

Blair's Legacy: 10 years of hot air

*"Global warming is the greatest long-term threat to our planet's environment...We need therefore the most radical overhaul of energy policy since the War"*¹

*"We are heading towards catastrophic tipping points in our climate unless we act."*²
Tony Blair, October 2006

With the scientific warnings more shocking than ever, impacts on human lives and ecosystems already being experienced across the globe, and new research suggesting that unchecked climate change will have disastrous economic impacts, it's never been more urgent to act. Yet despite fine words about the problem, Tony Blair has done almost nothing to implement the solutions needed on the scale required during his decade in power. UK CO2 emissions have risen, and are still rising. Coal burn is going up. Government and power companies blame this on high gas prices, but Greenpeace have identified no less than six different government policies that make it financially advantageous to burn coal rather than use gas or renewables. In other words, a change in government policies could make it cheaper to use the cleanest fuels in energy generation, and to use these fuels far more efficiently. Our current centralised power stations waste two thirds of the energy they generate but Blair has ignored the solution to this scandalous waste: decentralised energy³. Instead of urgent action to tackle climate change, all Blair has delivered is hot air.

UK TRENDS – heading for climate disaster

COAL BURN

- Coal, the dirtiest (most carbon intensive) of all the fossil fuels, is responsible for around 22% of overall UK CO2 emissions⁴. Burning a tonne of coal emits around twice as much CO2 as burning a tonne of gas, yet coal burn in the UK is rising. Since Labour came to power in 1997, the use of coal for electricity generation has gone up from 47.3 million tonnes a year to 52.5 million tonnes a year⁵.
- In the second quarter of 2006, compared with the same period in 2005, primary and final energy consumption fell. But coal burn increased – thus wiping out any possible CO2 savings from lower consumption of energy. The use of coal in electricity generation was up 10½ per cent compared with the same period a year earlier, while gas supplied 14 per cent less electricity.⁶
- 66% of coal used in the UK is imported. Most of this comes from Russia, Australia and South Africa.⁷ The additional emissions that arise from transporting coal over such large distances only add to the problem of burning the fuel in power stations.
- The UK produces the 3rd highest amount of electricity from coal in the EU, after Germany and Poland.⁸

¹ Blair's Labour Party Conference speech

² Writing in The Sun, 30 October 2006

³ Generating power close to where it's needed, and capturing any waste heat to heat local buildings.

⁴ E digest of Environment Statistics, DEFRA, 2006, table 5

<http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>

⁵ Digest of UK Energy Statistics, Long Term trends table 2.1.2

<http://www.dti.gov.uk/energy/statistics/source/coal/page18529.html>

⁶ Energy Trends, DTI, Sept 2006. <http://www.dti.gov.uk/files/file34201.pdf>

⁷ DUKES, 2006, p43

CO2 EMISSIONS

- The energy supply sector is the biggest single contributor to the UK's carbon dioxide emissions. In 2004, **37 per cent of carbon dioxide emissions were from energy industries**, 21 per cent from road transport, 18 per cent from other industries and 16 per cent from residential fossil fuel use.⁹
- CO2 emissions from electricity and heat production are going up. They were 154 MtCO2 in 1998 and 171 MtCO2 in 2004.¹⁰
- Overall (not just in the energy sector), UK CO2 emissions are rising.¹¹ Since Labour came to power in 1997, CO2 emissions have increased by 2.3% - from 549 MtCO2 in 1997 to 561.5 MtCO2 in 2005.
- This puts **carbon dioxide emissions in 2005 at only 5.5 per cent below 1990 levels**.¹² While the UK's Kyoto target – to reduce *greenhouse gas* emissions (CO2 plus 5 other industrial gases) by 12.5% below 1990 emissions – has already been met, the UK has two additional domestic targets based on CO2 reductions only. CO2 is the main greenhouse gas, responsible for about 84% of overall UK greenhouse gas emissions in 2004. The domestic target, promised in the 1997 Labour manifesto and in each election manifesto since, is to reduce emissions of carbon dioxide by 20 per cent below 1990 levels by 2010, and to put the UK on a path to reduce carbon dioxide emissions by 60% by 2050. With only 5.5% reductions achieved, clearly the UK is way off course.

Blair: bankrolling increased emissions from coal

Coal emits more CO2 per unit of energy generated than any other fuel, yet the Government has a number of policies that benefit coal over cleaner fuels such as gas and renewables. Greenpeace has identified no less than six separate Government policies that offer financial advantages to burning coal or that help coal-fired power stations avoid the costs of EU pollution legislation:

• **Coal Investment Aid programme**

The Coal Investment Aid programme is intended to support the creation of additional jobs in the coal-mining industry, but it does this by allocating scarce budgetary resources to coal mining corporations (most of it to one corporation, UK Coal). The resources would be better spent on retraining miners for careers in more sustainable industries with a longer future. Such subsidies could assist small-scale decentralised generation or aid expansion of the existing infrastructure to accommodate new renewable installations. Both decentralized generation and renewables-linked infrastructure expansion would enhance British energy security.

• **Renewables Obligation Credits**

Coal-fired power stations receive Renewables Obligation Certificates (ROCs) if they mix biomass with coal. This can actually lead to an increase in greenhouse gas emissions and other pollutants because biomass has a lower energy content than coal and more coal may be used to compensate. The financial reward ROCs represent make coal-burning more

⁸ Key World Energy Statistics, IEA, 2005 p25

⁹ E digest of Environment Statistics, DEFRA, 2006,

<http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>

¹⁰ E digest of Environment Statistics, DEFRA, 2006, table 5

<http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>

¹¹ E digest of Environment Statistics, DEFRA, 2006,

<http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>

¹² *ibid*

financially attractive to generators and may therefore lead to more coal being burned instead of cleaner options, such as gas, that emit less CO₂. At the same time, investment in biomass co-firing distracts capital flow from renewable energy sources, such as wind, solar and tidal, that provide much larger environmental benefits. It also undermines the development of dedicated biomass plants that represent the cleanest and most efficient way of using the local, sustainable biomass resources we have.

• **EU Large Combustion Plant Directive**

To avoid the costs of pollution abatement for coal-fired power stations, the Government is bending the rules of the EU Large Combustion Plant Directive. This Directive is intended to reduce emissions of harmful acid gases, but the UK is intent on interpreting the Directive in a way that will allow old coal-fired plants to burn more coal, emit more pollution and operate for longer than intended by the Directive:

a) Start-up and shut-down times have been excluded from emissions calculations. Many coal-fired power stations regularly start up and shut down (some on a daily basis). Each operation takes about two hours to complete, and this means a substantial amount of emissions would go unrecorded.

b) The Directive requires operators to either keep sulphur and nitrogen emissions within specified limits or for operators to opt out of the Directive permanently and close after 20,000 hours of operation. The UK Government will allow coal-fired plants to opt out now but opt back in until the end of 2008 in a bid to ensure coal remains in the UK's energy mix for as long as possible.

c) The UK Government wants to divide a power station up into separate units so that each boiler counts as a separate power station. Because power stations consist of four or more boilers that are rarely all used at the same time, such a definition would allow each boiler 20,000 hours of operation. This could double the running hours of some plants and lead to emissions higher than would otherwise be permitted.

d) The Government has decided to subject power stations to different rules from the rest of UK industry. It will specify an Emission Limit Value for each power station rather than placing them under the single national emissions 'bubble' that the rest of industry must operate under. Again this leaves scope for much higher levels of coal burning because there will be no overarching cap on generators emissions.¹³

• **Business rates**

Business rates have been changed so that coal-fired power stations now pay less and renewable generators pay more. This change in rates is worth £55 million a year to coal-fired power stations.¹⁴

• **EU Emissions Trading Scheme**

Electricity generators using coal are given extra allowances to emit CO₂ under the EU Emissions Trading Scheme: the more coal that the generators use, the more credits they get (CO₂ is currently worth around 10 Euros a tonne). This is akin to a free handout of capital for CO₂ emitting power stations, with windfall profits for power generators estimated at £800m a year in the first phase of the ETS¹⁵. Under the Government's plans, generators will be able to sell these credits if they turn their power stations off at opportune times, enabling them to profit further by 'gaming' with their allocation.

• **New Electricity Trading Arrangements**

Electricity trading arrangements brought in by the Blair Government favour methods of electricity generation that can be turned on and off quickly to meet fluctuating prices. Coal stations are able to do this better than other, cleaner forms of generation like wind and gas.

¹³ ENDS report 369, October 2005

¹⁴ ENDS report 258, November 2004

¹⁵ *Implications of the EU Emissions Trading Scheme for the UK Power Generation Sector*, a report for the DTI by IPA Energy Consulting, November 2005 <http://www.dti.gov.uk/files/file33199.pdf>

These policies help make coal a more attractive proposition than gas and renewables. Together with the rising price of gas on the world market, they have led to an increase in the use of coal under the Blair Government and a consequent increase in the UK's CO₂ emissions. This is not even good news for British miners as nearly all of the increase is accounted for by imported coal.

Time to Decentralise Power

The only sustainable solution to climate change and energy security is to reform the centralised UK energy system. Currently, two thirds of the energy from power stations in the UK is lost as wasted heat up the chimneys and down the power lines as it is produced a long way from where it is required. We need to generate power close to where it is needed, allowing us to use both the heat for central heating and hot water and the electricity. This is known as a decentralised energy system. We also need a massive uptake of energy efficiency and renewable energy.

Sounds revolutionary? Other countries in Europe already generate power locally and use renewable technologies as well. Decentralised energy systems account for 50% of Denmark's electricity production. Closer to home, Woking council has slashed its carbon emissions by 77% since 1990 through a strategy of decentralising its energy production and reducing its energy use. The result is cleaner, cheaper, more efficient energy than will ever be possible from our large, centralised coal (or nuclear) power stations.

Nuclear power has no role to play in tackling climate change. Nuclear power will cost the Earth, will not stop climate change, produces deadly waste and is a target for terrorists. Nor is nuclear the answer to energy security - nuclear power only produces electricity and thus only marginally deals with hot water, central heating and cooling, which come mainly from gas. Furthermore it plays no role in providing power for transport. So its overall contribution to total UK energy demand is small - only 3.6%. Therefore even replacing our existing fleet of nuclear reactors over the coming decades will still leave us needing significant amounts of energy from other sources.

If the government is worried about becoming over dependent on foreign gas supplies, then the answer lies neither in more coal burning nor in nuclear expansion, but in decentralised energy. In a decentralised energy system, the heat produced as a by-product of creating electricity is captured and used to heat people's homes and businesses, instead of using extra gas to do this. This is why decentralised energy systems not only cut our CO₂ emissions, but slash our use of gas too. A study commissioned by Greenpeace and the GLA showed that by 2025 London could cut CO₂ emissions by 27.6% by following a decentralised energy pathway for the city. And that's without using nuclear power. Furthermore, **London's gas consumption could be 7-15% lower under a decentralised energy scenario** than under a centralised nuclear scenario.

Greenpeace is calling on the government to:

1. Switch the UK to decentralised energy

Decentralised energy involves generating power close to where it's used. At the moment the UK is mainly powered by coal, gas and nuclear stations situated many miles from where energy is used. These power plants waste two-thirds of the energy they generate because heat escapes up their cooling towers or in their cooling water, whilst electricity is lost as it's transmitted across large distances on the out-dated national grid. The Government should regulate and fund changes to local electricity networks to encourage uptake of combined heat and power (CHP) plants and local renewable energy generation at domestic, community and district level.

2. Ensure that no more fossil-fuelled power stations are built in the UK unless they include heat capture, which could double their efficiency

3. Rule out a new generation of nuclear power stations

4. Facilitate the rapid expansion of renewable energy sources

Wind and solar power work well with a decentralised energy system. The government should ramp up the funding for domestic renewables and ensure a fair price when domestic producers sell renewable electricity back to the grid. Large scale offshore wind and emerging marine technologies such as wave and tidal could also work in a decentralised energy system feeding in to areas of high demand. The Government should fund power grid connections for offshore renewable energy to ensure the full development of the UK's huge wind, wave and tidal power capacity

5. Support expansion of combined heat and power (CHP) generation

The benefit of localised power stations is that the heat normally thrown away can be used – thereby more than doubling the efficiency of the plant. This is called combined heat and power or CHP. To best use that heat we need heat networks to pipe the hot water from the plant to the buildings where it can be used. All new housing developments and public and commercial buildings should be required to plan in heat networks so that CHP can be used to meet their heating, hot water and electricity needs.

6. End all government subsidies, at home and abroad, for dirty fuel industries

All subsidies for oil, coal and nuclear power – including export credit guarantees – should be stopped, and this money invested instead in renewable energy schemes.

7. Set much tighter restrictions on UK industry emissions of CO2 under the EU Emissions Trading Scheme and work with the EU to make the whole scheme much stronger.

ENDS

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