Tanzania Energy Development and Access Project (TEDAP) and SPPs

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TEDAP – background at appraisal

- Tanzania electrification rate : 14% overall, less than 3% rural
- Total installed capacity: about 1,200MW
- History of power shortages
- National utility (Tanesco) not able to expand quickly enough (technical, financial and human resources constraints)
- Mapped renewable energy potential - but remain theoretical
- Supporting policy and institutional framework for rural electrification and renewable energy (REA recently established)

Good **potential** to address both power generation and access deficits through **renewable energy SPPs**

BUT

- Regulatory
- Financing
- Capacity limited, particularly in remote rural areas
- Institutional – coordination among stakeholders

Project to focus on an **enabling environment**

TEDAP

• **The objective** is to improve the quality and efficiency of the electricity service provision and to establish a sustainable basis for energy access expansion and renewable energy development in Tanzania

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On -grid component	Off -grid component
Improving service quality and efficiency of Tanesco	Facilitating framework, grants and TA for new connections by third parties (private sector, communities, NGOs) + Additional financing to establish a credit line
	- SPPs selling power to Tanesco's main grid (+ retail?) - SPPs selling power to Tanesco's isolated mini-grids (+ retail?) - SPPs – greenfield mini-grids - Solar PV institutional and household systems

(SPP = small power projects)

TEDAP off-grid component

About the program	
What is TEDAP offgrid component?	A program launched by Rural Energy Agency (REA) supported by the World Bank and Global Environmental faciitlity to help develop offgrid and renewable energy projects in Tanzania. The off-grid component has USD 22.5Mn allcoated to improve rural electricity access, promote renwable energy projects and small scale solar market development in Tanzania. The program also has technical assitance funds allocated to build capability for private sector (Banks and developers) in Tanzania to develop renewable energy projects
What is TEDAP Credit Line?	provides long term (15 years) source of funds to financial institutions that lend to eligbile rural or renewable energy projects. The program is administered by TIB (Tanzania Investment Bank) on behalf of Ministry of Finance under the direction of REA and BoT.

TEDAP

Benefits under TEDAP - Technical Assitance	
Matching Grants	Provide technical assistance to developers and private financial institutions to hire renewable energy / financial / engineering experts to help with your project .
Connection Performance Grants	Upto 500$ / connection in rural areas that currently do not have grid access; Covers maximum of 80% of the transmission and distribution costs of a project including HV / LV lines; meters and providing access points; includes connections to households, businesses and institutions; **Grant schedule:** 40% Disbursement upon signing agreement; 40% disbursement upon materials at site; 20% disbursement upon completion of the works.
Benefits under TEDAP Credit Line - Get long term loans (upto 15 years) for your project	
Loan Refinancing facility	Banks that lend to your project can get upto 70% of your project loan (85% for projects <3MW) refinanced by MoF credit line; upto 15 year loan terms;
Interest Rates	Banks can borrow at interest rates that are linked average of BoT term deposit rates; current rate is between 8-9% and this is revised every six months; These rates are periodically update by TIB in their and REA's credit line program website. The actual interest rate to the project is determined by the banks based on the perceived credit risk of your project.

Tanzania has necessary enabling regulations in place to promote private sector investment in renewable energy

- Both domestic and international investments in energy generation permitted
- Standardized Power Purchase Agreements (SPPA) exist for projects to feed <10MW to the grid, enforced by EWURA the independent regulator
- SPPA purchase terms based on avoided costs, calculated by EWURA every year with minimum and maximum bands
- Rural Energy Agency (REA) setup and functioning for over 4 years
- Private sector can enter into direct distribution in off-grid areas; $500USD per rural connection subsidy provided by REA
- Carbon credit PoA in preparation

There is a healthy pipeline of current projects in Tanzania

- About 76 MW of projects with SPPA contracts or LoI signed with TANESCO (24 MW SPPA signed), many additional projects in development. Likely potential 100-200MW in the next 10 years. Main issue: high bank equity requirements.

Projects	Installed Capacity (MW)	Sale to TANESCO (MW)	TANESCO SPPA status
TPC Moshi sugar cogen	17.5	9	Contract Signed
Tanwat (biomass)	2.5	1.4	Contract Signed
Mwenga Hydro (Mufindi)	4	3	Contract Signed
Ngombeni Power (Mafia) biomass	1.4	1	Contract Signed
SAO Hill Energy (biomass)	15.75	10	Contract Signed
Kitonga Hydro (Iringa)	10	7	In Discussions
Mapembasi Hydro (Ruhudji)	12	9	In Discussions
Ndola Hydro (Ruhuhu river)	10	9,5	In Discussions
Kilombero sugar co-gen	3	2	In Discussions
Totals	76 MW	52.5 MW	

Sample New Projects under TEDAP

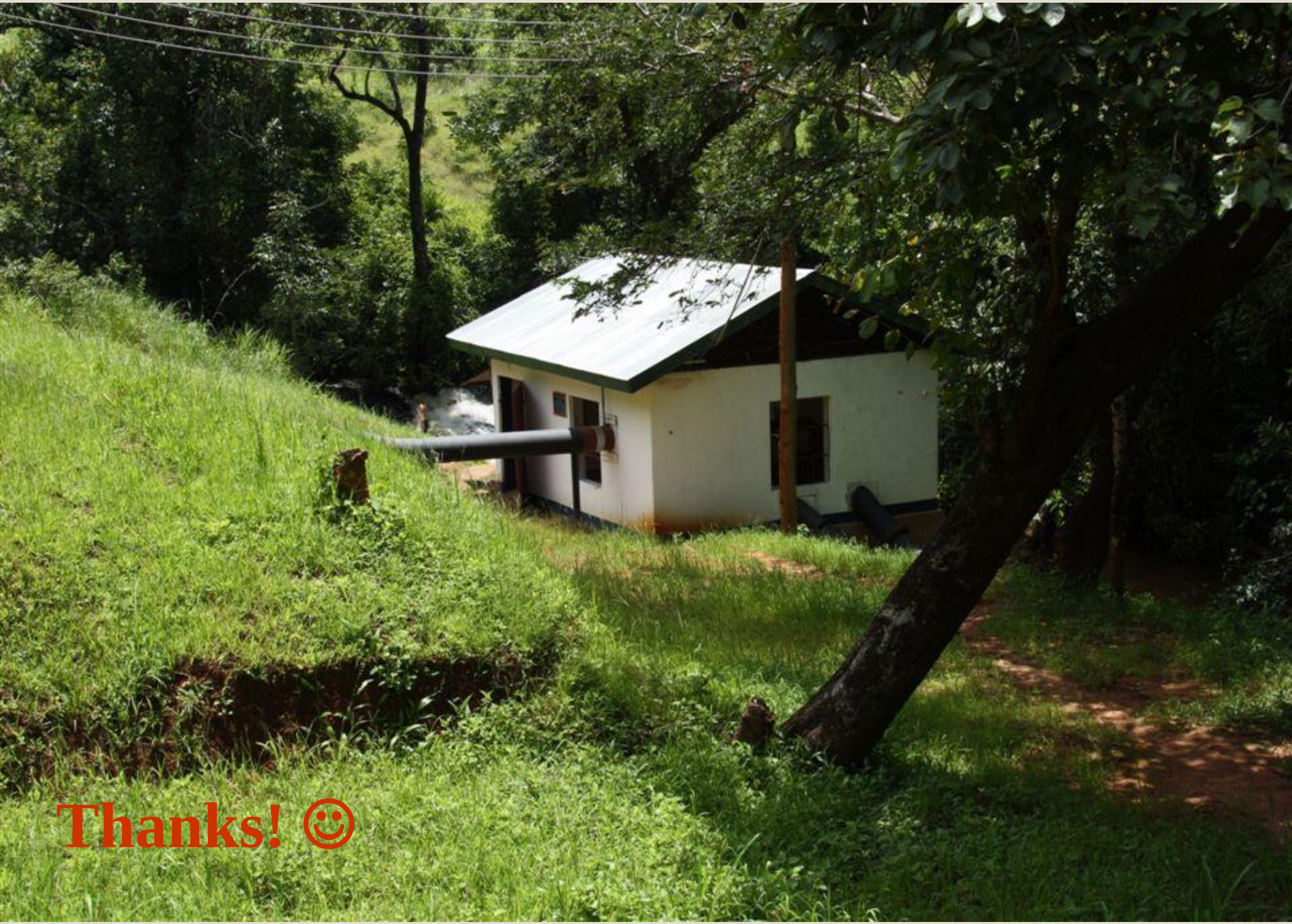
Small -Offgrid project example

- 500 KW, Mbinga Mtambazi SHP (Ruvuma), hydro project by a rural entrepreneur Andoya Hepo.
- Project in conception from 2003. Currently in financial closure stage with local commercial banks leveraging the Credit line program
- Benefiting 900 households in 3 off-grid villages. Also meeting 60% of the demand of local diesel operated TANESCO mini-grid (about 400K USD in diesel fuel cost savings an year for the utility)

Larger grid connected project example

- 12 MW Kilocha (Ruhudji) SHP (Iringa) project promoted by local community leaders and entrepreneurs in Njombe
  - Connecting estimated 1,500 rural households and exporting 9MW to the grid
  - Project currently in preparation stage. Need carbon credits both to become commercially viable and also get initial seed equity for the project

- 4 MW Mwenga Hydro Ltd by Mufindi Tea Company, a large local commodity company
  - 3MW supplied to grid, 1MW for internal use and supplying nearby villages
  - Project has reached financial closure and is commencing construction. Will start operations in 2011


Thanks! ☺