Energy Access needs for the Poor: Feasible and attainable but....?

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Energy is central to all the Millennium Development Goals (MDGs)











MDG Africa Steering Group Scale

of finance and funding gaps

US\$ billion pa	Expenditure needs	Public expenditure	o/w external flows	Financing gap US\$ billion pa
Power sector	47.7	21.3	3.5	26.4
Off-grid	ICS, LPG			1.5
	Electricity, Motive Power			0.8

At the local level: Cost per beneficiary

<u>Region</u> (GEF Small <u>Grants</u> <u>Projects)</u>	<u>Number</u> <u>of</u> projects	Total Cost(ODA+Co-financing)(US\$million)	<u>Number of</u> <u>beneficiarie</u> <u>s</u> (million)	<u>Average</u> <u>Cost per</u> <u>beneficiary</u> (US\$)	Type of technolog y	Total Cost (ODA +co financing) US\$ millions	Number of beneficiar ies (million)	Average cost per person(U S\$)
Global	1163	72	2.6	28	Solar PV	8	0.05	114
<u>RBA</u>	276	16	<u>0.6</u>	<u>27</u>	Biofuels	1	0.02	50
DDAD	201	15	0.7	21	biogas	2	0.09	22
<u>KBAP</u>	291	15	<u>0.7</u>	21		2	0.40	
<u>RBEC</u>	181	16	<u>0.4</u>	<u>40</u>	Improved stoves	3	0.40	/
<u>RBAS</u>	189	10	<u>0.4</u>	<u>25</u>	Micro hydro	2	0.05	40
<u>RBLAC</u>	226	15	<u>0.5</u>	<u>30</u>	<u>Africa</u> total	16	0.61	27

To expand access to modern energy services, modern cooking fuels, electricity and mechanical power, an estimated US\$ 100 per person is need at the local level (**\$100 per beneficiary x 2 billion people = US\$ 200 billion**)

Is it too expensive to expand access to energy services to those not currently reached?

Estimates show that less than 1% of global electricity investment required by 2030 will be needed to provide modern energy services for the poor people who are not currently served.



Top ten 2005 African oil producers, and rough estimate of revenue per person per day

Country	2005 Broduction	Revenue at US\$ 110 per barrel (US\$	2005 Population	Revenue per person per dav
	Barrels per	–Million) **	million	(US\$)
	day			
Gabon	226,000	25	1.4	17.9
Congo Brazzaville	227,000		4	6.3
		25		
Chad	249,000	27	9.7	2.8
Equatorial Guinea	356,000		0.5	78.0
		39		
Sudan	363,000	40	40.2	1.0
Egypt	579,000	64	74	0.9
Angola	1,250,000	138	15.9	8.7
Libya	1,600,000	176	5.8	30.3
Algeria	2,080,000	229	32.8	7.0
Nigeria	2,600,000	286	132	2.2
Total	9,530,000	1048	316.3	3.3

**US\$110 not 2005 figures.

Source: statistics on oil from the 2005 US Energy Agency as at http://www.clickafrique.com/Magazine/ST014/CP0000002232.aspx

Is it financially feasible at the current level of revenue generation?





Total programmatic financing for 2 billion needed per person per year if accomplished by 2015 from 2008: approx. US\$ 14 per person per year

Expanded access toenergy services

What is needed.

Ensuring access to modern energy to meet basic development needs

- Modern fuels such as LPG and devices for domestic cooking and heating, this includes improved cookstoves with vented hoods plus sustainable biomass production systems
- Electricity at the local level for health clinics, schools, and public lighting systems/communications
- Mechanical power at the local level for basis agricultural food processing and water pumping

Key messages:

Scaling up energy services is feasible....

- 1. Replicable, proven decentralized models and lessons do exist
- 2. Prioritizing energy access for the poor in national development strategies
- 3. Investments in off-grid decentralized energy provide cost-effective access
- 4. Capacity development is fundamental to accelerate service delivery for the poor

Key points

- Access to modern energy services is fundamental to poverty reduction and growth.
- Achieving universal energy access is not at all costly on a macro term, and technological and institutional "know-how" already exist to make things happen.
- In theory, existing financial resources are more than sufficient to achieve this goal, particularly in resource-rich SSAs (e.g. the cost for energy access is tiny compared with oil revenues).

BUT, it's not happening...

- Why is it not happening?
- how can we make it happen?
- Do we have political commitment?
- Is it about strengthening the institutional capacity?
- reform the markets?
- is it a matter of capacity?

UNDP's Strategic Plan 2008 - 2011: Development priorities



Human Development

SP 2008-11: Environment & Sustainable Development



Human development

Thank you