Less value, more harm: A reality check on coal



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Bulk Carriers Moored off Hay Point at Great Barrier Reef

@Greenpeace/Dean Sewel





Executive summary

Clouds of smoke billow from under the haze in the gloomy sky in China, Shanxi province

For every dollar Australia now earns from coal, 67% more carbon dioxide is being exported than five years ago. For every coal job generated, 45% more CO₂ is being exported.

Executive summary

The Australian coal industry's contribution to the economy is rapidly shrinking – even as its contribution towards global warming is spiralling out of control.

The coal industry claims to be an indispensable part of the economy and labour market, but the truth is very different. Although the amount of coal Australia produces continues to increase, albeit slower than expected, its economic contribution and significance to Australia's economy is diminishing rapidly.

For every tonne of coal produced Australia is receiving less income, fewer jobs, and lower royalties and taxes. The industry's contribution to the national GDP has dropped by 55% since 2008/9.

As production of Australian coal increases, so too does the environmental harm. On current projections, the carbon emissions exported in Australian coal will soon overtake the carbon exported in Saudi Arabian oil. Even if Australia meets the 2030 domestic emissions reduction commitment it made in the Paris agreement, the carbon saved will be wiped out seven times over by increased coal exports.¹

Shrinking value

Since the peak in the resources boom, the contribution of the coal industry to Australia's economy has plummeted. The value of coal exports has fallen by 30% from \$54bn to \$38bn.² At the same time, coal exploration expenditure has plunged from nearly \$1bn a year to just over \$200m.3 What was an industry worth around nearly 4.5% of GDP has shrunk to 2%.4 In other words, the coal industry is less than half as important to the economy as it was just a few years ago.

Domestically, coal use has stagnated as half a dozen coal-fired power stations have been mothballed or closed down, with more closures planned.5 As the Department of Industry, Innovation and Science noted last year: "Black and brown coal-fired generation has fallen to its lowest level since 1996–97.6" What makes the contraction in the value of the coal industry doubly significant, however, is that the national economy has grown by over 60% since 2009.7

The Minerals Council of Australia (MCA), which represents the coal industry, paints the downturn as temporary by cherry-picking its data. According to its 'Coal Hard Facts' document, the MCA claims that export values will increase from \$37bn in 2014-15 to \$47bn in 2019-20." 8

However, the most recent projections from the federal Department of Industry, Innovation and Science suggest coal exports' value will keep on falling in real terms for years to come. In 2016, it forecasts the combined value of thermal and metallurgical coal exports to shrink by nearly 10% from \$38.4bn to \$34.9bn.9 Even five years from now, in spite of a 5.3% increase in volumes, it does not expect any rise in the value of coal exports. By 2021 the Department of Industry, Innovation and Science expects coal exports to be worth \$33bn.10

The MCA cannot claim ignorance of these projections. When they were released, the MCA put out an upbeat media statement highlighting the projected growth in the value of other mining commodities, and the likely increase in coal export volumes - but they concealed the muchless-rosy projections for coal's dwindling value. 11

The projections five years from now are doubly significant once the anticipated growth in Australia's economy is factored in. By 2021-22, the Australian economy is projected to grow by another 20% to around \$2.3tn.12 If that happens, coal exports will be worth just 1.45% of GDP, based on the Department of Industry, Innovation and Science's projections. But for the increased export volumes, the industry's contribution to the economy would be falling even faster.

Coal's decline has not held back the Australian economy, which has continue d to grow relatively faster than other developed countries. 13 The GDP contribution of other sectors has picked up the slack. In the past five years, for instance, healthcare has grown in value by 30%; financial and insurance services by 25%; construction by 28%; and iron ore mining is up 100%.14 A host of industries been more than able to fill the vacuum left by a struggling coal industry.

Other industries are also filling the void in export markets, leaving coal much less important in our trade with the rest of the world than in the recent past. Tourism related services (which includes education exports) are overtaking coal as Australia's second largest export. ¹⁵ Since 2008-09 while the value of coal exports has shrunk by 30%, total exports have grown by 13%. Where coal exports used to account for over 22 percent of Australia's total goods and services exports, today they account for just 11.9%.¹⁶ As an exporter, coal is now nearly half as significant as it was eight years ago.

Fewer jobs

Since the boom peak in 2012, nearly **20,000 jobs have been lost in the coal industry.** ¹⁷ Low coal prices have forced cutbacks and led to the shelving of numerous projects. Many job losses are a result of the investment and construction phases of coal mines giving way to the much less job-intensive production boom. Once a mine is built, far fewer people are required to run it.

While the coal industry has been shedding jobs, the rest of the economy has been on a hiring spree. Since 2008-09 the total labour force has increased by over 1.1m jobs to nearly 12m. 18 The number of jobs has increased by 25% in real estate; by over 30% in retail trade, by 13% in construction, by 24% in computer services to name a few. 19 For every job lost in coal mining in recent years, many more have been generated in other industries. In health care alone more than three times as many fulltime jobs have been added as have been lost in the coal industry.²⁰ Renewable energy generates 11 times as many jobs in Australia as coal for every unit of energy being produced.²¹

Today the coal industry employs fewer than 1% of Australians, and that figure continues to fall.²² Currently, much is being made of the jobs that might be generated if large new mines such as Adani's Carmichael mine proceed in Queensland's Galilee Basin. However, most of these jobs are temporary construction jobs that will disappear once production ramps up. And even if these projects proceed, the number of jobs created will be dwarfed by the 350,000 additional jobs the economy is likely to generate by 2020.23 So, as employment grows much faster in other parts of the economy coal's significance as an employer is set to keep shrinking.



Renewable energy is generating

11 times as many jobs

in Australia as coal for every petajoule of energy being produced.









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Less federal revenue

Taxes and royalties collected from the coal industry by governments have also shrunk dramatically in the past five years. As the Queensland Resources Council has admitted publicly, a third of coal mines in that state are not profitable at current coal prices, with that figure as high as 50% for thermal coal mines.²⁴ Nil profit means nil company tax. So, perhaps not surprisingly, the federal government receives a tiny fraction of its revenues from the coal industry.

According to the Minerals Council of Australia, between 2014 and 2018 the coal industry expects to pay more than \$10bn in tax to the federal government. If that figure is correct, and the coal industry contributes around \$2.5bn in federal taxes annually, it accounts for a mere 0.63% of the government's annual revenues of \$398bn.

Against the modest revenue being collected from the coal industry, close to \$1bn is being paid out to the industry in the form of fuel tax credits. Since 2008-9, the amount being claimed by the coal industry has risen by a massive 46%.²⁷ Today, coal mining claims more in fuel tax credits than any other industry – more than agriculture, forestry and fishing combined; more than road and rail freight put together.²⁸ An industry worth 2% of GDP is receiving 15% of the fuel tax credits.²⁹



A coal trains crosses a bridge over a fresh water creek in the Bowen Basin.

Meanwhile, both the carbon tax and minerals resource rent tax (MRRT) have been abolished after fierce lobbying by mining companies. Now the coal industry is pushing to have the company tax cut by a third to 20% in order to improve their international competitiveness. ³⁰ Under the circumstances, the net contribution to federal government revenue from the coal industry shows little sign of increasing any time soon.

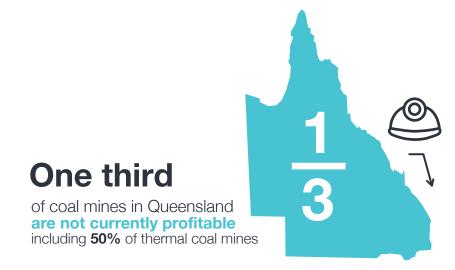
_ess state revenue

At the state level, governments are also relying less on the coal industry to fund government services. Most Australian states get no significant revenue from coal. With the abolition of the carbon tax and the MRRT, there is even less prospect that non-coal producing states will share in any significant benefit. The state governments that do benefit from coal are Queensland and New South Wales, and to a much lesser extent Victoria (which has no black coal or coal export industry). Yet, even in Queensland and New South Wales coal's contribution has crashed in spite of rising production volumes.

In 2009 the Queensland government received 8.2% of its income from coal royalties.³¹ Six years later that figure has been cut by more than half to just 3.4%.3233 Coal royalties once provided the state with over \$3bn in annual revenue out of a total of \$37bn. Today, they generate around \$1.68bn out of a much larger revenue base of \$50bn. Because higher royalties apply in Queensland when coal is over \$100 per tonne the collapse in coal prices has magnified the decline in revenues.34

In New South Wales coal royalties are now nearly 37% less significant a funding source for the state government than they were in 2009, having fallen from 2.6% of revenue to 1.65%.35

Just as federal taxes paid by the coal industry are substantially offset by fuel tax credit claims, the coal royalties paid to state governments are eroded by billions of dollars in taxpayer funding in recent years for coal industry infrastructure. It might be billed as "multi-user infrastructure" but in practice, most of the port, rail and road funding is almost exclusively for use by the coal industry.36



A changing equation

Australia's economy is already moving on from coal, and our political leaders need to catch up with that reality. In spite of slavish bi-partisan support for the coal industry, the nation's prosperity is depending less and less on coal. For every tonne of coal produced Australia is receiving less income, fewer jobs, and lower royalties and taxes. Coal exports are now a minor contributor to the nation's economy, providing 2% of GDP, less than 1.5% of tax revenue, and less than 1% of jobs.37 Other industries now account for over 88% of exports too.38

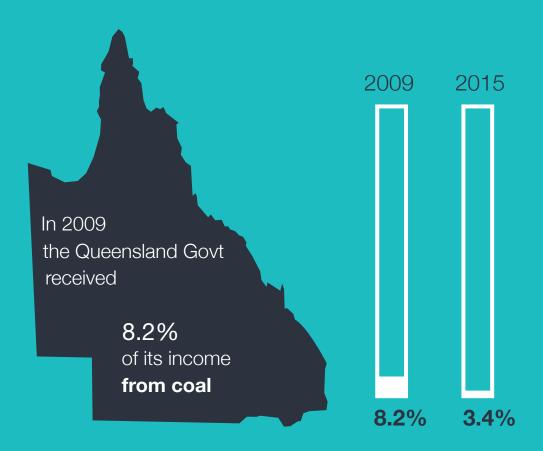
Yet, while coal is becoming less significant to the economy, it is doing more and more harm internationally as the carbon being exported continues to rise. For every dollar Australia now earns from coal 67% more CO2 is being exported than five years ago. For every coal job generated, 45% more $\rm CO_2$ is being exported. 39 If production is allowed to expand as currently projected, by 2030 Australia will be exporting more than three times as much carbon as it produces domestically. Our commitment to fighting climate change will be irreversibly compromised, the billions of dollars budgeted for the Emissions Reduction Fund to save emissions within Australia will be completely undermined.



Greenpeace and Tcktcktck volunteers raise a wind turbine on the beach at dawn in Durban, South Africa.

As the environmental cost of coal rises and the economic benefit keeps falling, the national interest equation is changing. The idea that coal is essential to a prosperous Australian economy is simply not grounded in reality. It is an increasingly dangerous anachronism.

Far from being indispensable, the coal industry is something that Australia can and should dispense with if it wants both a prosperous economic future and a credible climate change response.



Last year, that figure was cut by more than half to 3.4%

Coal exports are now a **minor contributor** to the nation's economy, providing



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- 37. In relation to revenue, on the basis of previously noted percentages of federal, Queensland and NSW budgets and insignificant royalty revenue in other states, and the approximately \$2.5b contribution paid in tax federally by the industry (according to the Minerals Council of Australia), taxes raised from coal exports would be less than \$5.5b annually – just over 1% of taxes raised nationwide of \$433b in 2013-14, and an even smaller proportion today. See also: 5506.0 - Taxation Revenue, Australia, 2013-14, Australian Bureau of Statistics, 13 May 2015. Available at: http://www.abs.gov.au/ ausstats/abs@.nsf/mf/5506.0
- 38. Australian Trade Indicators value measures, (2015) Department of Foreign Affairs and $\label{trade-proposed} Trade, April \ Available \ at: http://dfat.gov.au/trade/resources/trade-statistics/Pages/trade-time-series-data.aspx$
- 39. In 2010-11, Australia exported 16.2kg of CO2 for every dollar of GDP value derived from coal exports. In 2015-16 it will export 27.1kg per \$ earned. In 2010-11, Australia exported 15,836 to f CO2 for every clirect job in the coal industry. In 2015-16 it will export 23,024 tonnes of CO 2 for every coal job. Export value & volume sources cited above: Office of the Chief Economists; employment source: ABS. This assumes 2.5 tonnes of CO2 per tonne of coal exported. "Table 1: Fuel Combustion Emission Factors" National Greenhouse Accounts Factors, 2014, Australian Government Department of the Environment, p. 11. Available at: http://www.environment.gov.au/system/files/resources/ b24f8db4-e55a-4deb-a0b3-32cf763a5dab/files/national-greenhouse-accounts-factorsdec-2014.pdf



