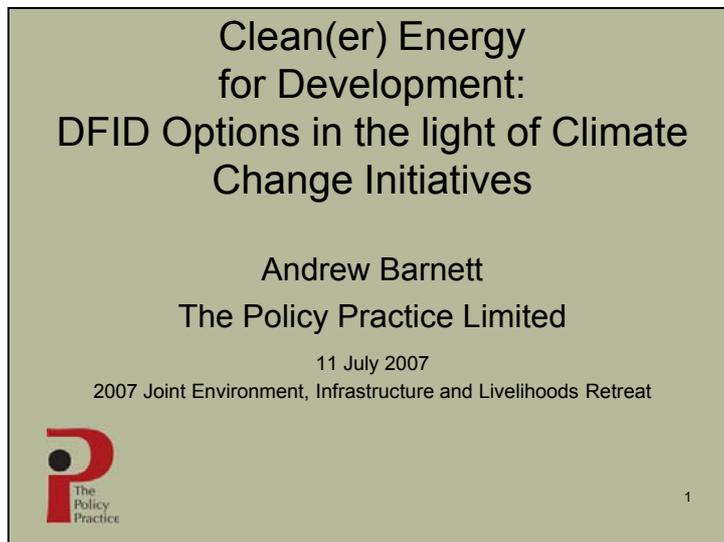


**Printout of Andrew Barnett's Presentation to the DFID Joint Environment,
Infrastructure and Livelihoods Retreat**

11 July 2007



Clean(er) Energy
for Development:
DFID Options in the light of Climate
Change Initiatives

Andrew Barnett
The Policy Practice Limited

11 July 2007
2007 Joint Environment, Infrastructure and Livelihoods Retreat



1

Purpose to reflect on what we know about energy and poverty and consider how this might relate to the “new agenda” facing DFID in the context of many new initiatives relating to climate change.



Where, Why and How?

The clean(er) energy landscape – all
you need to know in 15 minutes?

Some Key Issues

The trade-offs

Differing needs and effective
demand

The Policy Options

Some Illustrations



2

I assume institutional arrangements and change covered by Gerry Duffy in the next session.

Clean energy investment framework

Environment transformation Fund

four ministers attracted to “doing something” about climate change

Overview: just five slides – ending with some illustrations if time

Some Key Issues

Aid to energy largely abandoned?

Why: Ideology and MDG?

Energy now only through “environment”

No reduction in poverty without substantial increase in “MES”

Not Energy but Energy Services

Not by renewables alone

The “full menu” of options

Energy ≠ electricity



3

Retreat is about climate change but I want to focus on what we have learned about energy and poverty reduction.

20 years ago energy investment massive part of aid. No longer.

Why – wrongly assumed foreign private capital would meet the need, MDGs took a long time to see importance of infrastructure.

The big insight over the past 20 years is that success requires focussing on “energy services” not just supply.

- Energy services: energy supply plus end use technology.
- Not just energy supply and not just electricity (cf World Bank). Cooking the big need of poor people – liquid transport fuels neglected
- Efficiency of the conversion technology critical (woodstoves)
- “MES” – no country reduced poverty without massive increase in MES
- The energy carrier related to need (power, light, heat) cooking the big requirement of poor people
- Choice of conversion technology determines impact
Who chooses???
- Electric lighting highly desired – but motive power required for production, income, ability to pay, “virtuous and vicious circles”

Energy back on the aid agenda – but driven largely by climate change – rather than by poverty reduction - does this matter? Yes of course

- Renewables – role of hydro – irresponsible role of NGOs? Forum of energy ministers of Africa (FEMA) started in part to counter silly NGOs

The trade Offs

Global climate / energy security /
energy access

The “win-win” delusion

Market price cost / “environmental
cost” (local, global) / Social cost

The centrality of political economy
(aka “drivers of change”)

Whose problem?

Within and between countries

Distribution of benefits and burdens of
innovation and policy change



4

The political attraction of “doing something for the environment” argument, means that that energy funds often come from environment ministries and programmes – so trade offs denied, neglected or suppressed.

Clearly global environment is real and matters. Oil at \$70 does make a difference – hence energy security. Poverty reduction will not occur without massively increased energy use (MES). Petrol price includes large taxes

Trade off arises because;

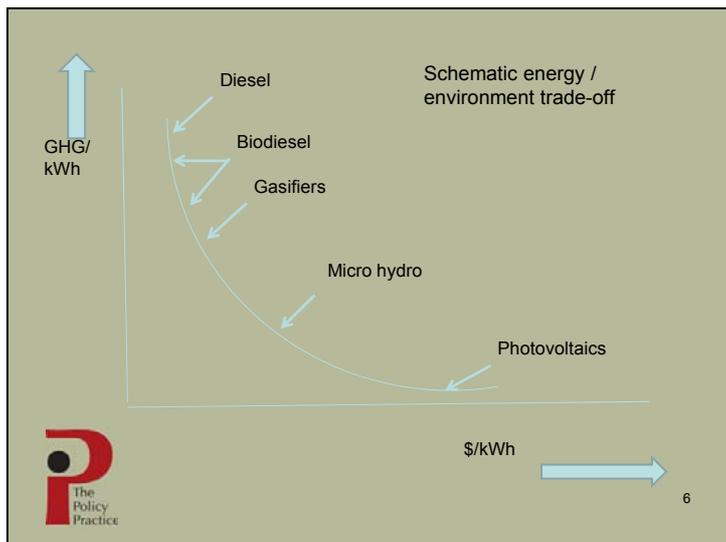
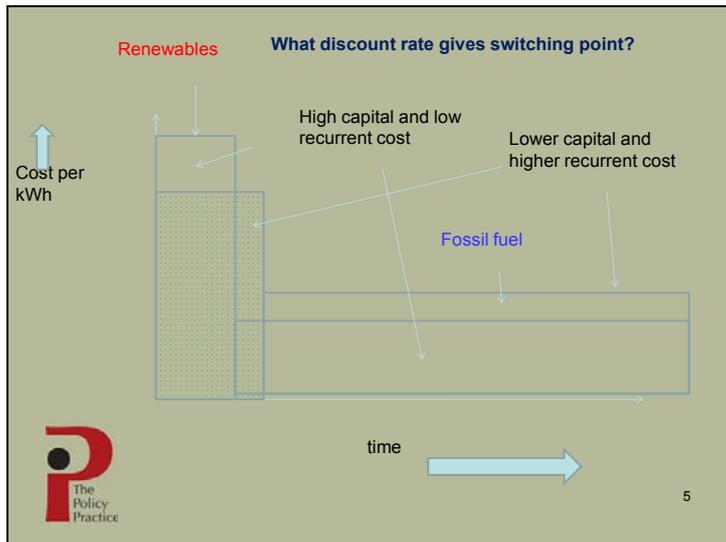
- Renewables have high capital cost and low recurrent cost
- Poverty means poor people are short of capital (not energy)
- Most energy related poverty reduction where energy cost is lowest (oil based and where dense populations)
- Renewables are least cost sometimes, but less so the higher the cost of capital. (stern report uses discount rate of 2-3% according to ft).
- Excitement of “portfolio approach” to energy security – Shimon Auerbach

Market prices do not reflect full cost – so limits to market driven approaches.
Environmental costs do not include distributional weights, so do not consider poverty reduction (access)

Carbon markets: yes, not working properly yet

Centrality of political economy: whose problem / whose ability to respond? Per capita carbon ton: **USA 19.8 ,UK 9.4, China 3.2, India 1.2.**

What of legacy carbon?



Differing Needs

MICs and LICs

If GHG is the concern go to big polluters -

Meeting basic energy needs of Africa will have no impact on global gases

Big emitters have poor people

The problem of pressing needs for energy with limited effective demand



vicious and virtuous circles

Link to productive end uses

7

Clearly major differences between middle and low income countries.

Madness of comparing country contribution without considering per capita contributions and legacy carbon.

Lots of other environmental concerns.

Policies and practices must disaggregate between and within countries. One size will not fit all.

The key message: don't saddle the poorest people with high capital cost options.

Crazy situation of massive amounts of money for often irrelevant renewables, but none for poverty reducing energy supplies and end use technology

Failing states and states in conflict need to get the lights on – very expensive emergency diesels probably justified

Some Policy Options

The role of donors:

Paris Declaration? Evidence based?

“comparative advantage”??

Who will take up the main energy challenge?

Importance of unfashionable energy investment

Technology:

move from research to innovation

Market barriers

Don't pollute the well

Taxes and subsidies – how to get smarter

The New Players:

China; Russia; “new” foundations



8

Need to give thought to how to translate new enthusiasm for climate change to poverty reducing energy development – this is DFID comparative advantage
Don't give it all the new money to the World Bank – need brains in house to drive process not just manage money

Danger of “clean energy” becoming the new religion –

Diversion, swamping, crowding out of ideas

Critical importance of evidence based approaches – counter slopping thinking

Fund people to establish what are the real costs

What is the real performance

Independent “validation of claims”

Counter simplistic models for policy and practice

Challenge the wilder claims of the NGO (“china's burning of coal is a crime against humanity”)

Don't forget what we have learned over past 30 years

- bridge from old language to new language is “efficiency”
- subsidies that make markets not destroy them
- incentivise the whole supply chain – from research to innovation
- small local capital likely to play major role
- importance of women
- massive limits to what governments and large private sector can do
- traditional energy activity will remain vital – big energy – power stations, refineries, distribution – the question what new ways can do old tasks better??

What determines DFID comparative advance

- Late starter? Don't know what others are doing?
- role for ESMAP? What of a European think tank?
- UK research (policy) and consulting experience (power sector)
- More dynamic vision of comparative advantage –you can build capacity to do anything – DFID comparative advantage is poverty reduction

\$70 dollar oil does open up opportunities for technical change.

Sceptical about biofuels (compare exports with own use)
Carbon capture – a long way off and very expensive
New players and old enemies
China, Russia, new foundations, single issue lobby groups (sugar growers and biofuels, irresponsible NGOs)

Illustration of new models

The “S³IDF” model

Winner of the 2007 World Clean Energy Awards for its “social merchant bank” model in India

Global Village Energy Partnership (GVEP)

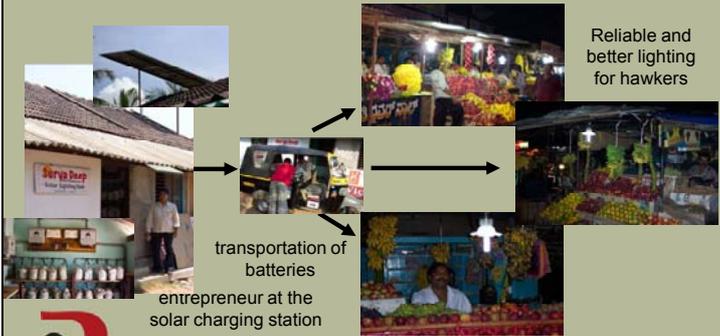
Business-like approach to the supply of modern energy services through small enterprises.



9

MORE SLIDES IF TIME AND INTEREST

S³IDF Project Example: Safe, Improved Lighting services to Hawkers



entrepreneur at the solar charging station

transportation of batteries

Reliable and better lighting for hawkers



10

For the light point projects, S³IDF arranged the business development, technology and financial assistance to help the entrepreneurs increase their income, generate employment and provide cost savings and improved lighting for working class hawkers.

GVEP/I: Current & Future Funding

GVEP/I, UK charity receiving donor support from:

- USAID (\$400,000) for regional activities
- DFID (\$8M) for core funding
- Dutch (\$5M) for regional activities
- Private sector (Shell, BP...EDF Energy, Areva)

Russian Funds for (\$ millions) for African Fund Initiative through WB Trust Fund

Selected under EU Energy Facility Competition (€ 2 billion) will support East African Fund Development/ Implementation

