

TITLE: Coal companies talking rubbish on energy poverty

AUTHOR: Roderick Campbell, Cameron Amos and Andrew Scarlett

PUBLICATION: Business Spectator

PUBLICATION DATE: 7/11/14

LINK: <http://www.businessspectator.com.au/article/2014/11/7/policy-politics/coal-companies-talking-rubbish-energy-poverty>

The term “energy poverty” refers to people who do not have access to electricity and clean cooking facilities. Globally, 1.3 billion people do not have access to electricity in their houses and 2.6 billion people cook by burning coal, wood and other solid fuels. This has major impacts on people’s health, safety and quality of life.

The coal industry is very vocal in promoting energy poverty and pushing coal as a solution to it. The head of major coal company Peabody Energy describes energy poverty as “the world’s number one human and environmental crisis”.

However, what Peabody says and what it *does* about energy poverty are very different. Although the company contributes to many charitable causes, it does not donate money, staff time, expertise or discounted fuel to any project that directly alleviates energy poverty.

Peabody’s only contribution to energy poverty is maintaining a website and social media page which promotes coal as the solution to the problem.

While Peabody talks about energy poverty, other organisations act. The United Nations, World Bank, governments and non-government organisations are addressing energy poverty through programs relating to electrification, lighting and improving access to cooking facilities, often in partnership with the private sector. The largest program is the United Nations and World Bank ‘Sustainable Energy for All’ initiative which has links with governments in 85 countries.

None of the main energy poverty initiatives promotes the use of coal.

Perhaps because of this, the coal industry does not support any of the main energy poverty initiatives.

Other coal companies regularly echo Peabody’s statements on the importance of addressing energy poverty, however unlike Peabody, some of them do support direct efforts to alleviate energy poverty, such as:

- Indian coal company Adani provides solar-powered street lighting to rural areas in India.

- BHP Billiton supports solar projects in Pakistan.
- Rio Tinto connected villages in Peru to hydro and gas-fired electricity grids.
- Anglo American are piloting an off-grid electricity system for South African villages using platinum and methanol fuel cells
- Thai coal company Banpu built a mini grid for villages near a mine in Indonesia, powered by a diesel generator.

Despite extensive searches and contact with companies and mining lobby groups, we could not find a single example where coal companies have supported coal-powered energy poverty alleviation projects.

The reason that even coal companies do not use coal-fired power to assist with energy poverty alleviation is that it is not economically rational to do so. The cost of other energy sources, including renewables, is now competitive with coal-fired power at a utility scale. More importantly, off-grid and mini-grid initiatives avoid the large upfront costs associated with coal-related infrastructure making them a much better investment for households, communities and governments affected by energy poverty.

In light of this economic reality, many of the claims made by Peabody Energy and other coal industry supporters do not withstand scrutiny:

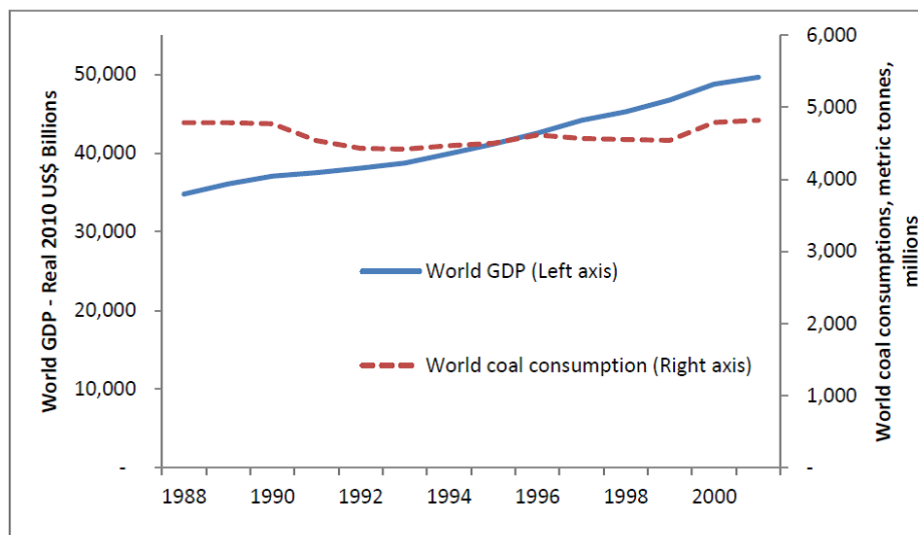
Claim 1: Coal use drives world economic growth

A regular claim made by the coal industry is that coal use causes economic growth. This claim mistakes correlation with causation. It is not coal that causes economic growth, but economic growth can lead to increased coal use.

In fact coal use has grown much slower than economic growth. If world GDP had grown at the same rate as coal consumption since 1980, today's world economic output would be almost \$US12 trillion lower than it is.

Even the correlation between economic growth and coal use is not as strong as the coal industry claims. Official data sources show that from 1988 to 2002 world coal use was flat while economic growth was strong, as shown below:

Figure 1: World GDP and coal consumption



Sources: United States Department of Agriculture Economics Research Service (2014) International Macroeconomic Dataset, US Energy Information Agency (2014) International Energy Statistics

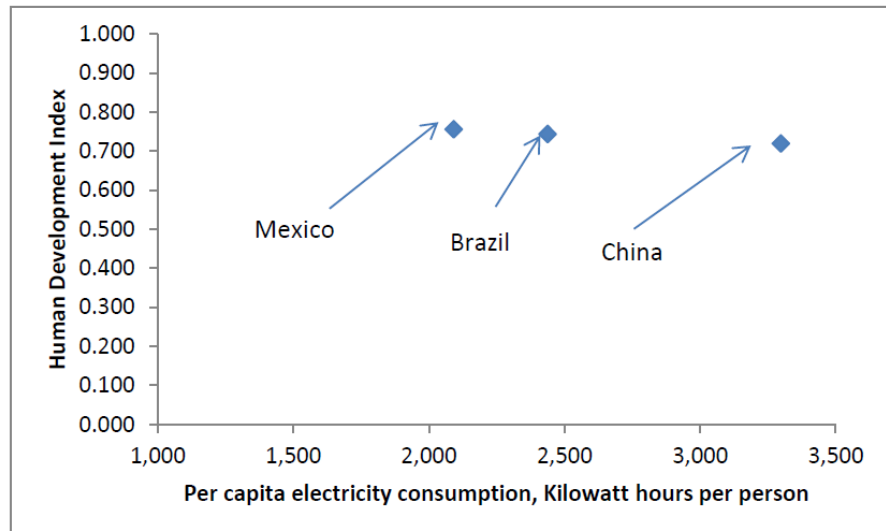
Further analysis of official data shows that developed countries have reduced coal use while economic growth has been unaffected. Developing countries are now the major coal users, but with alternatives becoming cheaper, they are likely to reduce coal use much earlier in their development.

Claim 2: Coal use increases life expectancy and quality of life

Peabody Energy claims that coal use has led to increased life expectancy over the last 1,000 years of human history. Life expectancy and coal use can both be correlated with economic growth, but it is not coal use that causes any increase in life expectancy. On the contrary, coal use is often associated with lower life expectancy due to health impacts of indoor and outdoor air pollution and the global health impacts of climate change.

Increasing electricity use from very low levels contributes to increases in quality of life as measured by the United Nations' Human Development Index. Once basic electricity access is achieved however, there is little correlation between quality of life and electricity use. For example, Mexico, Brazil and China have similar HDI scores, but have widely differing electricity use per person. In fact, Mexico uses the least electricity per person and has the highest HDI score, while China uses the most electricity with the lowest HDI score, as shown below:

Figure 2: Human Development Index and electricity use, Mexico, Brazil and China



Sources: United Nations Development Program (2014) Human Development Reports, World Bank (2013) Electric power consumption

Claim 3: Coal is getting cleaner

Major improvements in the emissions standards of coal-fired power stations have been achieved in relation to sulphur, nitrogen and particulate pollution, which affect human health. Coal-fired power remains, however, a major source of carbon dioxide emissions which cause climate change.

To make serious reductions in coal-fired power greenhouse emissions, carbon capture and storage is required. The capacity for carbon capture and storage is low – only 13 projects are operational worldwide, sequestering only 25 million tonnes of carbon dioxide per year, or less than one-tenth of 1 per cent (0.07 per cent) of the world's total 33,376 million tonnes of emissions each year.

The problems of energy poverty are real and large. Promising solutions are becoming available and many organisations are working to hasten their implementation. Coal companies are not, in general, major contributors to energy poverty alleviation efforts. When they do contribute, it is ironically with support for energy sources other than coal. Claims that coal use is vital for economic growth and quality of life are not supported by economic data and should be dismissed as coal industry public relations rather than a genuine contribution to alleviating energy poverty.

**This article is an excerpt from the report All Talk, No Action: The coal industry and energy poverty published by The Australia Institute. Reproduced with permission.*