**Fuelled by coal: Piercing the mirage of a sustainable capitalist Australia**

**CATARINA DA SILVA**

The second decade of the twenty-first century ended with catastrophic bushfires across the Australian continent. In some states the bushfires began in September, well before the onset of summer. As early as 12 November 2019 a catastrophic bushfire warning was in place across most of NSW including greater Sydney. In an ominous start to the bushfire season, on this day fire threatened Sydney suburbs, and in some suburbs residents were told to leave or stay at their own peril. Almost 600 schools were closed. Those at risk from fire were told by NSW Rural Fire Service: “If you are threatened by fire, you need to take action to protect yourself…there are simply not enough fire trucks for every house. If you call for help, you may not get it. Do not expect a firetruck”. A thick cloud of toxic smoke descended on Sydney, Canberra and Melbourne, and travelled even as far as New Zealand, resulting in poor visibility and burning eyes and lungs for any who dared to venture outside.

For many, New Year’s Eve was a terrifying ordeal, such as the four thousand people fleeing an out of control fire in Mallacoota in Victoria’s East Gippsland region, who were forced on to the beach to escape the flames. With all roads out of the area closed, the sea offered the only refuge available to terrified residents and holiday makers who crowded into the water while the skies turned bright red and smoke closed in on them. It took the government over a week to fully evacuate the town. Victorian ALP premier Daniel Andrews invented a new category to declare Victoria in a State of Disaster, while days into 2020 NSW was declared in a State of Emergency. Deaths were rising, scores of people were missing and many thousands needed evacuating, while whole towns turned to ash. Emergency services chiefs warned that the crisis could go on for months, with fires expanding, creating their own weather patterns, and joining up to create “mega blazes” – far surpassing the damage caused by the Amazon fires that had created international outrage in 2019.

This came on top of an already significant environmental crisis. At the decade’s close over 99 percent of New South Wales was in a drought category, with nearly 44 percent of the state in intense drought.[[1]](#endnote-2) Large portions of NSW faced the potential of a serious water shortage crisis in the near future, the result of major multi-year droughts compounded by political neglect. Dubbo, a regional centre of nearly forty thousand people, faced the possibility of running out of water in the summer of 2020.[[2]](#endnote-3) Early in 2019, a mass fish die-off in the town of Menindee sparked heated discussion about drought, climate change and farming practices.[[3]](#endnote-4)

Meanwhile, the NSW Liberal-National Party coalition government has been trying to pass a bill that would curtail the power of planning authorities to consider climate pollution in its approvals process for new coal and gas projects. The deputy premier of NSW, John Barilaro, said that it was a “bloody disgrace” to link climate change with the dramatic early start to the fire season.[[4]](#endnote-5) As late as November 2019, Liberal prime minister Scott Morrison chastised those who tried to use the fires to discuss climate change, and claimed that there was no “credible scientific evidence” to link the fires to carbon emissions.[[5]](#endnote-6) To add insult to injury, in the 2019-20 financial year the Berejiklian government cut $28.5 million dollars – or 35 percent – from the capital expenditure budget for Fire and Rescue.[[6]](#endnote-7) In response, one family travelled from the mid-north coast to dump the charred remains of their home on the steps of the NSW Parliament, declaring, “When’s the time to talk about climate change then, if I’m standing in the wreckage of my own house?”[[7]](#endnote-8) There was plenty that’s political in these fires.

Indeed, the contempt shown towards NSW residents has a simple commodity at its heart: coal. Coal is a central feature of Australian capitalism and, as I will argue in this article, its importance to the economy means that the interests of the coal industry take precedence over other considerations, regardless of the party of government. In order to understand this dynamic I will discuss the history of the industry with a focus on NSW and Queensland, as well as exploring some of the dynamics around the development of Australia’s domestic energy supply. I will then move on to discuss what I consider the key driving factor of the Australian coal industry: the vastly profitable export market, which saw the Australian extraction industry expand faster than any other country’s between 2000 and 2017.[[8]](#endnote-9) Finally, I will consider the influence the coal industry wields in the sphere of parliamentary politics, as well as providing a critique of the politics of several ideas that dominate the climate justice movement in Australia. The crucial underlying argument I make is that any serious attempt to challenge the coal industry will by necessity need to challenge Australian capitalism as a whole.

## Australian coal: a black history

Andreas Malm’s book *Fossil Capital* exposes some of the dynamics of capitalism’s dependency on fossil fuels. Much of this dependence is historically embedded: Malm explains how coal became the energy source of choice in the industrial revolution, in particular displacing water mills in the early nineteenth century. Coal offered the emerging industrial capitalist class a number of advantages over water, in spite of water’s plentiful supply and relative efficiency. Coal-powered steam provided an uninterrupted and relatively mobile energy supply, allowing factories to set up in areas where they could access a more disciplined and reliable working class. Malm’s fascinating history explores a variety of factors that came together in the 1830s and 1840s to ensure that the industrial revolution was fuelled by coal, unleashing a path of development with fossil fuels very much at its centre.[[9]](#endnote-10)

Fossil fuel dependence continues to shape the global economy to this very day. Through pressures of economic and military competition, coal quickly came to dominate energy supply around the world. Today coal supplies around a third of all energy used worldwide and makes up around 38 percent of global electricity generation. It also plays a crucial role in heavy industry such as iron and steel production, as well as other industrial applications such as cement and alumina refining.[[10]](#endnote-11)

Coal has been a central factor in the development of capitalism in Australia, and in part this explains the industry’s political weight. To capture this reality, I will sketch a historical overview of the development of the Australian coal industry, with a focus on NSW and Queensland as the main producers of export grade black coal.

Unbeknownst to the colonial invaders, the eastern seaboard of what is now Australia happens to have several mammoth coal deposits. The fact that Sydney was founded on top of one of Australia’s largest deposits of black coal would fundamentally shape the development of NSW. Coal was discovered very early in the process of colonisation, reflecting its bountiful supply: as early as 1791 coal was discovered in a creek near Newcastle by convict escapees. Coal littered the Sydney Basin, and accidental coal discoveries seem to have been frequent in the early period of invasion. In the late 1790s coal was discovered at what later became the town of Coalcliff, near Wollongong, and by 1798 it was evident to the colonial authorities that there were significant deposits of coal around Sydney from Newcastle in the north, the Blue Mountains in the west, and down to the Illawarra/Shoalhaven in the south. Exploration and excavation began in earnest in the early nineteenth century, with all mining interests owned by the crown.[[11]](#endnote-12)

Early coal mining was brutal and conducted in poor conditions, and relied on convict labour. In both NSW and Tasmania, coal mining was used as a form of punishment meted out to the insolent and insubordinate. While rations and work hours may not have been substantially different to other work areas, coal mining involved harsh conditions and excessive punishment. Convicts forced to work in the mines were exposed to dangerous coal dust and damp conditions that left them vulnerable to diseases.[[12]](#endnote-13)

In the 1820s private enterprise entered coal mining in Newcastle, and in 1826 privately owned coal mining was established in Wollongong. This latter development came with its own dedicated military unit to keep order among convict labourers. By 1860 Newcastle mines were supplying NSW as well as the other colonies with coal, and were exporting to Europe. Well before the gold rushes that were so important to other colonies, NSW had developed a major extractive industry that reaped substantial export profits. Coal also drove infrastructural development. Wollongong harbour was developed in the 1860s to service mining needs, and the first shipment of coking coal sailed from there in 1868. Across NSW, shipping and rail often developed along with coal extraction. Similarly, technological imports and innovations were often in the service of coal extraction.[[13]](#endnote-14) Thus from very early on, coal was a major part of the NSW economy.

The NSW deposits had the economic advantage of being located close to urban centres and were comparatively accessible for transport. In Sydney as late as the 1940s there was still a colliery operating in what is now the upmarket inner city suburb of Balmain: it was considered “favourably located logistically” and was only shut down because of an explosion that killed two people and threatened surrounding working class housing.[[14]](#endnote-15) The logistically advantageous locations of both Newcastle and Wollongong, positioned close to sea access points, also drove early development there. For most of the twentieth century NSW dominated coal production and exports.

Coal was substantially more significant to NSW than other Australian colonies, although deposits of some significance would later be discovered in every colony or later, state. NSW was and is different to all these discoveries with the exception of Queensland, which I discuss below. NSW coal is largely high quality bituminous and thermal coal, or black coal as it is commonly known. Black coal is generally used in electricity generation or to produce coke for iron and steelmaking. It can also be used in other industrial applications such as cement and alumina refining. The high quality and large size of NSW coal deposits drove development beyond federation and continues to drive a significant portion of the economy. In 2012 47 percent of total raw black coal and saleable black coal production came from NSW.[[15]](#endnote-16) Only Queensland has deposits of similar significance, whereas most other coal deposits discovered in Australia are either low grade brown (lignite) coal or have not been large enough to be of such significance to the economy (see map on next page).

To give a sense of the significance of NSW deposits, in 2012 Australia was estimated to have 9.2 percent of world black coal deposits, making it fifth-ranked in the world. Twenty-four percent of these deposits are in NSW, and when assessed in terms of *recoverable* resource deposits NSW has 37 percent of Australian black coal. The Sydney Basin coal deposit is just marginally short of a third of all recoverable coal in Australia (31 percent), and is equal to the size of recoverable coal in the Queensland Bowen Basin.[[16]](#endnote-17) According to the NSW Department of Industry, in the 2015-16 financial year coal was worth around $13.2 billion to the state in exports, larger than the value of tourism and education combined, making it easily the state’s largest export earner. In 2015-16 the NSW coal industry produced 246.8 million tonnes of raw coal, yielding 191 million tonnes of saleable coal, worth nearly $14.6 billion – approximately 80 percent of total value of NSW mineral production.[[17]](#endnote-18)

While coal production has generally been a stable part of the NSW economy, its development has varied depending on global factors. The Great Depression saw the shrinking of the global economy, which flowed through to extractive industries including coal. Similarly demand increased with the massive expansion of heavy industry during the Second World War. This drove expansion of coal in both NSW and Queensland.[[18]](#endnote-19) The ebbs and flows of the global economy have generally impacted on the growth and contraction of the industry, reflecting its position as an export driven industry, the dynamics of which I discuss further below.

The experience in Queensland illustrates this process. Unlike in NSW, the growth of the Queensland coal industry was initially quite slow, due to the remote locations of many deposits.[[19]](#endnote-20) Queensland accounts for approximately 62 percent of all Australian black coal and 59 percent of recoverable black coal. The Bowen Basin alone accounts for 31 percent of recoverable black coal, while the Surat Basin accounts for 13 percent and the Galilee Basin 10 percent.[[20]](#endnote-21)

**Image 1: Major non-renewable energy resources in Australia**

Source: Geoscience Australia, *Australian Energy Resources Assessment*, 2019.https://aera.ga.gov.au/.

The remote location of these deposits was historically compounded by Queensland’s tropical climate, which resulted in frequent flooding that prevented efficient excavation. There was a significant coal discovery at Callide in the early 1900s but it wasn’t developed until the 1940s; similarly there was limited mining around Ipswich until the 1940s, in spite of known resources. The Second World War was part of the impetus that led to the development of these resources.[[21]](#endnote-22)

The other major factor that drove the development of coal mining in Queensland was the rehabilitation of the Japanese economy after the Second World War. As the Japanese economy grew, it needed black coal for heavy industry and it lacked domestic coal deposits. Due in part to geographical proximity, Japan had a keen interest in Australian coal and coking coal in particular. Japanese hunger for Australian coal drove expansion in Queensland. In particular widespread exploration of the Bowen Basin revealed the extent of the deposit, although much of it was too deep for the colliery and long wall mining methods that dominated in NSW. The development of mining in the Bowen Basin led to the widespread expansion of open-cut mining, first established by the US owned Utah Development Company, which created the Blackwater open cut in 1967. This sparked rapid expansion of open cut mining in Queensland, so much so that by 1991 “the open cuts on the northern Bowen Basin stretch[ed] for an aggregate of 40 kilometres along the outcrop, dotted with massive equipment as large as any in the world”.[[22]](#endnote-23) By 1990 Queensland had surpassed NSW as the highest coal-producing state, largely due to open cut mining.

## Coal and electricity supply

Outside of NSW and Queensland coal has been less central to state economies. While there are coal deposits in all Australian states, only in NSW and Queensland are they so great as to play such a significant role in export industries.However the fact of coal abundance has shaped domestic energy supply across the continent. And as a Gillard government report into energy supply noted, the energy sector plays an important role in Australia’s economy, accounting for around 5 percent of industry gross value added.[[23]](#endnote-24)

Australia has a unique history of coal-fired power stations being captive to local coal mines – that is coal power stations being attached to specific mines.[[24]](#endnote-25) In South Australia, for example, the Playford B and Northern coal-fired power stations in Port Augusta were linked to the Telford Cut brown coal mine in Leigh Creek. Both plants were decommissioned in 2016, coinciding with a ceasing of production at the Telford Cut.[[25]](#endnote-26) The Gillard government’s report into energy resources admitted that Australia is disproportionately dependent on coal for energy supply compared to the global energy market.[[26]](#endnote-27) Around three-quarters of Australia’s electricity supply comes from coal, compared to 38 percent of global electricity supply.[[27]](#endnote-28) The Gillard government attributed this to the “large, low-cost resources located near demand centres and close to the eastern seaboard”.[[28]](#endnote-29)

The development of brown coal power stations in Victoria serves as an instructive case in point for how the Australian energy supply has developed this reliance on coal. In the nineteenth century the Victorian colony was dependent on black coal imports for its power supply, mostly from NSW. However industrial action in NSW proved a regular disruption to coal supply, particularly in 1909, causing concern about the stability of Victoria’s energy supply. This was further compounded by the electrification of the Melbourne and Bendigo tram networks, creating a further reliance on electricity generation. The Victorian government therefore embarked on a mission to discover and develop its own local coal deposits. Initially black coal was mined at Wonthaggi, but these deposits were comparatively small and the town was soon marked by the industrial radicalism the government had hoped to bypass. In the face of this challenge, the Victorian government chose to focus its attention on the vast brown coal supplies in the La Trobe Valley.[[29]](#endnote-30)

This points to an important factor identified by Andreas Malm regarding the relationship between power supply and social power: that energy supply is at least partially a question of class rule.[[30]](#endnote-31) The development of Victorian brown coal electricity supply was designed to circumvent the disruption caused by the union activity of workers in the coal industry in NSW, and industrial unrest in Wonthaggi contributed to the decision to cease production there. Establishing coal in the La Trobe Valley was also in part intended by the government to circumvent this local industrial radicalism.[[31]](#endnote-32) The coal industry – both extraction and electricity generation – has long been a site of intensive class struggle due to its centrality to the operation of Australian capitalism. There are numerous other examples one could point to, such as the use of the army by the Chifley government to break the coal miners’ strike in 1949.[[32]](#endnote-33)

The utility of brown coal in the La Trobe Valley had two intimately related parts: one was to establish a local energy supply, and the second was a means of reaffirming capitalist class power. It should be noted that brown coal is of significantly lower grade than black coal; it does not burn hot enough for use in heavy industry, and it creates significantly higher emissions. It’s also less efficient: it can take up to four times as much brown coal to produce the same energy output as black coal.[[33]](#endnote-34) The brown coal in the La Trobe Valley also has a high water content, meaning equipment and techniques for dredging and briquettes had to be imported from Germany to make the coal usable for energy supply.[[34]](#endnote-35)

Yet the significant size of the deposit made the investment worthwhile, ensuring Victoria had a stable energy supply from locally-mined brown coal. In 1921 the first temporary brown coal-fired power station was established in the La Trobe Valley. It was replaced by the first permanent brown coal-fired power station at Yallourn in 1924. Yallourn B was established in 1927. By 1931 6.5 million tonnes of brown coal had been extracted at Yallourn for Victoria’s power supply. The success of the Yallourn power stations laid the basis for the establishment of further brown coal-fired power stations in the La Trobe Valley, which carries on to this day.[[35]](#endnote-36) It is estimated that the brown coal deposits in the La Trobe Valley could service current electricity needs for somewhere in the vicinity of 500 years.[[36]](#endnote-37)

The interdependence between coal mines and their captive power stations means that today more than half of Australia’s energy mix comes from coal, and three-quarters of Australian electricity supply. Around 20 percent of the total energy supply in Australia comes from brown coal.[[37]](#endnote-38) Not only does this mean the Australian landscape is dotted with dirty coal power plants, many of them operating for years beyond their original intended retirement date, but it has also had a significant impact on the infrastructure that has been developed to support the distribution of energy supply and electricity supply in particular.

Australia has five electricity systems, the largest and most significant of which is the National Energy Market (NEM), followed by the south-west and north-west interconnected systems (SWIS and NWIS). The NEM allows electricity to flow across the Australian Capital Territory, NSW, Victoria, Queensland, SA and Tasmania. This interconnected electricity grid is the world’s longest power system, stretching nearly 5,000 kilometres from Port Douglas in Queensland to Port Lincoln in SA. It also features the world’s largest direct current seabed cable, which runs from Loy Yang in Victoria to Bell Bay in Tasmania. In this complex electricity system, “Exchange between electricity producers and electricity consumers is facilitated through a pool where the output from all generators is aggregated and scheduled to meet demand through the use of information technology systems”.[[38]](#endnote-39)

NEM, SWIS and NWIS have all been developed largely around coal-fired power stations, with some later allowances being made for limited hydro and wind electricity supply. The electricity grid relies on specific coal-fired power stations as fuel sources, especially around major coal resources and to a lesser extent gas supply infrastructure on the eastern seaboard.[[39]](#endnote-40) It also relies on a steady 24-hour supply of energy to the grid from these specific fuel sources (i.e. coal-fired power stations), and it is principally designed to *deliver* power rather than to receive power inputs.[[40]](#endnote-41) This means that electricity supply is quite literally built around coal supply, and a significant expansion and redevelopment of Australia’s energy infrastructure would be required for any substantial shift away from coal energy supply in Australia, because some of the most plentiful areas for geothermal, solar and wind electricity supply are far from the existing nodes for electricity fuel supply located along the eastern seaboard.[[41]](#endnote-42)

This is compounded by other issues with renewable power supplies. While much has been made of the recent surge in household rooftop solar panels, the Australian energy grid is not designed to accept inputs from this source. The irregular flow of solar, which is generated in peaks and troughs, as well as the dispersed inputs from household rooftop solar, means that vast quantities of solar-generated electricity is simply wasted.[[42]](#endnote-43) The Gillard government argued that major impediments to shifting to renewables included “higher costs relative to other energy sources, their often remote location from markets and infrastructure, and the relative immaturity…of many renewable technologies”.[[43]](#endnote-44) For there to be a shift in energy generation towards renewable energy supply, it would require a massive investment in energy infrastructure that is inconceivable in the current political context. In any case the political impetus is not towards renewables: early in 2019 it was revealed that the rate of investment into large scale renewable projects has declined significantly since 2016.[[44]](#endnote-45)

## A most valuable export

The real value of coal, however lies not in power generation but rather in exports. As mentioned previously, Australia accounts for 9.2 percent of global black coal deposits. However it is the largest coal exporter with roughly a third of global exports. Around 75 percent of all black coal extracted here is exported. Most trade occurs in the Asia region, with Japan the main receiver (45 percent) followed by China (16 percent) and South Korea (15 percent).

Some academics have contended that the mineral export industry is less significant than it is popularly perceived. Pearse**,** for example, argues that there is a broad popular perception that greatly magnifies the size of mineral exports compared to their actual size as a proportion of all foreign trade. Further, he points out that the proportion of the working class employed in mining is quite small: by his calculations in 2009, a mere 1.3 percent.[[45]](#endnote-46) Counting dependent industries, mining is still only responsible for slightly less than 4 percent of workers employed in Australia.[[46]](#endnote-47) Pearse argues this misconception is the result of a concerted campaign by mining interests to inflate the importance of both coal and mining more broadly, so that the interests of mining companies are broadly perceived as being of utmost importance to the nation.[[47]](#endnote-48)

Certainly Pearse makes a valid point with this last claim. He presents compelling evidence that popular opinion perceives mining as being a much more significant proportion of exports than it is.[[48]](#endnote-49) However looking at these figures alone can be somewhat misleading. Australia is anomalous in its dependence on extractive industry exports; proportionally comparable only to Canada and Norway among developed nations, with more than 30 percent of merchandise exports coming from fuels and minerals**.**[[49]](#endnote-50) As others have noted, Australia’s reliance on extractive industry exports has more in common with underdeveloped nations than modern industrialised economies.[[50]](#endnote-51)

Coal exports are disproportionately important to export profits. In 2018-19 coal overtook iron ore as the most valuable commodity export, worth approximately $67 billion.[[51]](#endnote-52) Both metallurgical and thermal coals are exported but metallurgical coal is especially important because it is of a high grade and used in heavy industry, whereas thermal coal is principally used for electricity generation. While renewable energy sources are comparable to coal in their efficiency for energy generation, this is not true for heavy industry.[[52]](#endnote-53) There is no efficient substitute for the use of metallurgical coal in heavy industry, and it is therefore a crucial part of world imperialist dynamics: it is impossible to imagine the global arms industry without coal. This is particularly the case during a period of sharpening inter-imperialist rivalry such as we are currently living through. While prices for metallurgical coal have been more volatile over the last decade, exports continue to grow (see Graph 1).

**Graph 1: Metallurgical coal export volumes and values**

*Source:* Resources and Energy Quarterly, June 2019. https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2019/documents/Resources-and-Energy-Quarterly-June-2019-Met-Coal.pdf

Over the last 25 years Australia has experienced a fairly consistent boom in black coal exports. While domestic coal consumption has remained fairly steady, the export of black coal and particularly metallurgical coal has surged (see Graph 2). Black coal export volumes have more than doubled since the early 1990s, driving the rapid and massive expansion of coal extraction.[[53]](#endnote-54) The unpopular Adani Carmichael mega-mine in the Galilee Basin isbut one example of this. The mine is planned to contain six open cut pits and five underground mines, and will cover around 447 square kilometres.

**Graph 2: Australian Coal Production and Exports**

*Source:* Cunningham, Van Uffelen and Chambers 2019.

Adani expects the Carmichael mine will produce around 2.3 billion tonnes of coal over 60 years of production, an average of 40 million tonnes per year. This will make it easily the largest coal mine in Australia and one of the largest in the world.[[54]](#endnote-55) It will also be entirely export-oriented. There are a number of other mining licenses granted to further open up the Galilee Basin in the near future. In NSW coal production has also boomed: in the Newcastle and Hunter regions production grew by around 33 percent between 1999 and 2008.[[55]](#endnote-56) The never-ending thirst for ever greater access to coal reserves reflects the vast export wealth that lies below the surface: in a global economy reliant on coal for energy supply and in particular for heavy industry, there are enormous profits to be made from plundering what lies beneath the soil.

Coal is also linked to other highly profitable extractive industries, such as shale oil, shale gas and coal seam gas. It is worth diverging a moment to discuss the development of the coal seam gas (CSG) and shale gas extraction in Australia because it has expanded rapidly in recent years. CSG and shale gas are principally methane, caused by the decay of organic matter over millions of years. CSG is held within the coal seam by water pressure, while shale gas is held within sedimentary rocks at depths greater than 1,500 metres.[[56]](#endnote-57) All known CSG reserves are in NSW and Queensland, although large shale gas reserves exist in the Northern Territory, WA and SA. Shale gas can only be extracted by hydraulic fracturing (fracking), whereas CSG can be extracted by fracking or by drilling a vertical well down to the coal seam and pumping out water.[[57]](#endnote-58) This process, known as creating a CSG well, reduces pressure in the seam and allows the gas to be released. CSG is mostly extracted through wells in Australia, although it should be noted that this also carries with it substantial environmental impacts.[[58]](#endnote-59) Collectively, CSG and shale gas are often referred to as unconventional gas (along with another form of gas called tight gas).

In 2013 CSG accounted for approximately 23 percent of Australian gas reserves, and 78 percent of gas reserves in the eastern states (Queensland, NSW, Victoria, Tasmania and SA). It is projected to supply at least 30 percent of the domestic gas market by 2030.[[59]](#endnote-60) In recent years there has been a vast expansion of CSG wells, particularly in Queensland. In December 2018 official data suggested there were nearly six and a half thousand CSG wells in Queensland. Paul Cleary estimates that each well generates about one kilometre of roads, so projected well development could result in 40,000 kilometres of pipelines and access roads.[[60]](#endnote-61) He argues that current well production is potentially only a tenth of the likely number of wells to be drilled by mid-century, including three huge projects worth $70 billion. He claims the combined total of Queensland’s CSG projects is “arguably the biggest engineering feat since the Snowy Mountains Scheme”.[[61]](#endnote-62) Recent NSW statistics are harder to locate, but according to SBS in September 2011 nearly 500 CSG exploration and production wells had been drilled in NSW.[[62]](#endnote-63) In response to immense public pressure the NSW government put a stay on new CSG wells between 2012 and 2014; evidence suggests that since then the government has been cautious about approving new CSG projects, perhaps a reaction to the public backlash it experienced.[[63]](#endnote-64)

Shale gas is less well developed but the estimated size of deposits is remarkable: varying estimates suggest that at least 400 and 1000 trillion cubic feet of shale gas sits below the surface of the Australian landscape, much of it located in remote WA and the NT.[[64]](#endnote-65) Mining giants such as Santos are pressing to have access to these deposits.[[65]](#endnote-66)

While noting the domestic consumption of unconventional gas, the market is again driven by export potential. Australia has surged in the global gas trade. In 2017-18 Australian trade in liquefied natural gas (LNG) grew by 38.5 percent.[[66]](#endnote-67) As this decade opened it was announced that Australia had overtaken Qatar to become the world’s leading exporter of LNG.[[67]](#endnote-68) By value LNG was the third-ranked export in 2018-19, behind iron ore and metallurgical coal.[[68]](#endnote-69) It is important to note that this is not purely driven by the extraction of unconventional gas; conventional gas projects such as the Gorgon offshore project have also expanded substantially. Nonetheless the booming gas export industry has opened up potential for further profits through CSG and shale gas extraction, and has contributed to a sharp rise in domestic gas prices.

On the whole coal and its subsidiary products are a resource of vast importance to the Australian export economy. As noted earlier, in 2017 metallurgical coal was the second-largest product exported by volume; gas (including shale gas and CSG) was third, while thermal coal was in fourth place. Coal exports alone fetched $67 billion in 2018-19**,** without taking into account unconventional gas exports. This reflects Australia’s position as the world’s largest exporter of coal and LNG.

## For the greater common good?

In February 2017 Scott Morrison brought a lump of coal into parliament to praise the fossil fuel industry. While it was treated as a bizarre stunt by many, it nonetheless reflected a political reality in Australia. Both mining generally and coal specifically have substantial influence over the operation of the parties of government, both ALP and Liberal. Understanding the economic significance of coal is important to understanding its political weight.

Formally, the mining and energy industries in Australia are among the most tightly regulated in the world. Governments don’t merely rubber stamp projects but instead approval comes with extensive conditions attached, related to an array of environmental factors including toxic emissions, water discharge, dust and so on. Larger and riskier projects have considerably more conditions attached.[[69]](#endnote-70)

Yet the seriousness of these conditions could perhaps be gauged by the fact that mining companies seldom if ever object to them. In fact the US mining giant Peabody Coal describes Australia as “a premier location for coal mine development and investment”.[[70]](#endnote-71) Similarly in 2012 mining services firm Behre Dolbear gave Australia top ranking as best place to invest in a study of 25 mining nations. As Cleary notes, this is because Australia’s supposed best practice in mining regulation is underpinned by a lack of willingness and capacity to enforce its environmental conditions, at both state and federal levels, rendering them effectively meaningless.[[71]](#endnote-72)

There are two useful examples of this from Queensland. In 2013 the state government responded to mass community and farmer opposition to CSG, and established the GasFields Commission to manage the “coexistence” of CSG expansion with farmers, local communities and other stakeholders. In 2012-13 the government pledged $2.5 million for the agency but after taking into account running costs and staffing of one chairperson and six commissioners, this left precious little for on the ground monitoring. Moreover the first chairperson came to the role with a reputation for pro-CSG bias: John Cotter had been chair of the farm lobby, AgForce, and had been heavily criticised for failing to defend farmers against mining and CSG development. Early on, as chairperson Cotter signalled, he considered less rather than more regulation of CSG was needed: “If regulation there is impeding their [mining companies’] progress…then it needs to be looked at”.[[72]](#endnote-73) This is hardly indicative of a government wanting to be seen to take the regulation of CSG seriously.

The other example is the tragic re-emergence of black lung (pneumoconiosis) and silicosis in Queensland mines, diseases which had previously been eradicated. In February 2019 it was confirmed that over a hundred Queensland miners had been diagnosed with mine dust lung diseases.[[73]](#endnote-74) The official enquiry in 2017 detailed how government regulators had failed to adequately monitor coal dust levels; the health department had failed to consider black lung a serious concern, and mine operators either ignored the risks or tried to shift blame, as well as routinely exceeding maximum dust levels. Many workers were never screened for black lung, while thousands of others were never advised that their lung x-rays were of poor quality and could not be examined for the disease. Others had their x-rays examined by staff with inadequate training to identify early signs of the disease. The health surveillance unit responsible for monitoring miners for dust lung diseases employed only one part-time occupational physician who lacked the capacity to examine the overwhelming stockpile of records. The enquiry revealed that the bulk of these records were simply never examined and were left to degrade.[[74]](#endnote-75) This human tragedy inflicted on miners and their families is a glaring example of the meaninglessness of government regulations where there is no will to even assess compliance, let alone enforce them.

Nor is the lack of meaningful regulation confined to Queensland. Cleary’s *Mine-Field* details a regulatory “race to the bottom” where state governments competing with each other for lucrative mining contracts steadily eroded meaningful regulation. In NSW mines approved under the *Environmental Planning and Assessment Act 1979* are expressly exempted from complying with seventeen state laws including the *Native Vegetation Act*, the *Water Management Act* and the *Heritage Act*. State governments frequently offer big mining developments exemption from the usual regulations by giving them “state significance” status or by fast-tracking approval. Cleary also documents a vast array of ways that these regulations allow companies to circumvent or avoid regulation, such as by allowing them to self-report their environmental impact.[[75]](#endnote-76)

Even when regulations are enforced the penalties are weak at best. In March 2012 Whitehaven Coal was found to have seriously breached environmental protection licenses around water pollution at its Narrabri and Tarrawonga mines. It was fined $6,000. A few weeks later it was again found to have breached licenses for releasing waste water into the Goulburn River. For this breach Whitehaven was fined $105,000. This fine sounds more significant but as Cleary points out, it is about the cost of replacing a single tyre on the giant yellow mining trucks that are standard issue at coal mines.[[76]](#endnote-77) In this context regulation looks less like best practice and more like a toothless tiger.

Some have explained this toothless regulatory tiger as a product of the interference of coal companies in parliamentary politics. Cleary and others have done some remarkable research on the direct influence of mining and coal on the political process, particularly with regard to lobbying and the movement of personnel in the halls of power. It is undeniable that the mining industry has a well-oiled political machine that attempts to gain influence through a combination of political donations, lobbying and cultivating extensive political networks in the halls of power.

The building up of networks between mining and political parties is part of the daily reality of the operation of the Australian state. In NSW the undisclosed donations of former mining entrepreneur Nathan Tinkler is but one example: a highly ambitious businessperson who sought to buy political influence through large donations to the Liberal and National parties. In the wake of the ALP’s proposed mining super profits tax (commonly known as the mining tax) there was a substantial increase in mining money directed towards the Liberals and Nationals. Common as well is the cultivation of lobbying networks that means that the Minerals Council has been known to provide public advice on the personnel it thinks should make up cabinet, as was the case when it counselled Julia Gillard not to drop Martin Ferguson from the front bench. Mining bodies have direct access to political power brokers and will willingly apply pressure to meet the needs of the extractive industry.

There is also a revolving door between the mining industry and politics. Again, Cleary paints a damning picture that shows the movement of politicians at the end of their parliamentary careers on to the payroll of mining companies. Former Nationals leader and deputy prime minister John Anderson earned a reputation for being sympathetic to the interests of coal and CSG. After his sudden resignation from politics he took up a non-executive board member position with CSG company Eastern Star Gas. Another former Nationals leader, Mark Vaile, went over to Tinkler’s Aston Resources at the end of his career. Nor is the revolving door just reserved for the conservative side of politics: Julia Gillard’s one-time chief of staff Amanda Lampe had jumped into politics after working at Origin Energy. Former Queensland ALP deputy premier Keith de Lacey went over to MacArthur Coal after finishing his time in parliament, and former ALP National Secretary Gary Gray took on a position with Woodside as a lobbyist.[[77]](#endnote-78) Martin Ferguson famously went from the ALP front bench to the Minerals Council.[[78]](#endnote-79) The interconnectedness of personnel between mining and both sides of the parliamentary divide is indicative of how embedded mining is in the operation of government.

Cleary and others are right to criticise the influence of mining on the halls of power.[[79]](#endnote-80) Yet contrary to their arguments, it’s important to see that the mining industry does not merely exert influence because of its lobbying efforts or the development of political networks. Rather, the lobbying, networking and movement of personnel is *reflective* of the broader importance of coal and mining to the economic system. The industry is not important because of the lobbying but rather the lobbying has weight because of the importance of the industry. The fact that Australia has a highly profitable coal export industry means that conservative *and* Labor politicians are always keen to meet the needs of miners and go to lengths to ensure the Australian market is accessible and conducive to investment in coal and related industries.

It is impossible to imagine this situation any other way. The centrality of coal to Australian capitalism means that the capitalist state will always serve the needs of coal. The Australian state is not going to be persuaded to abandon a multi-billion dollar export industry, even under the weight of an increasing climate crisis. This is particularly the case because of the fact it is an industry linked to imperialism and therefore of central importance to global capitalism.

This in part explains why the state has been so repressive in its response to climate justice protests. In Queensland the ALP premier Annastacia Palaszczuk has rushed through laws that clamp down on protests and impose significant fines on non-violent protesters, with Liberal-National Party support. The supposedly progressive Labor premier of Victoria Daniel Andrews gave his seal of approval to the violent attacks on the Blockade IMARC protests.[[80]](#endnote-81) An Extinction Rebellion protest in Sydney made international news after police arrested over 30 protesters, imposed draconian bail conditions on them, and held two protesters in remand for more than 24 hours after they refused to sign the bail conditions.[[81]](#endnote-82) This is all happening as a direct response to an impressive wave of environmental activism across the country. While the context of a general increase in police repressiveness during the neoliberal era is partly to blame for this onslaught on the democratic right to protest, the response is an indication that challenges to extractive industries will not be tolerated.

This is further supported by a recent joint police and army counter-terrorism training exercise at the Loy Yang power station in the La Trobe Valley, which certainly indicates the Australian state is prepared and willing to defend coal interests in Australia.[[82]](#endnote-83)

## Labor and the unions

Before moving on to discuss the politics of climate justice campaigning in Australia, I want to discuss the politics of coal and the ALP. In the aftermath of the ALP’s shock defeat in the 2019 election, much was made of their significant losses in Queensland mining seats. In particular it has been argued that the ALP’s position on the Adani mine was a key factor in their defeat, and that the working class is supportive of the coal industry. Since the election Labor has swung to the right on a variety of policies including climate change.

This approach needs to be thoroughly rejected. There is ample evidence that the vast majority of people are not just opposed to the Adani coal mine, but in fact are deeply concerned about the impact of climate change. This is supported by numerous opinion polls.[[83]](#endnote-84) Furthermore it is fair to say that the poor and working class will be disproportionately impacted by climate change. For a start, they are not in a financial position to afford luxury bunkers to save them from the worst realities of climate change. As a whole, the poor and the working class have an interest in stopping the advance of climate change and the fossil fuel industries as a matter of priority, and the sectional interests of one group – those directly employed in coal and mining related industries – should not trump the interests of the working class as a whole.

It is worth also looking at the position of workers employed in coal and mining related industries. Less than 2 percent of the Australian working class are employed in mining, and less than half a percent are employed in coal.[[84]](#endnote-85) This is not going to sway the electoral fortunes of the ALP across Australia. In any case, the left must be clear that the interests of these workers (as separate from their political opinions) also lie with the dismantling of the coal industry. This of course relates to the question of climate change more broadly, but it is also a question of the living conditions of those who work in or live under the effects of the coal industry.

There is plenty of evidence to suggest that the coal industry cares precious little about the health and wellbeing of those who are impacted by the industry: the cases of black lung in Queensland; the response to the 2014 coal pit fires in Morwell in the La Trobe Valley that left local residents seven times more likely to have a heart attack;[[85]](#endnote-86) the disastrous “clean up” of fly ash after the decommissioning of the Playford B and Northern Power Stations in Port Augusta that left the town covered in potentially toxic ash for weeks and weeks.[[86]](#endnote-87) In reality mining companies give scant consideration for the wellbeing of workers and mining communities.

In the 2019 federal election the miners’ union in Queensland, the CFMMEU, declared it wouldn’t support candidates that didn’t “back” the coal mining industry. We must be clear that this reflects a political problem with the leadership of that union, which shamefully conflates the interests of the mining companies with those of the workers. In fact it is reflective of the political decline of what was once one of the most militant unions in Australia, after decades of class collaboration since the implementation of the Accord.

In any case, we must reject the idea that the ALP in any way opposes coal in Australia, or that electing them is a strategy. At the time of writing Anthony Albanese has repeatedly stated that he refuses to get party political over the bushfires. Perhaps the smoke cloud that descended on Sydney has clouded my judgement, but I can’t help but raise the question – if not now then when, Albanese? How many regional centres need to face the prospect of running out of water before the time comes? How many people need to die in out of control bushfires? How many thousands of people need to be huddled on a beach, with no supplies and in desperate need of evacuation, before that blessed time arrives?

The reality is the time will not arrive because there is no “party political” when it comes to coal. Just because Labor has the good sense not to bring a lump of shellacked coal into parliament does not mean it is any different to the Liberal party on this question. In late October, Albanese said that Labor must “embrace” “wealth creation” and “mining” on its way to a “clean energy future”. He specifically laboured the point that the coal industry would be key to this.[[87]](#endnote-88) This is nothing more than the ALP pretending to care about climate change while at the same time making it clear to the mining industry that it continues to support coal’s dominance in Australia – just as the ALP has always done, at state and federal levels.

## Campaigning dead ends

This points to the bankruptcy of strategies put forward by campaign groups that put their faith in trying to persuade the ALP to support them. For example in late 2017 Stop Adani Sydney ran a “Shakeup at Albo’s” event, where it declared that Albanese “supports action on climate change, and is a great advocate for renewables”. The purpose of the event was to “ask for his [Albanese’s] help in stopping the biggest coal mine in history”.[[88]](#endnote-89) Thiswas not an isolated event for Stop Adani Sydney. Similarly, the Australian Youth Climate Coalition (AYCC), one of the key organisations behind the student climate strikes, threw its efforts into campaigning for a “#ClimateElection” rather than mobilising for the popular international student strikes in the lead up to the election. While the AYCC did not campaign explicitly for the ALP, it nonetheless organised numerous events, including candidate forums that were clearly aimed at mobilising support for the ALP. During the campaign period the AYCC organised very few events that were *not* oriented towards the federal election.[[89]](#endnote-90)

In the context of the ALP’s consistent support for coal these actions ignore political reality and attempt to sow seeds of hope where there is nothing but a long history of betrayal. Albanese cannot be morally persuaded to support the Stop Adani campaign because the ALP is thoroughly committed to capitalism, and all that it entails. The ALP will support coal because it is good for the interests of Australian capitalism.

In a similar vein,this demonstrates the problems with the strategies associated with forms of lobbying or trying to pressure the ALP or other parties to change their policies. Many NGOs and small-l liberals do this. Take Paul Cleary as an example. Cleary has written two books on mining in Australia, the most recent of which, *Mine-field*, is a detailed and interesting exposé of recent developments in CSG and coal mining.[[90]](#endnote-91) Yet his other major contribution to the discussion around mining was a whole book, *Too Much Luck*, dedicated to campaigning for a sovereign wealth fund. Cleary’s argument is basically that mining companies should be taxed more and the wealth generated used to fund social services, infrastructure and so on. He provides a wealth of detailed information and data to support his argument.[[91]](#endnote-92)

While this demand is perfectly supportable, Cleary doesn’t seem to be aware that the reason governments don’t implement his suggestions is not because they don’t *understand* the impact of their taxation policies or environmental implications of mining. It is because a sovereign wealth fund does not align with their priorities. The priorities of government in Australia – conservative, Labor, state and federal – are to support what is the most conducive to ensuring mining investments. And what is most conducive to mining investment is ineffectual regulation, low taxation and generous subsidies and other economic support. No major party in Australia will be swayed by a compelling argument for an alternative, no matter how many pages are dedicated to explaining that strategy.

## The Greens

While the ALP is clearly wedded to the coal industry, a more leftish seeming strategy can be to look to the Greens as a parliamentary alternative. After all the Greens are a party that campaigned about environmental issues from their foundation and put a strong emphasis on policies around environmental issues and renewable technology. Recently the parliamentary Greens leadership has started discussing the prospect of having an environmental policy framed in the popular language of the “Green New Deal”. However the left should be aware of the political limitations of the Greens and both their capacity and willingness to implement the policies that are formally on their platform.

Others have noted elsewhere that the Greens have been on a long term rightward trajectory. There has been a move away from the protest politics that fed into their popularity in the late 1990s and early 2000s, and towards an increased professionalisation of the party.[[92]](#endnote-93) The party today is overwhelmingly committed to neoliberalism and market mechanisms to deal with climate change, notwithstanding its socially progressive policies around increasing public transport and a government-owned renewable energy retailer. As a party it labours under the liberal illusion that the fossil fuel industry can be eradicated by tweaks to energy policy and by restrictions on political donations and lobbying efforts, as though the state in Australia was not fundamentally wedded to the coal industry.[[93]](#endnote-94)

Even so one must view with scepticism the Greens’ commitment to its policies in practice. The experience of the Greens in government has been one of compromise and negotiation rather than meaningful action. Following the 2010 federal election the Greens were effectively in a coalition government with the ALP under prime minister Julia Gillard. During its time in office the Greens achieved very little by way of winding back the fossil fuel industry. The one act it can point to, and that it actively defends on its website, was that it negotiated to support the passage of the carbon tax through parliament.[[94]](#endnote-95) This was a regressive tax that pushed the cost of carbon emissions on to the consumer, with an increased cost of electricity for the average family of around 10 percent. The energy industry and large business typically passed on all or part of the cost of the tax to their customers, and the Treasury estimated that the carbon tax contributed to an increased cost of living and rise in the Consumer Price Index.[[95]](#endnote-96) Moreover the carbon tax contributed to the ideological normalisation of neoliberalism by green-washing the introduction of another consumer tax, rather than placing the burden of reducing carbon emissions squarely on the shoulders of the mining and energy industry. This is hardly a history that offers any inspiration to those who genuinely want to see the abolition of the coal industry.

## An Australian Green New Deal?

In the wake of developments in US politics there has been discussion recently of an “Australian Green New Deal”. The idea has entered the vernacular of the Greens and even sections of the Labor right such as Chris Bowen. Popularised by liberal Democrats in the US such as Alexandria Ocasio-Cortez, the Green New Deal calls for significant state intervention to reduce carbon emissions, with government investment in technology, infrastructure and public services to address the climate crisis. As well the Green New Deal addresses in part questions of social justice with an emphasis on green job creation and social policies to improve living standards for the poor, such as public housing programs.

While noting the Greens and ALP have both adopted the language of a Green New Deal, I am more concerned with the more left wing versions of the proposal. To this end I want to address Dino Varrasso’s recent *Jacobin* article about an Australian Green New Deal.[[96]](#endnote-97) Varrasso has outlined in detail what he considers an antipodean Green New Deal might look like, including:

* workers from mining and coal power stations being reskilled and retrained into green industries;
* nationalising the electrical grid and de-marketisation of coal-fired power supply;
* investment in renewables technology, expansion of public transport and the building of a high speed rail network;
* building energy efficient medium to high density public housing in cities, and
* investing in new forests.

He also addresses how governments could pay for this, such as by increasing taxation, cutting funding to private schools, abolishing subsidies for mining companies, and so on.

Varrasso describes his argument as “practical but utopian”, but in fact it is just utopian. This is most immediately obvious in the fact that he makes no meaningful strategic argument about how such a proposal would be achieved. He spends considerable time detailing potential government policies and how they could be paid for, but makes only a few brief comments at the end of the article about mass movements and an ambiguous statement about the need for a *socialist* Green New Deal. One can also reasonably infer that Varrasso supports a project of government reform, backed by mass movements and trade unions, as per his closing remarks. However he is studiously vague about the political forces that would lead this reform agenda, notwithstanding some critical remarks about the Greens and ALP and their commitment to neoliberalism. In that context, making brief and vague references to mass movements, trade unions and socialism at the end of a reasonably long article is not a strategy – it ends up providing a left cover for a governmental approach within the framework of capitalism.

Yet based on the analysis provided in this essay, we should be clear that this is a fundamentally mistaken approach. It is the equivalent of Saudi Arabia abandoning oil. There is a looming and unanswered question in Varrasso’s argument about how such a substantial project of political reform could be achieved, given that even the reasonably popular Rudd government could not implement even a relatively minor mining tax.

What the mining tax debacle demonstrated is that as long as society continues to be organised around the interests of capital, there will be a strong drive to utilise the vast coal wealth that lies beneath the Australian soil. While popular movements may be able to stop a single coal mine or a set of gas fields, to stop the fossil fuel industry as a whole would require a fundamental transformation of the entire political and economic system. Underlying Varrasso’s flippancy about this is the implication that such a transformation is *unnecessary*, and all it will take to “facilitate a rapid transition” to a fossil fuel free society is a government with the political will to nationalise the electricity grid and disincentivise coal-powered generators.[[97]](#endnote-98)

Indeed this is the most important and dangerous argument of all, one that is at the heart of all Green New Deal proposals. The case is that a new round of wealth-producing, poverty-alleviating and environmentally sustainable capitalist economic growth is possible, if only governments invested in and subsidised green technology. While this may be true in the abstract and provides good fodder for left-sounding reformist articles in *Jacobin,* it is not likely to be tested in the real capitalisms of Australia or the USA. Any abandonment of the fossil fuel industry in economies “blessed” with access to these natural resources will not come within the framework of capitalist social relations. In a world structured around profit and the accumulation of value, Saudi Arabia and the USA won’t give up oil, and Australia won’t give up coal. Achieving that will require more than merely electing left wing figures to positions of power, and more even than mass movements to put pressure on a capitalist government. It will require the total dismantling of capitalism.

## Conclusion

The purpose of this article has been to outline how coal is embedded in the economic and political structures of Australia. The fact that Australia has vast coal resources has shaped its history and present, both as a highly valuable export industry as well as the development and delivery of energy supply. This vital economic role has given coal vast influence over Australian politics, and the state in Australia has a long record of supporting the coal and mining industries in a variety of ways. In line with this both conservative and Labor governments, at state and federal level, do everything in their power to ensure that conditions are conducive and attractive to coal investment.

It follows that to challenge the coal industry in Australia will require fighting for a society that values people and the planet more than profit – a socialist society. The alternative to such a society is simply a world that continues to burn. This means that while socialists should support every movement that wishes to challenge the coal and broader fossil fuel industries, we need to build the forces of explicitly anti-capitalist and revolutionary organisations. This is the key task of those today who truly wish to end the coal industry, and all of the fossil fuel industries that are sending us hurtling towards environmental disaster.

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