages PFIs to use of their own funds to lend to SPPs. PFIs provide 5-7 year loans from their own funds at existing market terms; these loans are expected to be refinanced for additional 5-7 years. If PFIs are not able to refinance with their own funds, they can access a stand-by refinancing facility. The stand-by facility, thereby creates a de facto loan term of 10-14 years. The facility can also address other financing constraint, such as by providing guarantee for the construction risk.	This is the first time the Tanzanian banking sector has been encouraged to finance renewable energy projects; simple financing instruments will avoid overburdening banks as they develop capacity and expertise in this new business line.
Channeling credit line through BOT	BOT is perceived by PFIs as a strong regulator; PFIs would have strong incentives to repay the loans to BOT.	BOT is not allowed to provide longer-term loans to PFIs, and is phasing out all non core functions.

Selecting an APEX commercial bank to administer credit line	Efficient fund administration	Other PFIs expressed concerns about sharing project and financial information with a de facto competitor. The APEX Bank could not access the credit line, which might reduce competition. Administrative costs would likely be higher and significant delays could occur during the competitive selection process for the APEX Bank, which is inadvisable considering Tanzania's urgent necessity to invest in renewable energy.
Selecting a few commercial banks to implement credit line	This option would curtail administrative layers and operational costs	This would limit PFIs competition and could trigger monopolistic behavior among selected PFIs as they seek to maximize profits; limiting the provision of capacity building activities to only a few selected PFIs would reinforce this advantage and is contrary to the proposed Additional Financing objectives.

1.16 *Details of subproject portfolio.* The credit line is expected to finance four to six small renewable energy projects (depending on project size) to demonstrate the viability of these projects in Tanzania. By doing so, the credit line aims to develop capacity and interest among project developers and banks to build a larger renewable energy portfolio.

1.17 Eligible PFIs will select projects to finance. It is, however, likely that most selected projects will come from the REA priority list, which now has 22 projects totaling about 78MW; 16 of these are small hydro projects and 6 are small biomass projects (sugar co-generation, agriculture and wood-processing waste); 9 project promoters are well-established private companies, 5 are NGO/community-based projects, 6 projects are advertised for private sector participation; 11 projects (42MW) aim to supply the main grid under a standardized small power purchase agreement and tariff (SPPA/T), 5 projects (17MW) aim to sell power to TANESCO's isolated grid under the SPPA/T for isolated grids, and the remaining 6 projects (19MW) are green-field projects to establish isolated mini-grids in non-electrified areas.

1.18 *Other grant resources* for rural and renewable energy development will be linked with this Project. They include: (i) Russian Energy SME Grant; (ii) Lighting Rural Tanzania grant financed under the Africa Renewable Energy and Access Grant (AFREA), and (iii) Trust Fund for Energy Access and Regulation financed by SIDA. More information on these grants and their TEDAP Project links are in Table 3 below. In addition, the Project is coordinating with donors supporting REA directly, including NORAD and SIDA.

Table 3: Other grant resources

Grant	Objectives	Activities financed in Tanzania
Russian Energy SME Grant	Support additional financing and technical assistance activities designed to strengthen SMEs in providing energy services to poor communities in SSA	Parallel financing for sub-components B.1 (performance and matching grants) and B.4 (credit line) of TEDAP, supporting smaller SPPs (US\$3-5 million)
Africa Renewable Energy and Access Grant (AFREA) (Government of Netherlands)	Facilitate development of sustainable business models to bring efficient, clean and affordable lighting services to the Tanzanian poor.	Lighting Rural Tanzania Grant: Parallel financing for the sub-component B.1 (matching grants) to support innovative approaches to extending low-cost lighting to Tanzanian rural poor (US\$1.1 million)

<p>SIDA trust fund for technical assistance for energy access and regulation in Tanzania</p>	<p>(i) Build up REA's capacity to develop, finance and implement a scale up rural electrification program, with renewable energy and grid and off-grid components, and (ii) Develop a credible and clear regulatory system to promote the efficient and financially sustainable operation of TANESCO, SPPs and other sector enterprises.</p>	<p>Technical Assistance to build up the operational capacity of REA and EWURA (US\$ 3.6 million)</p>
--	--	--

Annex 2: Results Framework and Monitoring-Component B

TANZANIA: Additional Financing: Energy Development and Access Expansion Project

A. Results Framework

2.1 The PDO indicators for Component A and C remain unchanged. Only the indicators for Component B are included in this Results Framework. The revised indicators also integrate the new Bank-wide Core Indicators.

Table 4: Results Framework

PDO	Project Outcome Indicators	Use of Project Outcome Information
<p>(b) To establish a sustainable basis for energy access expansion and renewable energy development in Tanzania. <u>[additional clarification to the original objective]</u></p> <p>(c) To support the global objective of reducing CO₂ emissions by reducing barriers to renewable energy development.</p>	<ul style="list-style-type: none"> • REA fully functional as demonstrated by: (i) capacity to develop, finance, and implement scale-up of pilot schemes, and (ii) pipeline of new rural connections. <i>(key outcome indicator)</i> • Generation capacity (MW) of Renewable Energy constructed under the project <i>(key outcome indicator)</i> • Number of direct beneficiaries, of which number of women <i>(Bank-wide core indicator)</i> 	<ul style="list-style-type: none"> • To evaluate progress towards goals established in MKUKUTA. • To evaluate longer-term sector prospects and their economic and fiscal impacts on Tanzanian economy.
Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
<p><i>Component B:</i> <i>Small Power Project Component</i> <u>[renamed from the original Off-grid Investments]</u></p> <p>(i) Increased electricity access in rural and peri-urban Tanzania to productive enterprises, service delivery facilities (in health and education), and to households with the capacity to pay for electricity.</p> <p>(ii) Establishment of a functioning institutional and regulatory framework for commercially oriented, sustainable service delivery for rural electrification and renewable energy that can be scaled up.</p> <p>(iii) Removal of barriers to, and reduction of costs of, implementation of renewable energy technologies to help mitigate greenhouse gas emissions.</p> <p>(iv) Provision of long-term loans to renewable/rural energy developers on commercial basis <u>[new intermediate outcome]</u>.</p> <p>(v) Enhanced bank expertise in appraising and supervising rural/renewable energy projects <u>[new intermediate outcome]</u>.</p>	<ul style="list-style-type: none"> • Number of people provided with access to electricity under the project by household connections • Number of indirect beneficiaries, of which number of women • Number of community electricity connections under the project • Standard PPA/Ts methodology for small renewable power projects adopted and in use (Yes/No) • Delivery of MW of renewable energy by grid connected SPPs under Standard PPA/Ts • Number of subproject transactions concluded by REA. • Number of PFI loans approved for rural / renewable energy sub-projects • Number of banks accessing REA's capacity building services 	<ul style="list-style-type: none"> • Provides inputs to develop policy and regulation, sector-wide access expansion program and to fine-tune credit line design and REA subsidy guidelines.

B. Arrangements for Results Monitoring for Component B

Table 5: Arrangements for Results Monitoring

Project Outcome Indicators	Baseline	Progress to date	Original target	Revised target	Comments
Improving REA functionality as demonstrated by capacity to develop, finance and implement scale-up of pilot schemes.	REA has an incompletely functional organization	<p><i>Director General and Key Staff appointed:</i> REA fully staffed and in operation</p> <p><i>Technical, Procurement and Safeguards Capacity added:</i> REA's Technical, Procurement, Financial Management and Safeguards Capacity has been assessed as satisfactory</p> <p><i>Transfer of Component B implementation responsibilities to REA:</i> the implementation responsibilities have been transferred from MEM to REA</p>	REA identifies and approves new connections	No change	
Improving REA functionality as measured by a pipeline of new rural household connections.	0	18,000	40,000	50,000	Credit line is critical for meeting both the original and the revised target.
Generation capacity (MW) of Renewable Energy constructed under the Project	0	Four SPPAs for 16MW signed, but lack of long-term funds slowing down the progress	17	25	New CORE indicator, replacing earlier wording as <i>CO₂ emission reduction (as measured by MW of renewable energy installed)</i> . Credit line is critical for meeting both the original and the revised target.
Number of direct beneficiaries, of which number of women	0	<i>Models and Regulatory Framework developed</i>	16,200 connections	114,000 persons of which 57,000 women	<i>New Bank-wide CORE indicator.</i> Direct beneficiaries are those receiving directly electricity service in their homes, businesses and staff in public institutions.

Inter mediate Outcome Indicators	Baseline	Progress to Date	Original target	Revised target	Comments
Number of persons provided with access to electricity under the Project by household connections,	0	<i>Models and Regulatory Framework developed:</i> comprehensive regulatory framework for SPPs approved by EWURA; OG adopted by REA, 3 grant applications received; no objection issued for first two grants for 1,750 connections.	15,000 connections	110,000 persons	New CORE indicator replacing original indicator: <i>new rural household and business connections to modern electricity services through new off-grid electrification models with PSP</i> . The person target of 110,000 corresponds to an increased target of 20,000 connections (average household size of 5.7)
Number of indirect beneficiaries, of which number of women	0	<i>Models and Regulatory Framework developed</i>	-	250,000 persons, of which 125,000 women	<i>New Bank-wide CORE indicator.</i> Indirect beneficiaries are people in the newly electrified areas who will not have a direct connection in their home but will benefit from electricity indirectly through an improved provision of public services, such as education and health services.
Number of community electricity connections under the Project	0	<i>Models and Regulatory Framework developed:</i> Sustainable Solar Market Packages designed and first SSMPs awarded for 217 public institutions.	1,200	No change	New CORE indicator replacing original indicator: <i>New public institutions electrified through new off-grid electrification models with PSP</i> .
Standard PPA/Ts methodology for small renewable power projects adopted and in use (Yes/No)	No SPPAs signed	<i>Yes, SPPA/Ts formally adopted:</i> SPPA/T approved by EWURA and published (www.ewura.go.tz); the first four SPPAs (16 MW) have been signed.	SPPA/Ts signed for 20 MW	Minor wording change	Target changed from the original: SPPA/Ts signed for additional 20MW (meaning of additional not clear)
Delivery of MW of renewable energy by grid connected SPPs under Standard PPA/Ts.	0	0	12	20	Increased target
Number of transactions completed by REA.	0	-	5	10	Increased target
Number of PFI loans approved for rural/renewable energy subprojects	0	-	-	4	New indicator under the Additional Financing
Number of banks accessing REA's capacity building services	0	-	-	3	New indicator under the Additional Financing

Monitoring arrangements

2.2 REA will have primary responsibility for TEDAP component B monitoring and evaluation, including Additional Financing. REA's monitoring and evaluation unit will be in charge of this activity, in close coordination with other departments, particularly the Project manager and staff, who are in continuous contact with project developers. REA's monitoring and evaluation unit is now fully staffed and has capacity to track project progress and indicators. Additional technical assistance will be provided to this unit if required. If verification is more complex and technical, such as for the Sustainable Solar Market Packages (SSMP), monitoring and evaluation may be contracted out to specialists. REA will visit projects financed under its credit line and/or grant window at least once per year, or as needed, for example to verify compliance with outputs for grant disbursements; REA will issue and share supervision reports with MEM and IDA. Monitoring will include safeguards issues, and if appropriate, REA will involve communities in monitoring subprojects.

2.3 TIB will monitor the credit line financial implementation; TIB will establish and maintain a TEDAP Participation Sub-loan database, which will include the status of signed Participation Sub-loans and sub-loan applications.

2.4 PFIs will monitor the SPPs loan financial performance.

2.5 MEM will retain overall TEDAP coordination and monitoring, and overall reporting to IDA, consolidating reports and information from TANESCO, REA, and TIB.

Annex 3: Summary of Estimated Project Costs

TANZANIA: Additional Financing-Energy Development and Access Expansion Project

3.1 Table 6 below summarizes changes to the original IDA allocation through reallocation and Additional Financing; GEF allocations remain unchanged.

Table 6: Original and Revised IDA allocation (US\$ million)

Part	Component	Original allocation	Revised allocation Original+AF	Reallocation of original credit	Additional Financing
	Small Power Generation Distribution				
B.1.a	Grid-connected generation	0	0	0	
B.1.b	Grid-connected mini-grid	2.0	2.5	+0.5	
B.1.c	Green mini/micro-grid	5.0	2.5	-2.5	
B.1.d	Matching grants for PFIs		1.0		1.0
B.1.e	Low-cost distribution pilot		4.0	+3.0	1.0
	<i>Subtotal</i>	<i>7.0</i>	<i>10.0</i>	<i>+1.0</i>	<i>2.0</i>
	Sustainable Solar Market Development				
B.2.a	Sustainable Solar Market Packages for public institutions	6.4	5.0	-1.4	
B.2.b	Households/micro-enterprises	1.6	1.5	-0.1	
	<i>Subtotal</i>	<i>8.0</i>	<i>6.5</i>	<i>-1.5</i>	
	Technical Assistance				
B.3.a	Technical Assistance (excluding Operating Costs)	0.7	0.5	-0.2	
B.3.b	Technical Assistance (Operating Costs)	0.3	1.0	+0.7	
	<i>Subtotal</i>	<i>1.0</i>	<i>1.5</i>	<i>+0.5</i>	
	Rural/Renewable Energy Credit line				
B.4	Credit line		23.0		23.0
	<i>Subtotal</i>		<i>23.0</i>		<i>23.0</i>
	SPP Component	16.0	41.0	0	25.0

Annex 4: Implementation Arrangements

TANZANIA: Additional Financing-Energy Development and Access Expansion Project

Detailed implementation arrangements for sub-Component B.4

4.1 REA will be responsible for overall implementation of the rural/renewable energy credit line, including the following: (i) oversee overall program - marketing, coordination and reporting to MEM, MOFEA, and IDA; periodic review of program parameters, and liaison with current and prospective participants; (ii) facilitate subprojects - establish subproject eligibility criteria and confirm compliance, including environmental and social safeguards and fiduciary requirements; oversee PFI procurement processes, including requesting IDA's 'no-objection' to any SPP procurement processes that are above prior review thresholds; subproject monitoring and evaluation, and (iii) participate in the Steering Committee.

4.2 Additional Financing will introduce Tanzania Investment Bank, Limited (TIB) as a sub-implementing agency, acting as government agent; TIB will administer credit line financial transactions on behalf of the government, under a Project Service Agreement signed with REA. The TIB will carry out the following functions: (i) liaison with PFIs, including review of completeness of PFI applications per Operating Guidelines and Eligibility Criteria, and entering into Participation Sub-loan Agreements with PFIs on behalf of GOT; (ii) liaison with BOT confirming PFI's Eligibility Criteria; (iii) financial management of credit line funds, including requesting disbursements from REA, and disbursing funds to PFIs; (iv) requesting no objections from the IDA for re-financing packages if required by the OG ; (v) collection of loan re-payment from PFIs; (vi) periodically calculating and announcing the on-lending terms, according to the methodology established in the OG, and (vii) financial reporting to MOFEA, MEM, REA and IDA., and (viii) participation in the Steering Committee.

4.3 Since TIB carries no credit risk associated with PFI lending, it need not meet PFI eligibility criteria; however it must have adequate institutional capacity to perform Apex functions and sufficient knowledge of financial and other sectors, which it does.⁷ (See Annex 5) Project Service Agreements with REA will specify detailed Project functions and responsibilities.

4.4 BOT, which is Tanzania's central bank, on TIB request will confirm eligibility of the PFIs, related to BOT prudential regulations and its ratio of non-performing loans. BOT will also provide banking sector data needed for TIB's calculation of on-lending rates. The OG will include procedural details for these functions. BOT will also participate in the Steering Committee.

4.5 The PFIs will lend to SPPs, liaise directly with SPPs, and carry out project appraisal (for which PFIs can access REA matching grants) and will carry all credit risk. When REA confirms project eligibility, PFIs will request financing for a portion of the SPP loan award from the credit line, according to procedures specified in the OG.

⁷ Per Guidance Note on Lines of Credit in Banks Operations, updated March 8, 2008, paragraph 34b

4.6 SPPs will develop eligible projects and request funding from eligible PFIs they choose. SPPs awarded a loan financed by the credit line will be responsible for carrying out procurement under provisions specified in Annex 6, and will be responsible for complying with Bank environmental and social safeguards, specified in Annex 7. The SSPs will build and operate projects and repay loans to PFIs; SPPs will sell power to TANESCO (under standardized small power purchase agreements and tariffs-SPPA/T) or to retail customers through their own mini-grids (at EWURA-approved retail tariff); SPPs must report project progress to PFIs and REA.

4.7 TANESCO, the national electricity utility, is the main off-taker of the SPP generation output (other than that directly sold to SPP mini-grids); TANESCO signs SPPAs with project developers. SPPAs are available: (i) for the main grid or (ii) for isolated grids. Isolated grid tariffs are higher because renewable energy projects displace more expensive diesel generation; EWURA approved the SPPA template and methodology to calculate tariffs. TANESCO will participate in the Steering Committee.

4.8 EWURA, the energy sector regulator, oversees all SPPs, which must meet EWURA regulatory requirements; EWURA developed simplified rules and guidelines for developers to ease regulatory strain for small projects. Each year EWURA announces the standardized small power purchase tariff (SPPT), calculated as avoided costs of TANESCO alternative generation options. EWURA will participate on the Steering Committee.

4.9 MEM will have overall Project coordination, monitoring and IDA reporting for both grid and SPP components, consolidating procurement, reporting and monitoring information from TANESCO and REA.

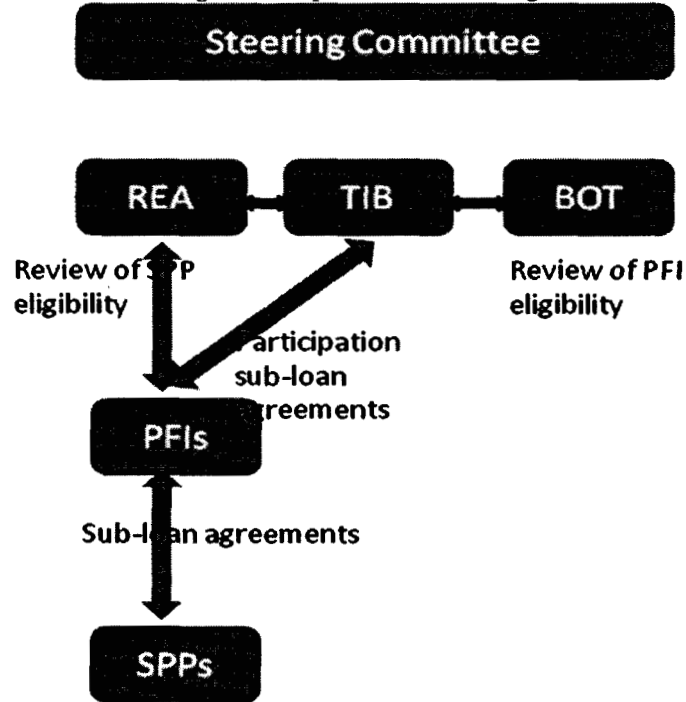
4.10 A steering committee, chaired by MOFEA and comprising representatives from BOT, EWURA, MEM, REA, TANESCO, and, TIB would oversee credit line implementation, address higher-level program/policy issues, and facilitate conflict resolution. The steering committee will also periodically review and if needed adjust on-lending term methodology and benchmarks, based on the market conditions. The steering committee is expected to meet once a year or more frequently if required. The Steering Committee, will establish a technical committee, chaired by REA, to deal with implementation issues of technical character and provide recommendations to the Steering Committee on higher-level program/policy issues.

Implementation process

- **Step 1:** SPP requests a loan at a PFI. SPP submits a loan application to PFI with documents: permits, licenses, clearances, technical designs, feasibility, subproject financial analysis, business plan, procurement plan, environmental and social assessments.
- **Step 2:** PFI appraises the project; PFI can access an REA matching grant to contract appraisal expertise.
- **Step 3:** Upon satisfactory appraisal, PFI submits project to REA for clearance.
- **Step 4:** REA verifies project and project sponsor eligibility, and confirms this to PFI.
- **Step 5:** PFI requests credit line refinancing from TIB, including REA clearance letter.
- **Step 6:** TIB reviews applications for compliance with all formal requirements; TIB confirms with BOT that PFI complies with eligibility criteria.

- **Step 7:** TIB informs PFI of decision. Eligible PFIs sign a Participation Sub-loan agreement with TIB; TIB will seek IDA 'no objection' for the Participation Sub-loan prior to the signing, if required by OG.

Figure 1: Implementation arrangements



Annex 5: Financial Management and Disbursement Arrangements

TANZANIA: Additional Financing - Energy Development and Access Expansion Project

The Rural Energy Agency (REA)

5.1 REA will coordinate TIB activities and report to IDA. In September 2009, REA underwent a FM assessment, which confirmed adequate institutional capacity to manage IDA funds; residual risk was rated Moderate. The finance division in REA has qualified and experienced accountants. The REA computerized system (SAGE) can be used for project accounting. REA has an experienced chief internal auditor and an effective and properly constituted audit committee. The external audit arrangements are adequate. REA has already developed a comprehensive financial accounting manual that is sufficient for the Project. Mitigation measures have been proposed to improve financial management arrangements and provide accurate and timely information on Project status in line with IDA requirements. These include: adequate FM supervision during the project supervision; strengthened internal audit and audit committees; annual fiduciary assessments through Public Expenditure Financial Assessment Reviews; adequate supervision and quality assurance of the project by the oversight agencies. Programs such as the Public Financial Management Reform Program and the Local Government Reform Program are used by the Government of Tanzania to fund these mitigation measures at central and local government levels. REA's FM assessment is available in the Project files.

Tanzania Investment Bank, Limited (TIB)

5.2 TIB will administer the financial transactions of the credit line as an agent of Government. TIB is Tanzania's leading development bank and has been operational since 1970. The implementation unit will be included in TIB's Agency Funds Administration Unit (established for administering similar projects). TIB was also selected as a trust agent for REA Rural Energy Fund, and has an established working relationship with REA. TIB functions in implementing the credit line will be limited to funds administration. The financial aspect of the Project will be the responsibility of the Finance Manager, who will report to the Head of Finance and Operations. The Head, Internal Audit, will be in charge of sub-Component auditing and report directly to the Audit and Risk Board Committee.

5.3 TIB assessment results indicate that overall mitigated risk rating for TIB is Moderate, which satisfies Bank minimum requirements under OP/BP10.02 and is therefore adequate to provide, with reasonable assurance, accurate and timely information on sub-Component status as required by the World Bank. Assessment results are summarized below.

FINANCIAL MANAGEMENT ARRANGEMENTS

5.4 **Budgeting Arrangements.** TIB's budgeting system will be followed. An adequate and thorough consultative process is in use to generate budgets using the management-by-objectives approach.

Accounting Arrangements

a) Accounting System: TIB has two main accounting software systems: (i) Smart stream accounting package for reporting, and (ii) T24 software for core banking operations. When the sub-Component books of accounts are set up they should include: a Cash Book, ledgers, journal vouchers, operating asset register, and contracts register. These books of accounts should be maintained specifically for the sub-Component. A list of accounts codes known as the Chart of Accounts should be drawn up for the sub-Component; these codes should match classifications for expenditures, sources, and application of funds indicated in the Financing Agreement. The Chart of Accounts should be developed so that sub-Component costs can be related directly to specific sub-Component work activities and outputs. It was agreed that all records and vouchers will be kept for a minimum of five years

b) Staffing: the Head of Finance and Operations will assume full fiduciary responsibility as the accounting officer. Existing finance staff are well-qualified and experienced in general but have little specific prior experience with IDA-financed projects; therefore accounting staff will be trained on Bank financial reporting and disbursement procedures prior to sub-Component effectiveness.

c) Accounting policies and procedures: TIB's accounting policies and procedures are documented in the Financial Accounting Manual, but some sections will need to be updated within six months after effectiveness to be adequate for the Project. The sections that require updates are documented below under the Internal Control and Internal Audit arrangements.

d) Accounting standards: TIB will use International Financial Reporting Standards (IFRS) to prepare the Project accounts.

Internal Controls and Internal Audit Arrangements

5.5 The Financial Accounting Manual will be updated to include the following Project activities: funds flow processes, accounting records, supporting documents, computer files, and specific accounts in financial statements involved in processing transactions; the list of accounting codes known as the Chart of Accounts, which is used to group transactions; accounting processes from initiating a transaction to including it in the financial statements; transaction authorization procedures; financial reporting process to prepare annual financial statements and unaudited interim financial reports, including significant accounting estimates and disclosures; sub-component financial and accounting policies; procedures for budgeting, financial forecasting, and replenishing the Project Account, and auditing arrangements.

5.6 TIB has an internal audit department with five qualified and experienced staff and has adopted the risk-based audit approach. The internal audit function reports to an independent Audit and Risk Board Committee that meets quarterly and is effective in following up on issues raised. The Internal Audit Department will incorporate the Project in their annual work plans.

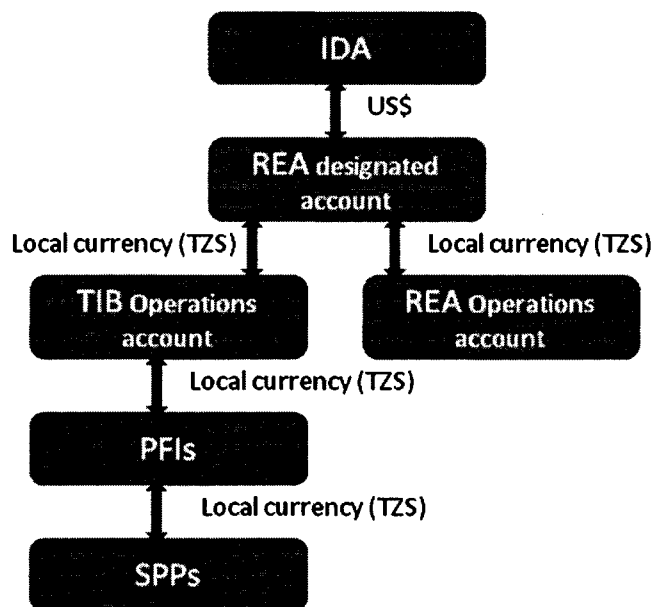
Funds Flow Arrangements

5.7 TIB will open an **Operations Account denominated in local currency**. Communications regarding opening this bank account and account signatories should be sent to REA and IDA before disbursements are made. Bank signatories to the TIB Operations Account will use existing Government Financial Procedures and Regulations issued by Treasury.

5.8 REA will transfer funds from the Designated Account denominated in US\$ (to be opened with the Bank of Tanzania) into the TIB Operations Account (to be opened in TIB) denominated in local currency. TIB will make payments to PFIs from the Operations Account. The flow of funds from IDA through REA and TIB to the PFIs and SPPs is shown in the chart below.

5.9 **Disbursement Arrangements.** REA is using the report-based method, which allows the sub-component to have buffer funds for a three-month period because it is prepared every three months and the sub-component cash flow is for six months. The sub-component cash flow must be supported by work plans. The TIB will be required to refund any ineligible expenditures made from the operating bank accounts.

Figure 2: Flow of Funds Chart



5.10 **Financial Reporting Arrangements.** TIB will prepare quarterly un-audited Interim Financial Reports (IFR) in form and content satisfactory to REA and IDA; REA will consolidate the IFRs and submit them to IDA within 45 days after the end of the quarter on which they report. IDA, REA and TIB have agreed on the IFR format; the IFR will include a section that accounts for funds utilized and a section to access funds using the report-based method of disbursement

5.11 **External Audit Arrangements.** The National Audit Office of Tanzania, the statutory auditor of all government entities, including TIB, will audit REA using comprehensive audit

TORs to cover both REA- and TIB-implemented Project elements; IDA and REA have agreed on audit TORs; the external audit will use International Standards on Auditing. The audit report and management letter are to be submitted to IDA within six months after the end of each financial year. Audited TIB accounts for the year ending December 31, 2008 were reviewed and a clean (unqualified) audit report was issued, dated March 31, 2009, within the three-month period stipulated by the Banking and Financial Institutions Act, 1991. The related management letter raised no major internal control issues.

Conclusion

5.12 The assessment concludes that the residual risk of Additional Financing sub-Component financially executed by TIB and REA is rated Moderate, satisfying Bank minimum requirements under OP/BP10.02.

Annex 6: Procurement Arrangements

TANZANIA: Additional Financing-Energy Development and Access Expansion Project

6.1 Procurement for Additional Financing for the Tanzania Energy Development and Access Expansion Project will be carried out according to World Bank “Guidelines: Procurement under IBRD Loans and IDA Credits,” dated May 2004, and revised October 2006 (Procurement Guidelines), and “Guidelines: Selection and Employment of Consultants by World Bank Borrowers,” dated May 2004 and revised October 2006 (Consultant Guidelines) and provisions stipulated in the Financing Agreement. Procurement actions under different expenditure categories are described in general below. For each contract under the Financing Agreement, the Borrower and IDA have agreed on the following in the Procurement Plan: procurement or consultant selection methods, prequalification requirements, estimated costs, prior review requirements, and time frame. The Procurement Plan will be updated at least annually or as required to reflect actual Project implementation needs and institutional capacity improvements.

6.2 Additional Financing procurement will maintain existing arrangements for TEDAP. REA’s procurement capacity assessment has been carried out. Based on this assessment and considering that REA is now fully staffed and operational, the procurement implementation responsibilities of REA associated activities have been transferred to REA from MEM. REA agreed to implement proposed mitigation measures on capacity building and record keeping.

6.3 Private developers, suppliers, and contractors will be expected to observe the highest standard of ethics during procurement and execution of contracts financed under subprojects. Project implementation will adhere to “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA and Grants,” dated October 15, 2006 (Anti-Corruption Guidelines).

Assessment of REA’s capacity to implement procurement

6.4 The REA procurement capacity assessment is in Project files. Key issues and risks concerning Project procurement have been identified and mitigation measures have been proposed. The assessment has found that Procurement Management Unit (PMU) staff lack experience in World Bank procedures, and that procurement data management - filing and record keeping—is inadequate; therefore overall Project risk for procurement is rated Substantial. Proposed mitigation measures appear below.

Table 7: Proposed mitigation measures

Risk	Action	Timeframe	Responsibility
PMU staff lack experience in World Bank procurement procedures.	Train PMU procurement staff in World Bank procurement procedures.	During Project implementation	Borrower and IDA
Inadequate procurement filing and record keeping	Train staff in data management; establish acceptable procurement filing/record keeping	Within 30 days of REA assuming procurement responsibilities	Borrower and IDA

6.5 Frequency of Procurement Supervision: Prior review supervision will be carried out from IDA offices; in addition, it is recommended that one supervision mission be carried out every six months for post review of procurement actions.

Procurement arrangements: REA

6.6 Thresholds for Procurement Methods and Prior Review: Procurement plan updates will apply the thresholds below for procurements carried out by the REA.

Table 8: Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value Threshold (US\$)	Procurement/ Selection Method	Contracts Subject to Prior Review
Works	>5,000,000	ICB	All
	<5,000,000	NCB	None (Post review) unless specified in the PP
	<50,000	Shopping	None (Post review)
	All values	Direct Contracting	All
Goods	>500,000	ICB	All
	<500,000	NCB	None (Post review) unless specified in the PP
	<50,000	Shopping	None (Post review)
	All values	Direct Contracting	All
Consulting Services - Firms¹	> 200,000	QCBS/ Other ² (QBS/FBS/LCS)	All
	< 200,000	CQS/ Other ² (QBS/FBS/LCS)	None (Post Review)
	All values	SSS	All
Consulting Services – Individuals (IC)	>100,000	IC - Qualification	All
	<100,000	IC - Qualification	None (Post review)
	All Values	IC - SSS	All

NOTES:

General – TORs for all contracts shall be cleared by IDA

1. (a) Shortlists for consultancy services for contracts estimated to be less than US\$200,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

(b) Consultancy services for contracts estimated to cost more than US\$200,000 equivalent per contract shall be advertised in United Nations Development Business - UNDB online and dgMarket in addition to advertising in national newspaper(s) in accordance with the provisions of paragraph 2.5 of the Consultant Guidelines.

2. QBS, FBS, and LCS for assignments meeting requirements of paragraphs 3.2, 3.5, and 3.6 respectively of the Consultant Guidelines.

Procurement Arrangements: Private sector participation

6.7 Additional Financing is expected to provide sub-loans to finance four to six subprojects-small renewable energy projects. PFIs can select projects to finance, as long as they meet eligibility criteria. It is, however, likely that most selected projects will come from the REA priority list, which now has 22 projects to be implemented by private operators/entities. The subprojects will include activities to be implemented through provision of goods, works, and/ or consultancy services.

6.8 Eligibility criteria for private sector subprojects to be financed under Additional Financing are specified in the OG. REA will be responsible for all procurement oversight and management of subprojects. REA will keep records and copies of procurement documents handled through private operators.

6.9 Contracts estimated to cost below US\$5.0 million and US\$1.0 million equivalent per contract for works and goods respectively to be procured by private entities will be done through established commercial practices acceptable to IDA (Section 3.12 of the Procurement Guidelines). Contracts estimated to cost US\$5.0 million and US\$1.0 million or more equivalent per contract for works and goods respectively to be procured by private entities will be done through International Competitive Bidding (ICB) as provided in Section II of Bank Procurement Guidelines. Bank Standard Bidding Documents and Standard Bid Evaluation Report will be used for ICB contracts.

6.10 Contracts for consultancy services estimated to cost below US\$0.2 million equivalent per contract to be procured by the private entities will be done through established commercial practices acceptable to IDA (Section 3.14 of the Consultants Guidelines). Large consulting assignments estimated to cost US\$0.2 million or more equivalent per contract to be procured by private entities will be done through competitive selection methods in Bank Consultant Guidelines. For these contracts, Bank Standard Request for Proposals (RFP) and Sample Form of Bid Evaluation Report will be used.

6.11 IDA will review private developers' procurement practices, including procurement manuals and processes, to conform to IDA transparency and efficiency requirements. The following requirements for IDA procurement prior review are: (i) all works and goods contract to be procured under ICB by private developers, and (ii) all contracts for procurement of consultant's services estimated to cost US\$ 0.2 million or more equivalent per contract to be procured by private developers. Contracts other than those mentioned above shall be subject to annual review by independent auditors selected by REA; audit reports shall be shared with IDA. IDA reserves the right to review private developers' procurement.

6.12 Detailed procurement arrangements for private sector will be included in the OG. The arrangements may be updated (subject to IDA's no objection) based on the implementation experience.

6.13 Details of contract packages to be procured under Additional Financing: Since it is not yet certain which subprojects will be financed, private developers' subproject proposals for their PFIs shall include a procurement plan, which will be reviewed by REA.

Annex 7: Environmental and Social Safeguards Framework

TANZANIA: Additional Financing - Energy Development and Access Expansion Project

7.1 TEDAP compliance with safeguards policies has been satisfactory. Additional Financing is expected to have an overall positive environmental and social impact through scaling up local rural/renewable energy generation. It is not expected to trigger any additional safeguards policies since the type and size of projects supported by the credit line are the same as those under the TEDAP's original off-grid component. Therefore Additional Financing will apply TEDAP's Off-grid Component instruments and procedures, including ESMF) RPF, and the Riparian Notification letter.

7.2 *Environmental/social impact and resettlement.* Additional financing is not anticipated to result in any additional potential negative impacts, and therefore will follow safeguards instruments approved under the original Project: the Environmental and Social Management Framework (ESMF) and the Resettlement Policy Framework (RPF) publicly disclosed on July 1, 2007.

7.3 *Projects on International Waterways.* To comply with OP 7.50, riparian notifications related to the original Project were sent on August 10, 2007 and no objections were received. Notifications describe potential types, numbers, and sizes of small hydro-electric projects equal to those supported under the credit line. Given that Additional Financing does not change the contents of the information already provided (it does not imply any further investments affecting international waterways and no new geographic areas or river basins have been added to the original list), it has been agreed that no additional notifications are required.

7.4 Under TEDAP Financing Agreement provisions, safeguards compliance responsibility for sub-Components B.1-B.3 has passed from MEM to REA, along with other implementation responsibilities. REA will also be responsible for reviewing and monitoring project developers' safeguards compliance for new sub-Component B.4. (Credit line). REA's capacity assessment was completed and specialists responsible for environmental and social issues were identified among REA's staff (a Sociologist/Public Relations specialist and an Economist with environmental background). They will receive additional training. If volume and/or complexity of subprojects increase, REA will also subcontract specialized consultants to evaluate and screen proposed investments to ensure adequate compliance, monitoring, and prompt implementation of project activities. Until REA capacity is fully built, a SIDA-funded Implementation Support Consultant will help REA perform environmental and social assessments. The REA capacity-building plan in the ESMF would be updated to reflect assessment results and agreed training actions.

7.5 The Project is a Category B-transferred Project, and Additional Financing is expected to retain this status. Under the ESMF screening process, a subproject could be determined to be Category A (or the national equivalent); in case of this unlikely event, the Project would be reclassified as Category A, and would seek Africa Safeguard Policies Enhancement (ASPEN) review of the subproject Environmental and Social Impact Assessment (ESIA).

Annex 8: Economic and Financial Analysis

TANZANIA: Additional Financing-Energy Development and Access Expansion Project

Financial analysis of SPPs

8.1 A financial analysis was carried out on a representative sample of four projects likely to access the credit. These projects are broadly representative of the potential credit line portfolio. However, each new project would need to be considered on its own merits. The four representative sample projects include a small hydro of 10MW, a mini-hydro of 1 MW, a biomass co-generation project of 10MW and a mini-biomass project of 1 MW. Three of these projects are selling a portion of the power they generate to the grid under SPPA/T and another portion to an independent mini-grid, with a separate retail tariff. The mini-biomass project is selling power to TANESCO's isolated grid (under the SPPA/T for isolated grids). Names of the projects are not provided due to the confidentiality of financial information.

8.2 A comprehensive financial model was developed that captures all elements of a robust commercial analysis, including construction periods, loan grace periods, cost and revenue inflation, distribution and collection losses, carbon credits, accelerated depreciation, and tax holidays, among others.

8.3 Project revenues consist of the tariff under the SPPA/T framework, retail tariff for projects that sell power directly to independent mini-grids, and carbon revenues.⁸ Revenues also include REA performance grants per connection, for projects that include mini-grid investments connecting new customers.

8.4 Project costs are based on actual proposed project cost estimates and international benchmarks if local cost estimates are unavailable. One striking feature of the cost structure is the high cost of transmission and distribution networks, even in the context of high-cost SSA standards. Lowering construction costs would benefit Project financial viability. The Project will include a low-cost distribution pilot that aims to develop new approaches to reduce costs.

8.5 The analysis assumes 15-year loan rate for projects. Hydro projects require this longer maturity to recover their higher capital costs. Biomass co-generation projects could yield attractive returns in 8-10-year loan periods.

8.6 The analysis yielded sub-project FIRR ranges from 11.7 percent for a mini-hydro project to 20.9 percent for a biomass co-generation project for main-grid projects. Equity FIRR ranges from 16.1 percent to 46.5 percent for the same projects. Projects selling directly to isolated mini-grids have even higher FIRRs due to substantially higher tariffs from displacing high-cost diesel generation.

⁸ Only 70 percent of carbon revenues are assumed, because small projects are likely to be viable only under an umbrella arrangement with an integrator, which would retain a revenue share.

Table 9: Financial Analysis Summary Results - Prospective TEDAP credit line

	Small hydro	Mini-hydro	Small biomass cogen	Mini-biomass Alt. A	Mini-biomass Alt. B
Size	10 MW	1MW	10MW	1 MW	1 MW
Capacity factor	55%	60%	80%	80%	80%
Annual output	45.77 MWh	4.99 MWh	66.58 MWh	6.66 MWh	6.66 MWh
Type of SPPA/T	main grid	main grid	main grid	Tanesco isolated grid	main grid
Independent mini-grid included?	yes	yes	yes	no	no
Number of mini-grid connections	600	600	600		
Costs					
Plant CAPEX	16.8 M US\$	2.6 M US\$	17.2 M US\$	2.45 M US\$	2.45 M US\$
Mini-grid	2.9 M US\$	0.8 M US\$			
Performance grant (\$500/connection)	0.3 M US\$	0.3 M US\$	0.3 M US\$		
Operating costs	0.78 c/kWh	0.81 c/kWh	2.6 c/kWh	4 c/kWh	4 c/kWh
Revenues					
Average tariff	0.071 US\$/kWh	0.072 US\$/kWh	0.071 US\$/kWh	0.28 US\$/kWh	0.071 US\$/kWh
Carbon revenues	0.014 US\$/kWh	0.014 US\$/kWh	0.014 US\$/kWh	0.014 US\$/kWh	0.014 US\$/kWh
Carbon revenue shares to the developer	70%	70%	70%	70%	70%
Financing					
Maturity	15 years	15 years	15 years	15 years	15 years
Grace period	2.5 years	2 years	1.5 years	1.5 years	1.5 years
Interest rate	15%	14%	16%	16%	16%
Project IRR	12.90%	11.70%	20.9	37%	5.70%
Equity IRR	18%	16.10%	46.5	130%	2.70%

*Mini-biomass alternative A refers to a project selling power to TANESCO's isolated grid. Alternative B refers to the same project selling power to the main grid. The analysis shows that the project is only viable if selling power to the isolated grid, with a higher tariff.

8.7 A detailed sensitivity analysis revealed that subproject cash flows have high sensitivity to the following factors: (i) carbon credit availability; (ii) tariff and cost inflation; (iii) capacity factor; (iv) construction schedule and cost overruns; (v) hydrology variability (for hydro projects); and (vi) interest rate fluctuations. It is therefore important that fluctuations of key variables which can be influenced by the project design (e.g. tariffs and interest rate) are minimized. Given the importance of carbon revenues for projects' financial viability, it is also important that REA and the Project assist developers to access carbon credit markets.

Economic analysis

8.8 The credit line is expected to yield significant development outcomes and impact. First, households will gain access to electricity, especially in the rural areas, which is expected to yield economic and social benefits for rural Tanzanians-improved health, education, productivity, and general well being.

8.9 Second, increased generation capacity, power supply diversification, and renewable technologies are expected to improve the reliability of grid electricity, particularly in rural areas. The recent World Bank Africa Infrastructure Diagnostic study estimates that load shedding and

emergency generation cost Tanzania over five percent of GDP every year.⁹ Studies also show that inadequate power supplies depress private sector productivity. Tanzanian enterprises suffer power outages 63 days per year on average, which cost them about six percent of turnover on average for formal enterprises, and as much as 16 percent of turnover for informal enterprises.¹⁰

8.10 Third, renewable energy generation is expected to displace fossil fuels, thereby contributing to global efforts to reduce CO₂ emissions and avert negative environmental and economic impacts of climate change. Finally, Additional Financing will contribute to local rural development, as most of the project sponsors are local rural SMEs.

8.11 Some of these economic benefits, although significant, are difficult to quantify, therefore, the economic analysis conservatively takes into account only quantifiable and verifiable benefits.

- *Displacement of higher cost fossil fuel generation.* It is assumed that most projects selling to the main grid will displace the thermal generation on the margin (the avoided cost is currently about US\$0.07 per kWh). However, this assumption does not take into account the high economic costs of frequent load-shedding, which renewable energy generation can alleviate. Therefore, it is assumed that one month per year SPPs will displace emergency diesel units (at US\$0.49 per kWh). This is a conservative assumption since surveys show that Tanzanian enterprises suffer 63 days of outages per year on average. Projects selling power to TANESCO's isolated grids have higher benefits since they are expected to displace higher-cost diesel generation.
- *Environmental benefits due to greenhouse gas emissions reduction* are priced per current carbon market conditions, resulting in US\$0.015/kWh in the Tanzanian context.
- *Household connection benefits,* are estimated as increased consumer surplus from improved lighting. Benefits are based on consumer surplus calculations for mini-grids carried out for the original TEDAP, based on household willingness-to-pay surveys. See original TEDAP PAD for details. TEDAP Project Appraisal Document estimates US\$170 annual benefits for lower-income households and US\$191 for higher-income households. It is assumed that about two-thirds of beneficiaries will be lower-income households, and one-third, higher-income households.

8.12 Economic analysis was carried out for the same four sample projects included in the financial analysis (See financial analysis for their description.). All projects exhibit very robust EIRR, ranging from 17 to 39 percent for projects connected to the main grid. Projects selling power to an isolated grid are more attractive economically because they displace expensive and polluting diesel generation.

⁹ Eberhard, Anton, Vivien Foster, Cecilia Briceño-Garmendia, Fatimata Ouedraogo, Daniel Camos, and Maria Shkaratan. 2008. Underpowered: The State of the Power Sector in SSA." Background Paper 6, World Bank, Washington, DC.

¹⁰ Foster, Vivien, and Jevgenijs Steinbuks. 2008, "Paying the Price for Unreliable Power Supplies: In-House Generation of Electricity by Firms in Africa." Policy Research Working Paper 4913, World Bank, Washington, DC.

Table 10: Economic Analysis Results

	Small hydro	Mini-hydro	Small biomass cogen	Mini-biomass Alt. A	Mini-biomass Alt. B
Size	10 MW	1MW	10MW	1 MW	1 MW
Capacity factor	55%	60%	80%	80%	80%
Annual output	45.77 MWh	4.99 MWh	66.58 MWh	6.66 MWh	6.66 MWh
Type of SPPA/T	main grid	main grid	main grid	TanESCO isolated grid	main grid
Independent mini-grid included?	yes	yes	yes	no	no
Number of mini-grid connections	600	600	600		
Costs					
Plant CAPEX	16.8 M US\$	2.6 M US\$	17.2 M US\$	2.45 M US\$	2.45 M US\$
Mini-grid	2.9 M US\$	0.8 M US\$			
Performance grant (\$500/connection)	0.3 M US\$	0.3 M US\$	0.3 M US\$		
Operating costs	0.78 c/kWh	0.81 c/kWh	2.6 c/kWh	4 c/kWh	4 c/kWh
Benefits					
Avoided tariff	0.109 US\$/kWh	0.109 US\$/kWh	0.109 US\$/kWh	0.496 US\$/kWh	0.109 US\$/kWh
Environmental externalities	0.015 US\$/kWh	0.015 US\$/kWh	0.015 US\$/kWh	0.015 US\$/kWh	0.015 US\$/kWh
Electrified households	177 p.a/hh	177 p.a/hh	177 p.a/hh		
Economic IRR	20%	17%	39%	94%	28.00%

*Mini-biomass alternative A refers to a project selling power to TANESCO's isolated grid. Alternative B refers to the same project selling power to the main grid. Alternative A yields high EIRR (94%) displacing high-cost, polluting diesel generation. In the isolated grid; this high EIRR, however, is exceptional. Most project EIRRs are expected to be in 15-40% range.

Annex 9: O.P. 8.30 Review

TANZANIA: Additional Financing-Energy Development and Access Expansion Project

9.1 *Macroeconomic framework.* Tanzania has made significant progress over the past two decades to achieve and maintain macroeconomic stability and become one of the best performers in SSA. Economic growth has been around 7.0 percent since 2000. In FY 2007/08 (July-June), economic growth exceeded 7.0. Sound macroeconomic policies, market-oriented reforms, and debt relief have provided an environment for Tanzania's steady economic growth. Monetary policy succeeded in controlling inflation and reduced it to single-digit levels throughout the last decade. Inflation averaged 5.8 percent during 2003-07, although it later accelerated due to high international oil and food prices, reaching 14.5 percent in December 2008 and slowly declining during 2009, to 12.2 percent in December 2009. As drought and food crises subside, and the relative weight of food in the Consumer Price Index basket declined from 55.9 to 44.3 percent, reflecting changed spending patterns, inflation is expected to fall back to single digits in 2010 (BOT estimates less than 8.0 percent). For the next five years, the International Monetary Fund (IMF) and World Bank forecast a 5.0-6.0 percent inflation rate.

9.2 The global financial and economic crisis is leaving its mark on Tanzania. The crisis is hurting Tanzania through exports - mainly tourism, cash crops, and regional manufacturing for export—and lower capital flows—foreign assistance and private investment. Overall, real GDP is expected to grow by 5.0 percent during 2009 (compared to 7.4 percent during 2008). In the external sector, following a sharp deterioration of the current account deficit in FY2008/09, which increased by about one-third to reach 13 percent of GDP - the current account position was projected to improve slightly during FY2009/10 to -11.6 percent of GDP, as the continued slowdown of export receipts is expected to be offset by the benefits of lower international oil prices and lower imports of goods and services.

9.3 The authorities reacted immediately to mitigate global financial crisis impacts by preserving expenditures as budgeted, providing a de facto moderate fiscal stimulus during FY08/09 by easing limits on net domestic borrowing, which increased from zero to about one percent of GDP. During FY09/10, Government will pursue additional fiscal stimulus, seek to maintain essential public expenditures, increase focus on agriculture, which is critical for poverty reduction, maintain medium-term infrastructure investment plans, and help mitigate economic and social impacts of the crisis, for example, through targeted support to the coffee and cotton sectors. In anticipation of a global recovery and assisted by the domestic response, growth was projected to rebound in the second half of 2009, to reach 6.0 percent in 2010, recover to historic growth rates of the last decade of around 7.0 percent by 2011, and accelerate to 7.5 percent by 2012 because the additional fiscal effort aims to improve Tanzanian infrastructure and agricultural productivity, thereby boosting private sector performance.

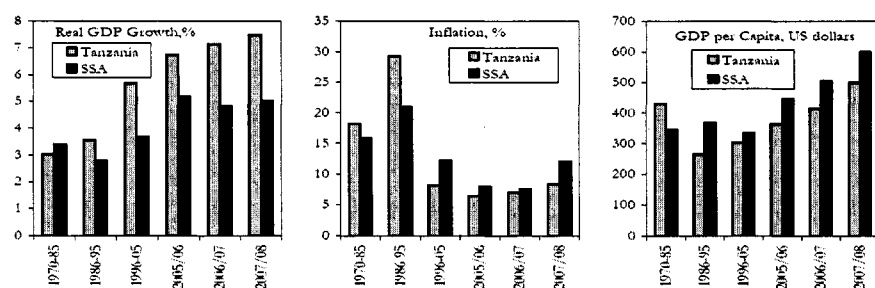
9.4 The authorities have maintained their excellent relationship with the IMF and benefitted from the IMF External Shock Facility (ESF), approved by the IMF executive board in May 2009 for SDR 218.79 million to assist the authorities in efforts to maintain an appropriate macroeconomic policy stance during the global financial crisis. The first review of the ESF, which coincided with the sixth review of Tanzania's Policy Support Instrument, concluded in December 2009 and exhibited a good track record of sound macroeconomic policies and

structural reforms. This strong macroeconomic performance has helped sustain high rates of economic growth with generally low inflation over the last several years, and created sufficient fiscal space to allow policy actions aimed at countering impacts of the global financial crisis.

9.5 Poverty indicators have improved, although progress is slower than expected given the strong growth performance; the poverty headcount ratio dropped from 35.6 in 2001 to 33.6 in 2007. Lack of infrastructure, including lack of energy in rural areas, is a contributing factor.

9.6 In conclusion, Tanzania has a stable macroeconomic environment that will facilitate the implementation of the proposed line of credit. The credit line aims to promote rural/renewable energy development driven by the local private sector. The proposed Project will support the country's economic growth and lay the foundation for additional poverty reduction, particularly in rural areas where most of the poor people live.

Figure 3: Tanzania and Sub-Saharan Africa - Macroeconomic Performance



Sources: Country authorities; World Bank World Development Indicators; IMF staff estimates.
 Note: SSA average is based on calendar year and excludes South Africa, Zimbabwe, Democratic Republic of Congo, and oil-producing countries.

9.7 **The financial sector.** The financial sector has undergone important reforms over the past decade; several banks have been privatized and other banks have entered the Tanzanian market, increasing efficiency and competition in the sector. Macroeconomic management and robust economic growth have facilitated commercial banks' credit expansion to the private sector from less than 6.0 percent of GDP in 2002 to 16.0 percent in 2008. Interest rates have declined and the government bond yield curve has lengthened, indicating a substantial deepening and improved functioning of the financial sector. However, challenges remain. Most banking sector business is concentrated in few large banks with nationwide branch networks and incomes derived mainly from loans and overdrafts, government securities, service fees, and foreign-exchange trading. The stock exchange - launched in 1998 - is constrained by the limited number of stocks and low liquidity. Despite progress, the government bond market also remains largely illiquid.

9.8 The banking system accounts for more than 80 percent of financial system assets and has grown significantly since 2003, but remains relatively small and dominated by a top tier of larger domestic legacy and foreign banks. The banking sector is highly concentrated; the three largest banks account for more than 50 percent of overall assets leaving smaller banks and new entrants unable to compete effectively.

9.9 Government has taken measures to strengthen the banking system and expand credit to the private sector. Financial legislation enacted in 2006 deepened the financial sector reforms and reinforced the autonomy of BOT and its role as supervisory authority. These reforms improved

the market competition, strengthened the banking sector and reduced the spread between lending and deposit rates.

9.10 In the context of the global economic crisis, the banking system remains sound but is vulnerable to credit risk resulting from the economic slowdown. Most of the 36 financial institutions that exist in Tanzania are well-capitalized, and none appears directly exposed to toxic assets. However, the economic slowdown is raising bank credit risk, notably through exposure to export crop financing. According to the end-June 2009 banking sector review carried out by the BOT, only four banks fell below the capital adequacy ratio (CAR) threshold of 12 percent. Non-performing loans (NPLs) averaged 7.67 percent across the banking sector in June 2009 and decreased to 6.4 percent in September. Fourteen banks had NPLs above the average of 7.67 percent, mainly due to their exposure to agricultural lending, which has accounted for a NPL ratio of almost 27 percent. The stress tests showed that, under worse credit risk, interest rate, or exchange rate conditions, six additional banks would fall below the CAR threshold. As of end-June 2009, only four of the 36 licensed financial institutions did not comply with BOT prudential provisions because the capital adequacy ratio fell below the minimum requirements of 12 percent.

9.11 The capital market was created under government liberalization measures adopted during the 1990s to mobilize Tanzanians' savings and channel them into long-term investments. However, to date, the Dar es Salaam Stock Exchange (DSE) has not played a major role in mobilizing resources for investment and long-term financing. The variety of financial instruments is limited in both corporate and government securities markets; capitalization levels and market turnover rates are low. Recently, the government bond market showed increased volume, but the secondary market is small and until 2009, was almost nonexistent. On the equity market, only fifteen companies are listed on the DSE and their market turnover is low at US\$26 million. Only seven corporate bonds exist, with maturities of five and seven years and no secondary activity. On the government bond market, secondary transactions are limited but primary market evolution indicates considerable demand for long-term investment. Bond interest rates, with maturities of two, five, seven, and ten years, have fallen since early 2009. Oversubscriptions for ten-year bonds were high, indicating a growing appetite among investors for longer-term instruments.

9.12 Government is implementing second-generation reforms to remove structural impediments to greater access to financial services, including medium- and long-term lending, strengthening prudential supervision and creating a more conducive environment for lending and financial sector development. In September 2009, a joint IMF-World Bank mission carried out the Financial Sector Assessment Program (FSAP) update. The recommendations of the mission, broadly shared by the authorities, focused primarily on the following:

- a) safeguarding financial stability through better risk assessment and crisis management frameworks;
- b) improving financial intermediation through improved credit information, creditors' rights and banking system structure;
- c) promoting long-term finance through capital account liberalization, capital market infrastructure improvements and a better regulatory framework for pension funds;

- d) deepening financial access by developing a financial inclusion policy and payment system improvements.

9.13 Overall, Tanzania's financial sector is stable and healthy, but despite major reforms it is still not in a position to provide adequate long-term funding. Being aware of this and other weaknesses in the financial sector, the Government has an agenda of reforms which it will pursue in the future.

9.14 ***Justification for Directed Credit.*** Despite Government pursuit of major financial reforms during the past decade, local commercial banks have limited capacity to provide long-term financing to meet investment needs for rural/renewable energy projects, and this was exacerbated by the global financial crisis. As stated above, Government is implementing reforms to address underlying causes of long-term funding shortfalls, but results are expected only in the medium- to long-term. Therefore, the proposed directed credit in the form of a line of credit to address long-term liquidity needs in the energy sector is justified.

9.15 ***Eligible financial intermediaries.*** The success of TEDAP credit line depends largely on the ability of the Project to leverage well-performing Tanzanian PFIs to deliver funds effectively and efficiently to viable subprojects. Bank policy requires assurance of PFI viability based on the following: (a) adequate profitability, capital, and portfolio quality; (b) acceptable level of loan collections; (c) appropriate capacity, including staffing, to carry out subproject appraisals, including environmental assessments, and (d) appropriate prudential policies, administrative structures, and business procedures. The PFI eligibility criteria will be based on these principles.

9.16 Specifically, participating PFIs must comply with BOT prudential regulations, including minimum capital adequacy ratio, exposure limits to one person/party, acceptable liquid asset ratio, appropriate loan-to-deposit ratio, adequate net open positions in foreign exchange and funds placement in foreign banks abroad; in addition, PFIs must have an acceptable ratio of non-performing loans to total loans. These criteria cover the requirements set out in OP 8.30. The BOT will provide PFI compliance status on these criteria and confirm PFI eligibility at TIB's request. In addition, participating PFIs must demonstrate adequate risk management policies, appropriate corporate governance practices, and adequate capacity to underwrite and manage credits. The assessment of these three aspects will be carried out upon PFI expression of interest to participate in the credit line. Detailed PFI eligibility criteria are specified in the Operating Guidelines.

9.17 At least three large commercial banks have confirmed strong interest in financing SPPs if they can access the credit facility. Initial assessment of these institutions demonstrated high potential to comply with eligibility criteria. Most commercial bank loans in Tanzania are for one or two years because the main source of funding is time deposits, which are typically one year or less. Longer-term loans of up to seven years are rare.

9.18 Banks estimated that projects of 15MW could be available for financial closure in FY10, which has not been possible due to lack of access to longer-term finance. Banks expressed interest in SPPs as an opportunity to diversify their portfolios, which are now concentrated in sectors that are cycling through economic downturns, such as agriculture, tourism, and transport.

The Project regulatory framework, in particular SPPA/T, also expands bank comfort because SPP revenues would be predictable.

9.19 ***On-lending terms.*** The on-lending terms for PFIs loans to project developers would be market-based; PFIs can select their own rates and maturities.

9.20 On-lending terms from Government to participating PFIs will be set in accordance with OP 8.30. In determining these on-lending terms, IDA aims to provide affordable resources that can be on-lent profitably. Since most of renewable energy project revenues are fixed, stable on-lending terms are crucial to successful outcomes, and to Government, which covers currency risk and the risk of PFI default from the spreads between IDA terms and TIB loan interest rate. However, on-lending terms must not undermine incentives to develop more permanent sources of longer-term funding.

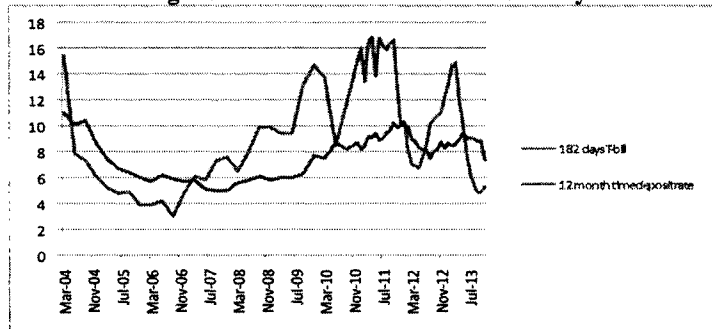
9.21 International lessons learned from other renewable energy credit lines underscore that a simple design is crucial to enable banks to undertake this new business line of renewable energy projects and gradually develop their expertise. On-lending operation design must also be simple and on terms favorable enough to allow PFIs to cover the additional costs and risks associated with World Bank safeguards and fiduciary compliance.

9.22 The credit line can be designed to offer variable and fixed rates; currently it is difficult to establish a market benchmark for fixed-rate lending so the credit line will be initially offered only at variable rates.

9.23 Two potential benchmarks to determine on-lending terms for variable-rate loans were analyzed: time deposits and T-bills—both are acceptable benchmarks under OP 8.30. Deposits are the main funding source for commercial banks in Tanzania; therefore, time deposit rates reflect the cost of funds mobilized by local commercial banks and ensure that the proposed credit line does not undermine the banks' main source of funding. The time deposit rate has been less volatile than that of the T-bill, and the weighted average time deposit rate is the benchmark in similar IDA credit line projects, including Sri Lanka, Vietnam, and Uganda. On the other hand, the 182-day T-bill is a common PFI benchmark for on-lending to final borrowers, and it is the most liquid government security. However, the 182-day T-bill has been highly volatile (Figure 4), and renewable energy projects require steady predictable rates because revenues are fixed in tariffs.

9.24 Therefore, the Project will use the time deposit rate as the initial benchmark for the credit line pricing. A spread aimed at covering administrative costs to mobilize time deposits and the implicit cost of reserve requirements will be added. Details on the initial formula to calculate Government loan interest rates to PFIs will be specified in the OG.

Figure 4: Benchmark Historic Volatility



9.25 This type of credit line is a first for Tanzania; therefore, it requires flexibility in adjusting on-lending rates, including the benchmark used, depending on financial market developments. Consequently, an annual review mechanism is proposed, starting six months after Project effectiveness; the mechanism would assess market reaction to proposed pricing, take into account recent financial market developments, and recommend any changes needed in pricing methodology. An independent consultant will conduct the review under Steering Committee supervision.

9.26 Within this review mechanism, efforts will be made to establish a fixed-rate on-lending option, which is ultimately what renewable energy projects require. In this context, the Project will explore innovative financing instruments as incentives for banks to extend fixed-rate loan maturities. The standby liquidity option designed under the Energy for Rural Transformation Project in Uganda II could be a useful model. In Uganda, PFIs use their own resources to provide medium-to long-term financing at existing market terms. Five to seven years after loan origination, PFIs can opt to use the standby facility and refinance for another five to seven years if they cannot refinance themselves. This provides a de facto loan term extension to 10-14 years, ensures incentives for banks to use their own resources for lending, and addresses other risks related to renewable/rural energy projects such as the construction risk. This innovative financing scheme in Uganda will be monitored, and if successful and market conditions permit, the Project will explore introducing a similar scheme in Tanzania.

9.27 On-lending terms, including pricing methodology, benchmarks, and review mechanisms will be specified in the OG.

9.28 *Long-term vision.* This will be the first attempt to address financing barriers for renewable and rural energy projects in Tanzania. TEDAP has already addressed other constraints to renewable energy development, namely policy, regulatory and capacity barriers. The credit line is the logical next step in systematically establishing a long-term sustainable market for renewable energy development. The credit line will: (i) demonstrate commercial viability of renewable energy investments; (ii) build key stakeholder capacity to develop and finance renewable energy projects using Project support for technical assistance to SPPs, PFIs and TIB. The renewable energy market development will be carried out in parallel to energy and financial sector reform programs, which are expected to boost the viability of the Tanzanian SPP program.

9.29 The draft Power Sector Reform Strategy proposes key institutional, policy, and regulatory reforms, including creating an enabling environment for private sector participation, adjusting

tariff policy, and promoting market-based pricing, among others. In this framework, Government is committed to ensure long-term financial sustainability for TANESCO. Government developed a Financial Recovery Plan (FRP) for TANESCO to restore complete financial sustainability through tariff increases and loss reductions (See Annex 10). Implementing these reforms would strengthen the SPP regulatory framework and significantly reduces SPP and PFI risks.

9.30 Financial sector reforms, among others, target development of long-term finance in Tanzania. First, the authorities adopted a plan to sequentially liberalize the capital account. . Second, results from an International Organization of Securities Commission (IOSCO) based assessment conducted by the Capital Market and Securities Authority will underpin reforms to strengthen Tanzania capital markets, focusing on capital market infrastructure. Third, a Government debt joint IMF-World Bank project plans to strengthen Tanzania debt management and tackle rigidities that impede development of the government bond market. Fourth, Tanzania is about to set up a new mortgage refinancing facility for lender access to long-term finance. Finally, the country plans to reform the regulatory framework of the pension funds, which are important to the long-term finance market.

9.31 The Project will follow these reforms closely; the SPP framework and credit line design will be assessed and adjusted periodically to reflect new market conditions, with a goal of achieving a sustainable commercial market for renewable energy in Tanzania.

9.32 *Cooperation with the International Finance Corporation (IFC)* will complement the IDA-financed credit line with IFC mezzanine financing; the IDA credit line addresses long-term funding essential for renewable energy projects, and IFC mezzanine financing addresses Tanzanian banks' high equity requirements, typically 40 percent¹¹. The IFC mezzanine financing product was piloted in the Eastern Europe and is currently expanding to other regions, and East Africa is being considered.

9.33 *Use of IDA Funds*. Funds will be disbursed against eligible expenditures for goods, works, and services as per standard Bank disbursement policies and in compliance with OP 8.30. REA will monitor subproject compliance with eligibility criteria specified in the OG concerning the type of technology used for electricity generation, installed capacity, and type of rural electrification projects. REA will supervise subproject compliance with environmental and social safeguards, and application of procurement procedures.

9.34 *Monitoring*. Monitoring arrangements are in Annex 2.

¹¹ In a mezzanine facility, IFC provides subordinated loans to eligible (currently: hydro/wind/PV) small-scale renewable energy projects via a local bank. The Bank is lender of record for IFC's subordinated loan and can extend the loan for IFC's risk without any further IFC approval if a project meets simple and clearly defined financial and technical criteria. As the Bank can treat IFC's subordinated loan as project equity, the subordinated loan improves all equity related financial ratios and enhances the credit risk of supported projects, i.e. the mezzanine facility can substitute lacking project equity and make projects bankable.

Annex 10: Long-term financial sustainability of TANESCO

TANZANIA: Additional Financing-Energy Development and Access Expansion Project

10.1 TANESCO faces multiple challenges to provide Tanzania's expanding number of households, institutions, and businesses with a reliable power supply. TANESCO's main challenges are: (i) to achieve financial sustainability through a combination of tariff increases and loss reduction strategies; (ii) to upgrade key transmission and distribution infrastructure, weakened by a history of underinvestment and deferred maintenance; (iii) to improve customer service, business systems, and processes; and (iv) to build capacity and human capital. The TEDAP is assisting TANESCO by supporting major rehabilitation and upgrading works for existing transmission and distribution infrastructure. In addition, the TEDAP supports procurement of goods and technical assistance to improve customer service, business systems, and build capacity.

10.2 Government is committed to TANESCO achieving financial sustainability. A 2007 Financial Recovery Plan (FRP) aims to restore TANESCO's financial integrity, improve network technical integrity, reduce losses, increase available generation capacity, and enlarge its customer base thereby boosting revenues.

10.3 The 2007 financial statements show that electricity sales increased by 26 percent compared to Fiscal Year 2006, which has enabled the utility to improve its overall gross margin, as a percentage of sales, from -56 percent in 2006 to -32 percent in 2007. The biggest cost contributor remains electricity purchase costs from Independent Power Producers—63 percent of total operating expenses (64 percent in 2006). Despite these improvements, TANESCO continues making losses with a Net Loss of TZS -67.2 billion. In 2008, due to good rains, TANESCO was able to meet most of its operating expenditures, but a late-2009 drought worsened the situation. However, the overall improvement trend of TANESCO's financial situation is expected to continue during 2010. Collection rates have remained high at 94 percent on average, but energy losses also remain high at 24 percent on average, emphasizing the urgency of overdue transmission and distribution rehabilitation works.

10.4 Despite a 24 percent increase in revenue terms in January 2008, electricity tariffs barely meet operational expenditures (except for all hydro/gas generation); tariffs provide about 60-65 percent of full electricity supply costs. Until electricity tariff levels become reasonable, if not full cost-recovery, the sustainability of new investments and commercial viability of TANESCO are at risk. The current situation is largely caused by the fact that until 2007 tariffs had not been adjusted for rising power generation costs or domestic inflation for some time. This trend has changed in 2007 when Government adopted the Financial Recovery Plan; then in 2008 EWURA, the new energy regulator, authorized an unprecedented tariff increase of 21.7 percent. TANESCO is now preparing an application for another tariff increase, expected to be filed in early 2010. If a large share of TANESCO's requested increase is accepted, the risk is diminished that it will be unable to pay SPPs for energy purchased under the SPPA.