

Towards a just energy system

The struggle to end energy injustice

October 2014



We live in a world of energy injustice. While multinational corporations drive the world towards dangerous climate change, consuming more energy than entire nations, one in five people globally live without electricity because they are unable to access it, and millions more go without because they cannot afford to pay for it. In Africa, only 10 per cent of those living in rural areas have access to electricity.

Meanwhile, governments and institutions like the World Bank continue to impose a model of development on impoverished countries that force them to hand control of their energy systems over to multinational companies that prioritise their profits over the needs of people. The result is usually a failure to improve energy access, and continued

dependence on dirty fossil fuels that cause displacement, health problems and pollute people's environment.

But it is possible for everyone to access the energy we need while tackling climate change if we have a system where energy is fairly distributed, democratically controlled and managed, recognising environmental limits.

There's no one-size-fits-all solution, but around the world people are using systems which give them control over energy. Examples include small-scale hydro-electricity cooperatives in Indonesia, Bolivia's rural electricity cooperative which supplies over 300,000 households, and decisions to bring the electricity supply back into public hands in Hamburg and other German cities.



Photo: Greenpeace

Duvha coal power station, just outside eMalahleni, South Africa. 44% of South Africa's electricity is used by just 36 companies.

A world of energy injustice

One in five people globally lack access to electricity, making it extremely difficult to stay healthy or obtain a good education. Lack of energy access often disproportionately affects women and girls because they tend to be responsible for time-consuming fuel collection and cooking where they are exposed to indoor air pollution.

Energy access is political. Like with food, much of the mainstream discourse on energy starts from the assumption that there is 'not enough' of it. This is a fallacy. Energy injustice has many causes but a lack of energy resources is not one of them. Indeed, some of the countries with the lowest energy access rates are the ones most endowed with energy resources.

For example, more than half of people (and 90 per cent of the rural population) of oil-rich Nigeria lack basic access to electricity. Over a quarter of people in Indonesia, the world's biggest exporter of coal, go without electricity, with access rates even lower on the two islands of Kalimantan and Sumatra where most of the coal is mined.

The reality is that there are important structural reasons for why so many people go without basic access to electricity in the 21st century. Lack of infrastructure means that for many people, the means to access electricity does not exist. Many more have connections but are unable to afford the energy they need, as private companies hike energy prices to unaffordable levels.

Privatisation

Around the world, the provision of people's essential energy needs has increasingly become the sphere of profiteering companies. Back in the 1970s, electricity privatisation was almost unheard of, but by 2000, on the back of policies promoted through the World Bank, dozens of countries had privatised their energy sectors. This has put the control of energy in the hands of unaccountable corporations that prioritise their profits over our needs.

Far from introducing greater efficiency, almost everywhere privatisation has taken place has seen energy prices soar to the detriment of the poor who struggle to afford the bills. For example, research has found that privatisation in Nicaragua led to huge price hikes of over 50 per cent despite very little new investment. In the UK, electricity prices have risen eight times faster than earnings in the last three years with the result that increasing numbers of people cannot afford the energy they need.

Rising bills are not the only reason privatisation is a threat. In countries with low connection rates, private companies are less likely to invest in the infrastructure necessary to get energy to impoverished rural communities. This is because privatised energy companies will always prioritise what is profitable at the expense of what is socially necessary. So instead of spending money on infrastructure to reach rural communities that will not consume large quantities of energy, resources tend to be diverted to meet the needs of large energy users who do: big business and heavy industry.

The reason many countries have been privatising their energy sectors partly lies with the 'development' agenda pursued by government aid agencies and development finance institutions. The UK's Department for International Development (DfID) openly states that it seeks to "lobby partners on trade liberalisation [and] deregulation". Sometimes this support for market solutions has extended to direct support for privatisation programmes. For example, in Nigeria, DfID has put £100 million into helping Nigeria sell its electricity system to the highest bidder through the Nigerian Infrastructure Advisory Facility.

Where governments recognise that privatised energy companies have failed to invest in infrastructure and pushed up prices, there is often little they can do to reverse the damage. International trade and investment agreements protect the interests of foreign investors if a country decides to take back control, or even limit price hikes. Argentina was forced to pay huge compensation

Energy injustice in figures

1,300,000,000

The number of people globally living without electricity

99%

The proportion of rural Malawians who don't have electricity

68%

The proportion of people in sub-Saharan Africa without electricity

5 days

How long it takes the average UK resident to emit as much carbon as the average person from Madagascar does in a year

44%

The proportion of South Africa's electricity used by just 36 companies

16%

The proportion of South Africa's electricity used by all of its 53 million people

2,300,000

The number of households in England which live in fuel poverty



Members of the community inspect a hydro-electric turbine in Palanggaran, Indonesia

packages to foreign energy companies by an international tribunal when it froze energy prices, a move that was deemed to have harmed the profits of the company.

Energy for big business not people

Another problem is that in many countries of the global south much of the energy that is generated goes to big companies producing products for export. In most cases, this does little or nothing to reduce poverty or enable the majority of the population to meet their energy needs.

Industrial activities such as mining and aluminium production can be very energy intensive. For example, in Mozambique, the Mozal aluminium smelter uses 45 per cent of the country's electricity while 80 per cent of the population has no access. The aluminium is mostly exported, with 13.5 per cent of it coming to the UK.

In South Africa, 15 per cent of the population has no access to electricity and many more cannot afford to pay the bills. Yet just one company, BHP Billiton, uses up as much electricity as two thirds of the population while paying a tariff so low that the South African energy company Eskom makes a 50 per cent loss on power provided to the company.

In Mexico, multinational corporations have been building large wind farms on land belonging to indigenous people without their permission. One of them, the La Mata and La Ventosa wind park, which is partly financed by UK aid money, produces enough electricity to power 160,000 homes. But rather than meeting the energy needs of local people (7 per cent of who do not have any access to electricity), the power

produced is being sold at a discounted rate to Walmart.

Across the world, a network of huge ports, railways, oil and gas pipelines pump fossil fuels out of impoverished countries to the global north. Every year in Nigeria, where most people don't have electricity, multinational companies like Shell and Exxon-Mobil pump out enough oil to power the country many times over. Now a proposal for the Trans-Saharan Gas Pipeline is being put forward which would stretch 4,128 km through Nigeria, Niger and Algeria to facilitate more energy exports. Major corporations including Shell and Total are vying for a slice of the profits that they can make from supplying European markets through this project.

Impacts of corporate-controlled energy systems

Despite making vast profits from our energy systems, the companies involved are keeping us locked into ways of producing energy that have devastating impacts on our communities and those elsewhere.

Fossil fuel projects in the global south are often resisted because local people have to deal with problems like pollution and the loss of land or livelihoods without gaining access to the energy produced. For example, three huge coal power stations are being built in Mundra, in the Indian state of Gujarat which will cost local fishermen their livelihoods. Much of the energy produced, however, will be going to power a 'special economic zone' for export industries. In Bangladesh, the Phulbari coal mine is being fiercely resisted as it could displace up to 220,000 people, depriving them of



Photo: Earthlife Africa/Johannesburg

Lack of finance

Providing electricity to a population, especially if it is predominantly rural, is not cheap and some countries simply do not have the resources to do this. This can be compounded in cases where aid money comes with conditions attached that precludes large scale state investment in publically-owned energy infrastructure, instead favouring economic liberalisation and privatisation.

Examples from around the world show that the private sector fails to invest in infrastructure to enable energy access for all. But where it doesn't already exist, such infrastructure could be provided through public investment from progressive taxation (which could include a global tax on aviation and shipping) or climate finance from rich countries.

Industrialised countries like the UK got rich by burning cheap fossil fuels and causing climate change. Impoverished countries bear none of this responsibility but are feeling the effects of the changing climate most acutely. As a result, global justice campaigners demand that rich countries compensate them for the damage they've caused by providing enough climate finance to secure clean energy access for all.

The UK pays lip service to the need to provide climate finance and the principle of 'common but differentiated responsibility' for climate change. However, much of this money has been siphoned off to the private sector through schemes such as the £130 million 'Climate Public Private Partnership' (CP3) fund or put through the World Bank as loans, further increasing the debt burden on southern countries.

Alternatives to corporate energy

The question of what a just and sustainable energy system would look like is complex. There are no easy answers or one-size-fits-all solutions. A range of approaches will be needed depending on the local context and specific needs of different communities.

But social movements and campaigners across the world agree that everyone should be able to enjoy their right to enough energy to meet their essential needs, and that we need to find ways of ensuring this without destroying the planet. There is also broad agreement that the corporate control of energy is usually a bad thing.

Off-grid cooperatives

Small-scale, off-grid, renewable energy cooperatives involve a community owning and maintaining solar panels, wind turbines or other technology to provide energy access for themselves.

They are relatively easy to set up if funding is available and provide true community control over energy. These sorts of projects have an important role to play in bringing electricity to remote areas and small communities.

Earthlife South Africa members picket outside Anglo American headquarters in Johannesburg

their land in an area where 80 per cent of local people have land-based livelihoods.

Closer to home, communities across the UK have united to resist plans to develop fracking in their local area. They are contesting local air and water pollution, disruption from the large tankers that service the sites and the contribution to climate change that fracking will cause. And challenging the idea that fracking will provide more equitable energy. The only beneficiaries look set to be landowners and the fracking companies themselves.

Climate change hits the poorest hardest. Around the world, millions are already seeing falling crop yields, increased drought and flooding. These are problems that are only going to get worse.

But it is a problem that the people suffering the effects in the global south have had almost no part in creating. The vast majority of fossil fuels are burned by rich countries like the UK. Germany (population: 81 million) emits more carbon than the whole of sub-Saharan Africa (population: 937 million). What carbon is emitted in the global south is mostly for the benefit of elites there or abroad.

For example, in Indonesia, villages in the Mount Halimun region of west Java are equipped with micro-hydro turbines that were set up by Indonesian organisation Ibeka and are run and maintained by the community through a cooperative. The energy generated is cheaper than that bought through the national grid and the cooperative is able to be flexible about payment dates if a household doesn't have enough money one month. The electricity provided helps to meet basic needs, like enabling local children to study in the evenings using electric lights.

However, it is far from clear that these sorts of small-scale projects are sufficient to achieve universal energy access. Small-scale solar generation is becoming more cost effective every year, but it remains more expensive than larger scale renewable energy. Off-grid electricity can also be lower quality than grid electricity. The capacity for energy storage is lower and in the more rudimentary projects, relies on individual households charging batteries which they then have to take home. This may be an improvement over having no electricity at all, but it is not enough to fulfil people's right to access enough energy to meet their needs.

Large-scale cooperatives

Energy cooperatives come in many different forms and can be larger urban enterprises connected to the electricity grid. One of the largest energy cooperatives in the world is the Cooperativa Rural de Electrificación (CRE) in Bolivia, which supplies electricity to over 300,000 households.

Costa Rica has achieved 98 per cent energy access through an energy system mostly based on large scale cooperatives.

These cooperatives may produce electricity themselves or purchase it from a state-owned or private sector supplier. The extent to which members have a say in the running of the cooperative depends on what kind of cooperative it is, and the size of the project. Although some of these older examples like CRE use conventional energy, new cooperatives of this type are overwhelmingly based on renewables.

Being connected to the grid often means lower prices and higher quality and reliability of the electricity supply. In most cases the more democratic structure of cooperatives means that they are much better at representing the needs of local people than large-scale institutions.

However, where infrastructure to generate and distribute electricity to all does not already exist, co-operatives like this are not always able to provide it. But in some cases, such cooperatives may form a basis on which access can be scaled-up through public investment.

Nationalisation and large-scale energy infrastructure investment

In most cases, universal energy access has been achieved through public investment in large-scale energy infrastructure. Indeed, that is what happened in most developed countries. There are many who argue that only the state has the capacity and willingness to invest in



Photo: Flickr/110 in Asia and Pacific/Alan Dow/BME/Creative Commons

A solar panel is put in place on a roof top in Bangladesh



Campaigners in Germany supporting the Energiewende or Energy Transition

enough large scale renewable energy infrastructure to secure universal access.

Some countries such as Venezuela and Bolivia have indeed renationalised much of their energy infrastructure and distribution systems. Others, like Belarus, never privatised energy generation or distribution. Others still, like India, have retained a state-led system alongside limited (but nevertheless damaging) liberalisation allowing private companies to build power infrastructure.

State-led investment programmes, if run well and in the public interest, can certainly work to increase access to clean energy in the global south. One example is Uruguay, which has an ambitious plan to shift away from using fossil fuels while achieving universal energy access.

The risk with the centralised, big-state model of nationalised energy is that it can be distant from and unaccountable to energy users, and in some cases captured by private interests. For example, in South Africa the state company Eskom has built huge coal power stations that provide cheap energy to multinationals while charging high prices to poor consumers. This is an example of a state adopting market principles when running public services. Many argue for democratic principles to replace this marketisation of energy provision.

Municipalisation

Increasingly, giving local government a key role is seen as being a positive alternative to both centralised state systems and smaller-scale community-level projects. Remunicipalisation is about local governments taking back control of key services from the private sector thereby increasing democratic control and often improving services.

Remunicipalisation has allowed local governments to take control of services and utilities such as power and water from the private sector. Around the world, cities including Dar es Salaam, Buenos Aires and Paris have reversed water privatisation.

In the UK, the reversal of the part-privatisation of the London Underground is perhaps the most prominent example of remunicipalisation. The continuing (and highly successful) public ownership of Scottish Water could be seen as another example of a municipalised service happening at regional rather than local level.

In Germany, several cities, most notably Hamburg, have taken back control over their electricity supply and others, including Berlin, have held referendums in which a majority of voters have backed remunicipalisation.

There is a risk that local government-controlled utilities that try to emulate the private sector can fall into many of the same traps as large energy corporations – a criticism of the scheme in Berlin. This shows how important the struggle for democratic control is to fair energy provision.

UK banks and coal

The UK financial sector bears a great deal of responsibility for energy injustice around the world. Banks pour billions of pounds into coal, oil and gas companies every year in the form of loans and the provision of investment banking services, while pension funds (with the help of asset managers like Legal & General or Blackrock) invest in the shares of fossil fuel companies listed on the London Stock Exchange.

WDM has been calling for banks to pull out of coal, which devastates communities where it is mined and causes local and global pollution when it is burned. All the major UK high street banks are invested in the coal industry. The Royal Bank of Scotland and Barclays are the world's third and fourth largest supporters of coal respectively. But the banks with smaller investments are also major players considering their comparatively small size.

Subsidies

Government subsidies can also have a role to play in encouraging universal access to clean energy. For example, thousands of people across the UK benefit from feed-in tariffs for small-scale solar and wind generation, reducing their bills and helping to increase renewable energy production. While better-off households who own their own home have been best placed to benefit from feed-in tariffs, there have been schemes to enable social housing tenants to benefit too.

Germany has seen a huge increase in renewable generation since 2000 when the Renewable Energy Act was passed. Renewables now account for 23.9 per cent of the German energy mix, an almost fourfold increase from the 2000 figure of 6.6 per cent. Most of this capacity is small-scale and not owned by corporations although households pay for the scheme through their bills rather than through taxation, which would be more progressive since it would allow those with lower incomes to pay less.

A number of developing countries, including Indonesia, Thailand and Uganda have introduced forms of national feed-in tariffs but global justice campaigners have been calling for 'global feed-in tariffs'. These tariffs would use climate finance from rich countries with historically high carbon footprints to subsidise communities in developing countries to produce their own renewable energy.

Unfortunately, far from using climate finance to help communities in this way, rich countries continue to promote the corporate interests that undermine energy justice. For example, the availability of cheap Indian solar panels has enabled communities in some places to take matters into their own hands and create their own electricity supply. In Bangladesh, microfinance available through a local non-profit organisation has allowed local people to purchase their own cheap Indian solar panels. But in response the US has taken India to World Trade Organisation arbitration for subsidising its solar industry.

Energy justice in the UK

The fight against energy injustice is global with thriving campaigns here in the UK.

The fight against the big six

The privatisation of the UK's energy system has been a disaster. Those worst affected are the increasing numbers of people who struggle to pay their bills – which rose by 140 per cent between 2004 and 2012. In the UK, over five million households live in fuel poverty, meaning that they have to spend more than 10 per cent of their income on energy to keep warm. This is the highest level of fuel poverty in Western Europe.

Privatisation has also been bad news for the planet, as 64 per cent of our energy is still derived from fossil fuels and a further 20 per cent comes from nuclear sources, which receives large subsidies while producing harmful waste.

Campaigning groups such as Fuel Poverty Action are fighting for an end to the power of the big six energy firms (British Gas, EDF, E.On, Npower, SSE and Scottish Power) and demanding a transition to affordable, green energy. Activists have protested at company AGMs, lobbied the government and fought against misleading corporate propaganda suggesting that green energy is more expensive than fossil fuels. The reality is that wind energy installed now will be cheaper in the long run than coal. But ultimately the issue must go beyond the type of energy to who controls it. Renewables protect our climate but if controlled by big business they can be still be inequitable.

Green energy cooperatives in the UK

Across the UK, people are leading by example in the fight for clean, affordable, community-controlled energy. In London, Brixton Energy has sourced funding from local people to install solar panels on housing estates, generating renewable energy for the community and funding energy efficiency projects. On a larger scale, Westmill Solar Co-op on the Oxfordshire-Wiltshire border produces electricity equivalent to the needs of 1,400 households.

The government should support these kinds of initiatives instead of promoting big corporate-led schemes which perpetuate dependence on imported fossil fuels that cause destruction where they are extracted and burned.

What can we do?

Here in the UK there are many things we can do as part of the struggle for a more just energy system:

Support struggles in the south. People around the world are fighting against privatised energy and huge fossil fuel companies. We can continue to support communities fighting dirty energy extraction in places like Indonesia, Colombia and Bangladesh.

Use our influence to change the behaviour of UK companies and our government, including:

- **Demand our government supports energy justice not corporate control.** The Department for International Development has supported privatisation of Nigeria's energy system and the Climate Public Private Partnership (CP3) scheme which has been criticised for prioritising profitability for private investors over effectiveness.
- **Get the big banks out of dirty energy.** The UK financial sector is one of the major driving forces behind energy injustice globally. Getting the big banks to stop funding coal would be a major first step towards changing this – as our Carbon Capital campaign has been pushing for.

- **Require tougher regulation on London listed extractives firms.** The London Stock Exchange is full of companies that trade on exploitation of other countries' energy resources. WDM and other members of the London Mining Network have been arguing for social and environmental criteria to be introduced to stop coal mining companies that abuse human rights gaining a London listing.
- **Call for compensation for countries through more and better climate finance.** Rich countries have brought the world to the brink of climate catastrophe. We need to get our governments to realise that they need to provide enough money (over and above the aid budget) to compensate poor countries for this and to help them build renewable energy.

Fight the big six energy firms. The UK's energy system is broken. Our consumption of fossil fuels remains high while poor people freeze due to high bills. We are joining up with organisations like Fuel Poverty Action to fight for a more democratic and equitable energy system in the UK.



Photo: Leeds Fuel Poverty Action

Fuel poverty campaigners in the UK take to the streets

Take action

To find out how you can campaign on energy and climate issues, and challenge corporate power visit www.wdm.org.uk/carbon-capital or call 020 7820 4900



The World Development Movement campaigns against the root causes of poverty. Working in solidarity with activists around the world, we oppose injustice and challenge the policies and institutions which keep people poor.

World Development Movement, 66 Offley Road, London SW9 0LS
t: 020 7820 4900 e: wdm@wdm.org.uk w: www.wdm.org.uk