

EU Funding for Energy Access in Sub-Saharan Africa

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Produced as part of “Energy for All”
An EC funded project



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1. Energy Access for the Poor and Poverty

The lack of energy access for billions of poor people in the world is a big concern among the world's major development agencies (World Bank, UN, EEC and others). It is felt that without access to modern energy people cannot escape from poverty and the Millennium Development Goals will not be achieved. The UNDP, in its Energy and Sustainable Development Overview¹ states “None of the Millennium Development Goals can be met without major improvement in the quality and quantity of energy services in developing countries”. This statement is especially true for the Sub-Saharan African Countries, where energy access for the poor is the lowest

¹<http://www.undp.org/energy/>

among of all regions in the world; in fact, of 30 Sub-Saharan African countries, only 14 are on course to reduce the number of people living with hunger by at least 25% by 2015².

The International Energy Agency shows that by the end of 2009³, energy poverty still reached vast proportions of the world's population. About 1.44 billion people had no access to electricity - and were therefore deprived of many opportunities to generate income and employment and access to other basic services such education, health and education - and more than 2.5 billion were cooking with solid biomass fuels (wood, dung, etc), the great majority of them using simple, inefficient and polluting stoves, exposing them to respiratory diseases. In Sub-Saharan Africa, energy poverty is particularly acute, with 585 million people - 70% of the total population - without access to electricity and more than 90% cooking with solid biomass.

The financial gap to provide energy access for the poor is large. The UN estimates that the capital investment to make possible universal energy access for "basic human needs" is \$35-40 billion per year to 2030⁴. It estimates that this would require grant funding of \$10-\$15 billion and loans of \$20-25 billion, with the difference being funded by the countries themselves. The European Union has expressed concerns around the financial challenges to energy access for the poor in several forums. To respond to unmet needs for energy services, it launched the EU Energy Initiative (EUEI) for Poverty Eradication and Sustainable Development during the WSSD in 2002⁵.

If the plan proposed by the UNDP is to be achieved, more commitment is required from all actors. Funds from donors need to increase and be better targeted to reach the poor and

²<http://www.uneca.org/mdgs/goal1.asp>

³<http://www.worldenergyoutlook.org/electricity.asp>

⁴<http://www.un.org/spanish/millenniumgoals/pdf/AGECCsummaryreport%5B1%5D.pdf>

⁵http://www.inforse.org/europe/eu_einitiative.htm

isolated; more private investment needs to be made in small-scale decentralised energy schemes, moderating the current expectations for very high short-term profit margins and securing longer-term sustained benefits; and governments need more political willingness, stability and action prioritising energy access for the poor in public expenditure plans. Governments can also mobilise local capital (indigenous capital) by facilitating adapted mechanisms and partnering with local entrepreneurs such as villagers and small businessmen

2. The EC cooperation on energy access for the poor

The European Union - the largest funder, with about 50% of the world funding cooperation - has shown political commitment regarding energy access for the poor in developing countries and particularly in Sub-Saharan Africa. The funds from the EU come from two sources, bilateral aid and EC cooperation. The contribution from the EC to energy access for the poor during the last decade has been limited, neither the 9th nor the 10th EDF (European Development Fund) have allocated funds explicitly for energy access for the poor, but rather only as a component of infrastructure.

The only existing EC funding mechanism specific for energy access for the poor is ACP-EU Energy Facility, established in 2005 as part of the EUEI. The Energy Facility is a co-financing instrument to support projects on increasing access to sustainable and affordable energy services for the poor living in rural and peri-urban areas in African, Caribbean and Pacific (ACP) countries. The priorities of this fund are based on the recommendations of the EUEI "Energy for Africa Conference" held in Nairobi in November 2003, which was

attended by government representatives from about 40 Sub-Saharan African countries⁶.

These priorities are:

- Rural energy in general, and in particular rural electrification;
- Energy for households, biomass and substitutes;
- Strategies and policies for the sector, both at national and at regional level; and
- Capacity building at all levels.

The key principles guiding the use of EF financial resources were agreed as:

- Targets - Financing should be aimed at the achievement of the MDGs in the ACP countries;
- Ownership - The implementation should be the result of the on-going Poverty Reduction Strategy process;
- Flexibility - There should be a flexible approach to financing and an openness to joint financing with Member States active in the sector, along with the ability to cooperate with lending institutions, the private sector, public utilities and civil society;
- Innovation - To develop innovative answers to the challenges of delivering sustainable energy services to the poor, including new types of financing with diverse sources of funding (local/international, private/public), paying special attention to the use of energy for production and income generation, and new and cross-sectoral approaches.

⁶<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0711:FIN:EN:PDF>

3. How the ACP-EU Energy Facility has performed against its priorities and key principles

The EUEI has so far launched two ACP-EU Energy Facility (EF) budgets. The first EF was launched in June 2006, with a total budget of €220m; its resources were allocated through a call for proposals. That call considered four priority components: *Small-scale initiatives*; *large infrastructure projects*; *Improvement of the management and governance of energy*; and *Improvement of cross-border cooperation in the energy sector*.

The second EF budget of €200m was divided into two calls; the first call was launched in November 2009 for a total of €100m, and second call expected to be announced in 2011 for a total of €50m, with the remaining €50m to be spent through other channels. Unlike the first EF budget, the first call of the second EF budget focused on two components only: *Increased access to energy services in rural and peri-urban areas*; *Improving energy governance and capacity building*

Performance of the first EF budget- Within the first EF budget, the EC funded 74 projects (after a successful response with different ACP implementing actors submitting 307 projects) with a total investment of €198m. The allocation of resources was as follows: €48m to small-scale initiatives (less than 25%), €118.8m (60%) to large infrastructure projects, €10.58m to governance projects (mainly through central governments), and €8.57m to the improvement of cross-border cooperation.

The allocation of the resources according to actors also shows that the largest portion of the funds has gone to government bodies (€118m), followed by the private sector with (€82m), and finally NGOs with €33m. This allocation demonstrates that the EC has diverged from its stated priority areas; only 25% of the funds were invested in small-scale energy projects, whereas 60% of the funds were invested in large infrastructure.

The main applicants (and hence implementers) for small-scale projects have been NGOs, with projects such as small-scale electricity generation, cooking fuels and cooking technologies, while the other actors (government bodies and the private sector) applied mainly for large scale projects, including power plant development and improvement or extension of electricity distribution lines. The results of the first Energy Facility also show that NGOs from both ACP and EU countries are the major proponents and implementers of small-scale decentralised energy projects, with 26 out of 74 projects. See Box 1 for an example of a successful NGO-driven Energy Facility-financed initiative in Kenya.

The Developing Energy Enterprises Project (DEEP) East Africa, led by GVEP East Africa, is a five year initiative established to provide the crucial support necessary to enable the development of a sustainable and widespread industry of micro and small energy

enterprises in Kenya, Uganda and Tanzania. The project seeks to address the constraints and challenges faced by energy entrepreneurs, especially the lack of business and technical capacity and inadequate access to finance. DEEP supports the development of energy enterprises formed by, and for, rural and peri-urban entrepreneurs by assisting them with the identification of viable energy market opportunities, technology options, and service structures to generate revenue and sustain business. DEEP will also assist entrepreneurs through training and mentoring to develop business plans and access the necessary financing thereby enabling businesses to survive and grow sustainably.

The overall objective of the project is to increase the availability of sustainable, affordable and appropriate energy services to those unserved or underserved in rural and peri-urban areas of Kenya, Tanzania and Uganda. Specifically, the project seeks to

Box 1: Case Study – DEEP East Africa Facilitates Kenyan Entrepreneur

Twenty years ago, Samuel Njagi sold a cow to get the money he needed to start up a small metal business in the town of Mariakani in Kenya's Coastal Region. Today, with the help of DEEP EA, he is on the verge of an exciting new venture. Samuel has developed his own energy business with support from DEEP EA. CRSP-K provided him with the design for a gasifier stove which Samuel had heard could produce charcoal while simultaneously cooking food. Using his metalworking skills, Samuel replicated the stove and added this to the stock of cooking pans and metal and ceramic-lined stoves he already has for sale at his simple site just 10 metres from the Mombasa-Nairobi highway. Samuel makes an average of KES 6800 profit each month (~US\$85).

In addition, Samuel has been linked to another of DEEP EA entrepreneur BICODE a 20 km east of Mariakani, to train local artisans on gasifier stove production. These stoves will be used by the rural community to produce char from coconut tree waste in order to make briquettes. Over the last year Samuel has trained three artisans who have fabricated over 153 gasifier stoves; of which BICODE have sold over 27 to the community. DEEP EA has helped BICODE, which mobilises local people to protect and conserve the environment and to become self sufficient through the production and marketing of coconut, aloe, jatropha and neem tree products, to identify and install an electric briquette-making machine. They have since had their briquettes certified by the Kenya Bureau of Standards and production has started in earnest. DEEP EA project staff continue to assist Samuel to strengthen his business and have linked him to rural communities in Kinango district to train them on installation of Kuni Mbili stoves. Further he has been advised on quality improvement of his products, reviewing the price of his gasifier stove to make it more affordable and on community based organisation in Kaloleni, diversification to other improved cooking stoves such as sawdust stoves.



enable the development of a sustainable and widespread industry of micro and small energy enterprises providing energy services and employment. So far, approximately 1266 entrepreneurs have been trained by the programme of which 715 were active as of December 2010. A total of 168 business mentors have been trained and are active and 502 Technology follow up sessions were conducted during the last 3 quarters. A total of 11 entrepreneurs have accessed financing for their businesses with facilitation from the DEEP project and 63 in the process of doing so.

This success story is just one of many and the project has set some ambitious targets. By the end of the project period, the DEEP EA programme aims to have facilitated 1800 energy enterprises to start up, diversify or expand into providing energy services and to have trained 300 business mentors. By 2012, 1.8 million people accessing energy products and services from the supported businesses and 1300 households will be receiving income from employment generated by these enterprises. The knock-on effect of this project will be significant; by the close of the programme, it is expected that 1300 households will be receiving incomes from employment in enterprises which have been enabled by energy services provided by the DEEP-supported energy enterprises.

Performance of the second budget (first call (first call €100 Million) - Statistics of the European Aid Development Cooperation show that a total of 65 project had been approved, of these 54 belong to priority (1) increased access to energy services in rural areas and peri-urban areas with a share of 88% of the funds allocated by the EC, and 11 projects belong to priority two with an allocation share of 11.2% of the EC funds. The statistics also show that funds allocation has a quite good spread within the poorest countries in Sub-Saharan Africa.

The allocation of this call according to actors had been completely different to that of the first EF-budget, in this case the most important recipient of this call being the Civil

Society with a share of 44%, followed by Public Bodies with 34%, private sector 18% and state actors 8% and Intergovernmental organisation 3%

4. Conclusions

The Energy Facility is currently the most important funding mechanism of the European Union and the only one in the world aimed at energy access for the poor in rural and isolated areas. With a substantial amount of money 'in one pot', it has mobilised two calls for proposals totalling €440m up until 2010.

Given that the stated aim of the EUEI and EFs is primarily to increase energy access for the poor, the results of the first EF show that the EC had difficulties in meeting its stated priorities and principles - the amount of funding allocated to smaller scale projects has been much less than that allocated to the other priority areas.

The low level of investment from the private sector as co-founders on these projects reflect that the private sector is not yet confident to invest its own money in energy access for in poor countries. According to the EC information the private sector received €82m in grants (nearly twice the amount received by NGOs) yet only contributed €14.6m.

However, in the second call the focus of the EC has been much more consistent with its priorities and principles; much more money has been allocated to energy access in rural and peri-urban areas. It also shows that the EC has learned the lessons regarding its huge expectations regarding the contribution of the private sector.

Although the private sector participation is considered important to leverage extra funding sources for energy access, it is true that poor markets such as energy for rural and peri-urban households in developing countries is not attractive to the private sector, more work is needed on enabling the environment through better laws, regulations,

subsidies and good governance in order to attract private funds for poor groups of the population in Developing countries.

More effort is also needed to mobilise local funds, the lessons of the DEEP project show that there are opportunities to mobilise small amounts of local funds through the creation and enhancement of local enterprises.

5. Recommendations

The NGO sector (from both ACP and EU countries) has shown a strong commitment to energy access for the poor; therefore the EC should continue supporting and extending the participation of NGOs in future calls. This may require extra efforts in terms of capacity building, but may be worth the effort to maximise the reach of projects to the poor, and rural and isolated people.

The EC should foster a better engagement of the private sector in the in the delivery of small scale decentralised energy schemes and services, in order to leverage additional recourses

The EC should consider the allocation of funds to build local capacity to assess energy needs and resources, design and implement small scale energy systems locally in order to reduce costs of equipment and secure the supply of spare parts and local skills for operation and maintenance of the infrastructure installed, securing the future sustainability of the infrastructure installed. This requires efforts in terms of training and technology transfer

Considering the vitally important work done in many of the EF funded projects, the partners of this project strongly advocate for the continuation of the EF-Facility under the new structure of the EC, establishing a long term Energy Facility with annual calls to increase energy access for the poor.