

Open-cast coalmining in the South Wales valleys

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Introduction

While both the United Kingdom and Welsh governments are committed to reducing greenhouse gas emissions to mitigate climate change, the UK still depends on coal to meet its energy needs. As coal is the 'dirtiest' fossil fuel, producing the most carbon dioxide per unit mass when burned, this dependence presents a significant problem. The 2008 Climate Change Act binds the UK to at least an 80% reduction in greenhouse gas emissions against a 1990 baseline by 2050, and 34% by 2020. The Welsh Government similarly subscribes to European Union objectives to cut greenhouse gas emissions by between 80 and 95% by 2050, and is committed to cutting emissions in Wales by 3% per annum from 2011 in policy areas under its control. However, the UK still depends on coal for some 30% of electricity production, rising to over 40% in periods of peak demand in winter. In 2011, the UK consumed 51.2 million tonnes of coal, burning 41.8 million tonnes of that in power stations. Carbon dioxide is the most significant greenhouse gas, and so coal is the worst choice fuel as it produces around 910 grams per kilowatt hour (kWh) compared to some 500 grams for gas and zero for nuclear power and renewable sources such as wind.

In the South Wales Valleys, one opencast coalmine near Merthyr Tydfil, Ffos-y-Frân, is expected to mine almost 11

million tonnes of coal between 2007 and 2025. This coal will produce some 30 million tonnes of carbon dioxide when burned. Covering 367 hectares, Ffos-y-Frân is a very big mine which its developers present as a land reclamation scheme because it is on the site of previous coalmining operations. Ffos-y-Frân is one of a number of new generation open-cast coalmines being developed in Wales. Just over the hill from Merthyr Tydfil, near the small town of Rhymney, another open-cast mine is proposed by the same consortium. If this Nant Llesg mine receives planning permission it will produce up to 9 million tonnes of coal and be responsible for approximately 21 million tonnes of carbon dioxide.

Findings

Historically, the area around Merthyr Tydfil and Rhymney was known for reserves of iron-ore, coal, limestone and water. During the Industrial Revolution this meant ideal conditions for the development of ironworks which contributed hugely to British economic and naval power, much of the iron being used to build merchant vessels and warships. Unfortunately, most of the vast industrial wealth generated left the area along with the coal and iron. So, the people of Merthyr Tydfil and Rhymney did not benefit in proportion to the labour provided by their communities, while their landscape was scarred from mining and industrialisation. In the 1970s and 1980s there was a resurgence of coalmining in the area, this time using



opencast or strip-mining techniques rather than underground or deep mines. This was an era of changing relations between coal, the state, private enterprise, mining communities and the environment. Thus, the resurgence of coalmining was linked with the rise of private mining companies and ran parallel to the crisis in the deep-mining sector marked by the 1984-5 miner's strike.

With higher unemployment, lower than average life expectancy, a greater incidence of illnesses which limit people's ability to live a full life and to work, some areas of Merthyr Tydfil and Rhymney are among the most deprived in Wales. Coal remains part of the fabric of everyday life and culture, present as the pneumoconiosis and emphysema suffered by ex-miners as well as the extensive spoil-tips in the landscape. The current resurgence of open-cast coalmining was spurred by rises in the price of imported coal in 2007 and 2008. According to the International Energy Agency, some 41% of total world electricity generation is fuelled by coal. Indonesia, Australia, Russia and the USA are the world's largest exporters of coal, while the main importers are the People's Republic of China, Japan, South Korea and India. In 2011, international trade reached 1,142 million tonnes. In the same year, the UK imported 32.4 million tonnes of coal, mining around 18.3 million tonnes.

Places like Merthyr Tydfil and Rhymney have repeating histories of the exploitation of their labour and natural resources. The deprivation of the people and the degradation of the landscape constitute social and environmental injustice. The current round of open-cast coalmining is likely to compound this situation. In this time of decreed economic austerity, the issue of jobs dominates the debate over existing and proposed coalmines.

The mining companies claim that jobs will be created while community groups opposed to developments argue that these jobs will be few and highly specialised, and thus not open to local people. Moreover, established local businesses claim that they will be forced to shed jobs as their marketing depends on 'the clean air, water and green landscape of Wales'. These days, this regenerated area strives to offer itself as a tourist attraction, boasting dramatic mountain scenery. However it is presented by developers, open-cast coalmining means a dirty, black hole in the ground, contradicting the area's desired landscape aesthetic. Environmentally, local communities are subject to the dust and noise of mining operations. Finally, while supporters argue that we need coal to ensure national energy security, opponents counter that it is fuelling global climate change and we must make the transition to lower and zero carbon sources of energy immediately.

Conclusions

Government policies of global climate change mitigation and national energy security clash at the local scale. It is in the communities of places such as Merthyr Tydfil and Rhymney that the contradiction is most evident, experienced as continuing social and environmental injustice by people living their everyday lives. If economic recession continues to deepen, however, the future of opencast coalmining may be decided on neither climate change nor energy security considerations but on the net sum of jobs created versus jobs lost. Moreover, fluctuations in a volatile market mean that the price of coal has dropped since peaks in 2007 and 2008. Despite the high cost of transportation, this situation favours continued import of coal rather than investing heavily in new opencast coalmines in the UK. While relying on imported coal may reduce social and environmental injustice in Merthyr Tydfil and Rhymney, however, the low price surely means that those injustices are exported to communities in places such as Indonesia, Australia, Russia and the USA. Meanwhile, whether the UK continues to burn imported or domestic coal makes no difference to the scale of emissions of carbon dioxide. With mounting opposition to windfarm development in some quarters and an uncertain future for nuclear power, the UK and Wales may remain dependent on fossil fuels and thus miss commitments to reduce greenhouse gas emissions. Although community groups in Merthyr Tydfil and Rhymney want government to make the change to zero-carbon energy sooner rather than later, it seems that such places will be made complicit in inter-generational climate injustice while experiencing continued social and environmental injustice in the here and now.

Further information

- Opencast Coal-mining in Wales - Development of the industry in terms of social and environmental impacts: <https://www.foe.co.uk/sites/default/files/downloads/opencast-coal-mining-wales-87943.pdf>