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Coal-fired injustices must be set straight

Health trumps profit, write Nick Higginbotham and Ben Ewald.

The Medical Journal of Australia article on the health impacts of coal mining and burning raises two unresolved questions: what are the local health costs of pollution from these industries, and how can affected residents be protected?

Dust particles less than 10 microns in size (PM10) are linked to respiratory symptoms and increased hospital admissions. Especially affected are the elderly, children and people with asthma or heart disease. Even more dangerous are the smaller particles (PM2.5) which can penetrate deep into the lungs, increasing the risk of lung cancer.

Burning coal to generate electricity produces a host of other harmful substances, including sulphur dioxide (SO₂), oxides of nitrogen (NO_x), and toxic metals (like arsenic, chromium, lead, mercury).

Until recently, Upper Hunter residents has little access to air-quality information, apart from their own senses, which told them that dust often covered everything, the sky has an unnatural orange tint, and the kids seemed to have asthma.

The National Pollutant Inventory gives sobering results; estimates of PM10 emissions from coalmining and power generation in the Upper Hunter rose from 37,200 tonnes in 2003 to 50,000 tonnes for 2010 – about 58 per cent of such emissions for NSW.

Similarly, PM2.5 were calculated at 2242 tonnes in 2010, 42 per cent of the state total, while the area's power stations released 112,000 tonnes of SO₂ and 62,600 tonnes of NO_x in 2010.

The environmental injustice of this burden of pollution speaks for itself.

What about community concern for the toxic orange plumes that can rise from mine sites after blasting? These contain a variable amount of nitrogen oxides, depending on the quality control of the blasting.

The toxicity of these plumes was highlighted by mishaps at two Queensland open cut coalmines last March; 24 mine workers were taken to hospital after exposure to plume gases despite being 4.2 kilometres from the blast zone.

The April 2010 *ABC Four Corners* documentary, *A Dirty Business*, capped a decade-long campaign to get the state government to take action. The network of real-time air quality monitors was activated, a five-year record of air monitoring by industry (68 sites) was posted, and public health officials analysed records linked to air pollution.

The state's chief medical officer appointed an independent expert advisory committee on air quality to review these actions, meet with the Singleton Health Environment Group, and design a health study.

It's a relief that these respected scientists have assumed responsibility, set a broad agenda, and work closely with state official and the Singleton Healthy Environment Group.

Monitoring has begun for PM1 and PM2.5 to identify sources and make-up of particles; blasting hazards were reviewed with an eye toward stricter guidelines.

However, a study awaits more air monitoring data to ensure the study design can produce a clear result about the effects of pollution.

The landscape has changed since April 2010, but momentum must not be lost. Upper Hunter residents live in real-time, going about their daily lives in potentially hazardous air, unprecedented in NSW.

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