

Date 13-10-11



Parliamentary Briefing

**Friends of
the Earth**

Tackling climate change and energy access: A transformative solution

The way we produce energy is not working for people or the planet and needs to change:

- Dependence on fossil fuels is driving dangerous climate change.
- 40 per cent of the world's population still uses traditional biomass.
- The World Bank is pushing a highly centralised, fossil fuel-based energy model.
- We need a low-carbon, decentralised model of energy generation.
- The UK can champion the shift away from fossil fuels to a renewable future.

In this document Friends of the Earth proposes a global policy that:

- Addresses poverty through low-carbon, people-centred energy access.
- Transforms the role of renewables in the energy mix so the UK and other industrialised countries can make a far cheaper and easier transition to being low carbon.

Friends of the Earth calls on the UK to demonstrate best practice through establishing a pilot.

Friends of the Earth makes life better for people by inspiring solutions to environmental problems.

We are:

- the UK's most influential national environmental campaigning organisation
- the world's most extensive environmental network, with around 2 million supporters across five continents and more than 76 national organisations worldwide
- a unique network of campaigning local groups, working in more than 220 communities throughout England, Wales and Northern Ireland
- dependent on individuals for over 90 per cent of our income

To join or make a donation call us on 0800 581 051

Friends of the Earth, 26-28 Underwood Street. London N1 7JQ
Tel: 020 7490 1555 Fax: 020 7490 0881 Web: www.foe.co.uk

Friends of the Earth Limited company number 1012357, Trust company number 1533942, registered charity number 281681

Problems with the current system

Climate change: Research by the United Nations Environment Programme (UNEP) shows current plans to reduce greenhouse gas emissions are putting the world on course for 5 degrees of global warming. We need to dramatically reduce the amount of carbon dioxide (CO₂) we are putting into the atmosphere, 60 per cent of which is through energy generation from fossil fuels.ⁱ Their use would need to drop by at least 80 per cent by mid-century to keep global temperature rise to 2 degreesⁱⁱ; more to avoid breaching the critical threshold of 1.5 degrees and the devastating impact that would trigger for Africa, small island developing states and vulnerable countries like Bangladesh. With demand for energy set to keep growing – particularly in Asia and Africa – the failure to shift away from fossil fuels could have catastrophic implications for the UK and the rest of the world.

Energy Access: The International Energy Agency (IEA) reports 1.3 billion people worldwide are without access to electricity, while 2.7 billion still rely on traditional biomass like firewood, dung or coal for cooking, heating and other needsⁱⁱⁱ. In Ethiopia, 93 per cent of the population rely on traditional biomass for cooking. The health impact from smoke inhalation, particularly among women and children, causes more deaths than malaria, tuberculosis or HIV/AIDS^{iv}. UNEP also sees the burning of traditional fuel as a source of black carbon (soot) and tropospheric ozone, which both accelerate climate change. Tackling them could prevent temperature rises by up to 0.5 degrees^v.

Box 1: Energy access in South Africa

Affordability is the biggest barrier to energy access in South Africa. People are taking to the streets in protest at cheap energy for industry versus high and rising prices for the poor.

- | | |
|--|---|
| <ul style="list-style-type: none"> • BHP Biliton received public energy subsidies worth more than US\$1 billion 2009-2010 | <ul style="list-style-type: none"> • 20 per cent of the population experienced periods of disconnection between 1994-2002. |
| <ul style="list-style-type: none"> • 40 per cent of households still rely on traditional fuels, causing 400,000 fires/year. | <ul style="list-style-type: none"> • The WHO estimates 1,000 deaths/year from indoor air pollution. |

Source: Earthlife Africa Jhb; groundWork (Friends of the Earth South Africa)

Energy and poverty: The cost of energy is also pivotal to access. In South Africa public subsidies mean export-oriented extractive industries enjoy the world’s cheapest coal-fuelled electricity while the country’s poor are disconnected because they cannot keep up with price hikes (**see box 1**). The poorest resort to using coal in their homes. The direct environmental impact of World Bank-supported energy projects falls disproportionately on the poor. The north east of India has the country’s highest concentration of coal-fired power plants yet also the lowest rate of village electrification, with power lines running through villages that have no electricity^{vi}. Communities near fossil fuel extraction sites, like oil wells in the Niger Delta, see their local environments destroyed and livelihoods ruined, often without compensation (**see box 2**). Dirty power plants wreak similar havoc, polluting local water, air and soils.

Box 2: Big Oil in the Niger Delta

Big Oil is destroying the rich ecosystems of the Niger Delta, including the communities that are part of them.

“Fishing, farming and weaving, which used to be our people’s main stay are no longer profitable because of oil pollution. Before oil exploration there was fish everywhere. Rushes, cotton, raffia, plantain trees and mangrove trees were in abundance and boosted the economy of our people.”

“The stream, our only source of drinking water, has been polluted by the oil companies. Our people are dying of strange sicknesses as a result of gas flaring. The government and oil companies are aware of this but have chosen to respond to our plight by killing, molesting and detaining us for speaking out.”

Larry Bowoto, of the Ilaje Yoruba people in Ondo State, Nigeria

Source: Environmental Rights Action (Friends of the Earth Nigeria)

The UK taxpayer indirectly supports these environmentally and socially destructive models: money given to the World Bank in the name of poverty alleviation is being spent on dirty energy projects in developing countries, like the Medupi coal-fired power station in South Africa, being built thanks to a US\$3.75 billion loan to be paid back through residential electricity bills. Large, centralised, fossil fuel-driven energy models do not serve the poor, and without a dramatic shift the IEA predicts that the same number of people will rely on traditional biomass in 2030 as today^{vii}.

Box 3: Community solar in Uttar Pradesh, India

Until 2009, drought-prone Rampura was within the 45 per cent of India without electricity. The village is now one of India’s first community-managed solar power plants, with 60 panels and 24 batteries.

“Solar power is a blessing as we can now also study at night time.”

Shanno, Class 4 student at the village’s primary school

With the success of the solar power plant, the village committee are now setting up a biogas project

“A biomass gasifier project [is needed by the village] to meet its energy needs for irrigation purposes in times to come, the fuel for which will come from the large cattle population being reared by the villagers.” **Thakur Das Yadav, head of the Village Development Committee.**

Source: Vasudha Foundation, India

Creating a new system

Clean energy access: Access to clean energy is considered the key to tackling poverty and climate change, the missing Millennium Development Goal: UN Secretary General Ban Ki-moon has called for a “clean energy revolution” ahead of Rio+20 in 2012, the Year of Sustainable Energy for All. Successful small-scale examples demonstrate the potential (**see box 3**), but IPCC research shows renewables can be deployed at scale, deliver 80 per cent of our global energy needs by 2050^{viii}; Ecofys put the figure at 95 per cent^{ix}. What is needed is the right policy framework and finance.

Transformative solution: National-level feed-in tariffs (FiTs) have delivered dramatic increases in renewable energy capacity across the world, and are seen by the IPCC as a key enabling policy^x. In a developing country context, the biggest barrier has been financing it: therefore a global feed-in fund

could pay the guaranteed energy generation price set at the national level, as well as provide upfront capital to invest in the most socially and environmentally appropriate technology. Increased involvement of local communities, through capacity building initiatives at local, national and international level, will ensure that the rights of communities and the environment are central to energy policy. Necessary institutional and legislative changes will also ensure these safeguards, while encouraging cooperative models of energy governance.

Upfront public investment: The markets have not and will not deliver the scale of renewables deployment at the speed necessary to tackle poverty and climate change. Therefore upfront public finance is needed, coming from industrialised countries in line with their legal and moral obligations enshrined in the UN Convention on Climate Change. This would benefit developing countries while dramatically lowering the cost of renewables globally, making the low-carbon transition for industrialised countries cheaper. According to UN-DESA, investing US\$100 billion a year for 10-15 years could make renewables cheaper than fossil fuels, meaning renewables would become the default choice for energy generation everywhere^{xi}.

Benefits to developing countries	Benefits to the UK
<ul style="list-style-type: none"> • Tackling poverty through access to energy • 2 million avoided deaths from indoor air pollution • Mitigate climate change • Greater resilience to climate change • Job creation in growing renewable sectors • Break the power of fossil fuel-intensive centralised energy providers and democratise energy 	<ul style="list-style-type: none"> • Global mitigation of climate change • Lowered cost of own transition • Lower adaptation costs • Green jobs and industry • Climate finance becomes an investment • Established as international leader on climate change and poverty alleviation

Securing finance: Studies put the cost of bringing down renewables at US\$100 billion/year, with at least that again to deliver the necessary enabling policies. However, revenue from ‘innovative sources’ could far surpass that, with conservative estimates seeing potential revenue of at least US\$400-US\$600 billion^{xii} (see box 4). This would ensure all finance is new and additional without turning to unreliable and unproven sources of finance like carbon markets^{xiii}.

Box 4: Innovative sources of finance

The limited sources already identified highlight at least US\$400-US\$600 billion of potential climate finance. The main barriers to collecting the extra revenue are political, not technical.

Global Financial Transaction Tax	US\$100bn	A recent report by the International Energy Agency (IEA) and the Organisation for Economic Co-operation and Development (OECD) estimated that OECD countries paid out US\$500 billion in 2010 for fossil fuel subsidies.
Carbon and energy taxation	US\$24bn	
IMF Special Drawing Rights	US\$100bn	

Friends of the Earth (2010) *Clearing the Air*

Source: OECD/IEA (2011)^{xiv}

Role of the UK

Redirect World Bank donations: The UK gives more than £2 billion of taxpayers' money to the World Bank every year, which the Environmental Audit Committee showed going towards fossil fuels not poverty alleviation.^{xv} Friends of the Earth urges the UK to reconsider how this money is spent. Rather than spending on socially, environmentally, and economically damaging practices (see box 5), redirecting it towards a pilot-scheme with a handful of carefully selected recipient countries could demonstrate how much could be achieved with international support for nationally-appropriate FiTs and the accompanying policies.

UK as champion: According to the IEA, the "future of renewables hinges critically on strong government support"^{xvi}. With the right principles and commitment the UK government could become the champion of a truly global solution, establishing a global fund for clean, affordable energy access and leading the transformational fight against climate change and global poverty.

Box 5: World Bank projects failing poor in Uganda

Only 1 per cent of Ugandans have access to electricity and despite rich renewable energy resources the World Bank, African Development Bank and Ugandan government continue to push large hydroelectric projects.

"The more the World Bank... and the Uganda Government have worked in partnership, to enhance efficiency and expand electricity supply to spur sustainable development and reduce poverty, the more chronic power shortages, load-shedding, debt burden and absolute poverty the country is experiencing."

"There is need to rethink Uganda's energy sector with a view to taking alternative energy sources more seriously as the collective means that will collectively and significantly deliver cheap, sustainable and abundant electricity for rural transformation and poverty reduction."

NAPE/Friends of the Earth Uganda (2009) *A Spot Check on Compliance and Performance of World Bank and African Development Bank in Uganda's Energy Sector*

Notes

ⁱ UN-DESA (2011) *World Economic and Social Survey 2011*

ⁱⁱ IPCC (2007) *Fourth Annual Report*

ⁱⁱⁱ IEA (2011) *World Energy Outlook 2011*

^{iv} World Health Organisation (2011) *Health in the Green Economy*

^v UNEP (2011) *Integrated Assessment of Black Carbon and Tropospheric Ozone: Summary for decision makers*

^{vi} ActionAid!USA (2011) *Access to Energy for the Poor: The Clean Energy Option*

^{vii} IEA (2011) *World Energy Outlook 2011*

^{viii} IPCC (2011) *Special Report on Renewable Energy Sources and Climate Change*

^{ix} WWF (2011) *The Energy Report - 100% Renewable Energy by 2050*

^x IPCC (2011) *Special Report on Renewable Energy Sources and Climate Change*

^{xi} Alan AtKisson (2009) *The Global Green New Deal For Climate Energy and Development*

^{xii} For all references and a breakdown of the sums, see our 2010 report, *Clearing the Air*

^{xiii} Friends of the Earth (2009) *A Dangerous Distraction*

^{xiv} IEA/OECD (2011) *Inventory of estimated budgetary support and tax expenditures for fossil fuels*

^{xv} EAC (2011) *The impact of UK overseas aid on environmental protection and climate change adaptation and mitigation*

^{xvi} IEA (2010) *WEO2010*, executive summary p.11