

»» Energy Access: Experiences of KfW Development Bank

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Workshop: Empowering Rural Electrification

EU-Directorate General for Development and Cooperation – EuropeAid

Brussels, 29 September 2014

Bank aus Verantwortung

KFW

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»» Energy Access at KfW

Portfolio and Activities

- › KfW is supporting the German Government in achieving its objective to provide an additional number of 100 mill. people with access to modern energy until 2030
 - › In 2013 we have improved access for 1.5 mill. people (conservative approach) / more than 6 mill. people (common approach)
 - › Project-portfolio mostly on access to electricity, but activities to improve access to modern cooking energy is increasing (biogas, LPG)
- › KfW is engaged in the international debate on the definition of energy access and methodologies for tracking energy access within the SE4All - Global Tracking Framework
- › Member of the Partnership Group for the Status Energy Access Report being developed under the aegis of SE4All-Knowledge Hub & the leadership of ESMAP/World Bank
- › Support the German Government in its role as one of the priority partners / lead donors for the energy access pillar of the SE4All-Initiative in Bangladesh



»» Energy Access – More than “typical” Access Projects

Methodological Lessons Learnt

- › In the past, mostly only typical access projects were considered to have impact
- › other energy projects may have impact on improving access → win-win-situation

	Project Type	Grid Connections	Legality	Peak Capacity (W)	Duration (Hrs)	Evening Supply	Quality (Voltage)	Reliability (Outages)	Affordability
Typical Energy Access Projects	Grid Electrification	↑	↑	↑	↑				↑
	Mini-Grid Electrification	↑		↑	↑	↑	↑	↑	↑
	Off-Grid & Solar Lanterns			↑	↑	↑		↑	↑
Other Energy Projects	Generation & X-Border T/M	↑			↑	↑	↑	↑	↑
	Transmission & Distribution	↑	↑				↑	↑	↑
	Rural Feeder Segregation		↑		↑	↑	↑	↑	↑
	Energy Efficiency			↑	↑	↑			↑
	Regulations & Market Reform	↑	↑	↑	↑	↑	↑	↑	↑

↑ Positive impact of energy interventions on energy attributes

Source: M. Bathia / World Bank

»» KfW Project Examples – Lessons Learnt

Improving Rural Electricity Access in Mozambique

› Approach:

- › Financing of a 110/33/22-kV substation, a 80 km 33-kV-transmission line & LV distribution network
- › Partner: Electricidade de Mozambique (EDM)
- › German Contribution: 3.6 mill EUR

› Impact:

- › Improved lighting, productive use (maize-mills), access to banks, education and health services, ...

› Challenges:

- › demand, esp. for productive use, lower than expected
- › poor consumers pay social tariffs → low revenues
→ without subsidies investment not (yet) financially viable



»» KfW Project Examples – Lessons Learnt

Improving Rural Electricity Access in Uganda

› Approach:

- › Financing of 2 SHPPs; rehabilitation & extension of MV- / LV-network; introduction of pre-paid meters; capacity building (productive use & electricians, with GIZ)
- › Partners: WENRECO & UEGLC
- › German Contribution: 30.4 mill EUR + 3.2 mill EUR from EU ACP-Pooling Facility



› Impact:

- › 8 MW additional capacity; 400 km new lines; stable supply for 60,000 newly people & 40 commercial centres connected; 76% of electricity consumption is for productive use; better customers services; less electricity theft

› Challenges:

- › PPP-contract negotiations; grants required due to low tariffs; adequate timing of investments: need for capacities prior to network-connections

»» Conclusions

- › UN-SE4All-Initiative has helped to bring energy access back on the political agenda
- › With respect to the calculation of achievements towards the goal of universal access to modern energy for all, further details will have to be specified, especially with respect to ex-ante calculations
 - › KfW with GIZ will organise a workshop to this end in early 2015
- › Major challenges in the implementation of energy access projects:
 - › Low tariffs & low demand due to small density of customers mostly make some form of (smart) subsidies necessary
 - › Whenever possible, support programmes should include accompanying measures to increase productive use



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