

Submission  
to the  
NSW State Government  
**Department of Planning  
and Environment**  
concerning the proposed  
**Modification 1 to the**  

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**Springvale Mine  
Extension Project**  
**(SSD 5594 – MOD 1)**

by



22 August 2016

## About the author of this submission

The author of this submission, [REDACTED], is a born and raised Australian citizen, and currently residing in the Lithgow Local Government Area.

The author of this submission has not made any political financial donations ever.

He has a Bachelor Degree in Mechanical Engineering from the University of Sydney.

Most of his professional life has been directed towards developing and designing industrial equipment, including elevated work platforms, scissor hoists, goods hoists, conveyor systems, automated stacking and de-stacking systems, steel structures and (for a few years) underground coal mining equipment. A few earlier years were engaged in the ongoing quality assurance testing and failure analysis of specific military hardware equipment for an Australian defence contractor.

## Other relevant submissions

The author has also provided other submissions to other government agencies that contain information, including the outlook of future global coal supplies, relevant to this submission concerning the proposed modification to the Springvale Mine Extension Project consent SSD 5594, and these are as follows:

- Australian Parliament Senate Rural and Regional Affairs and Transport References Committee inquiry into “**Australia’s transport energy resilience and sustainability**”,  
[http://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Rural\\_and\\_Regional\\_Affairs\\_and\\_Transport/Transport\\_energy\\_resilience/Public\\_Hearings](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/Transport_energy_resilience/Public_Hearings)
  - **Submission 36**, 11 March 2015 (contained within 09 April 2015 Hearing Submissions zip file)
  - **09 April 2016 Public Hearing Programme** (click on program.pdf link) & **Testimony Transcript** (click on HTML & PDF link)
- NSW State Government Planning Assessment Commission **R032/15 Springvale Mine Extension Project Second Review**,  
<http://www.pac.nsw.gov.au/projects/2015/08/springvale-mine-extension-project-second-review>
  - **Submission by** [REDACTED], 1 September 2015 (contained within SubmissionsGpdf)
- NSW State Government Planning Assessment Commission **R033/15 Airly Mine Extension Project Review**, <http://www.pac.nsw.gov.au/projects/2015/08/airly-mine-extension>
  - **Submission by** [REDACTED], 23 September 2015 (contained within SubmissionsGpdf)
  - **Presentation 20 PowerPoint Slides** (in [REDACTED]) and **Script** (in [REDACTED]), 23 September 2015



## **Key “Take Home” Message**

### **Why does Springvale Mine require the proposed Modification 1 to SSD 5594?**

Please consider this possible and perhaps likely scenario:

**Step 1:** Springvale Mine gains approval for SSD 5594 – MOD1;

**Step 2:** Centennial Coal announces ‘mothballing’ of Airly Mine due to “economic factors” and transfers willing employees/contractors from Airly to Springvale Mine to reduce operating costs. The result is no net loss of employment in the Lithgow LGA, redundancies are avoided and Centennial Coal’s operating costs are likely reduced;

**Step 3:** Springvale Mine quickly ramps up production (to meet/exceed Airly and Springvale Mines’ previous combined output) preferably beyond 4.5 Mt/yr and succeeds in exhausting Springvale Mine’s remaining reserves by around year 2024;

**Step 4:** Angus Place Mine resumes production in late 2023, or earlier if (but very unlikely) economic factors improve sufficiently. Angus Place Mine applies to the relevant approval agencies for an extension to mine beyond its existing development consent/approvals (i.e. 21 August 2024); and

**Step 5:** The circumstances are set so that unless Angus Place Mine gains approval with minimal delay for an extension to mine beyond its existing development consent/approvals then Mount Piper Power Station risks the loss of a ready supply of suitable, affordable coal and is then likely to cease generating electricity for the National Electricity Market together with the loss of hundreds of jobs.

Similar to the situation that developed in 2015 surrounding the approval process for Springvale Mine Extension Project, is the stage being set for a serious game of energy supply brinkmanship with the NSW people in 2024? It would appear less likely if Step 1 in the scenario described above was not allowed to occur. **If Centennial Coal wishes to produce more coal there is still the option to resume production at nearby Angus Place Mine. What is preventing Centennial Coal from doing so?**

### **Will there be a likely future increase in demand for coal?**

**There are clear indications that the global coal industry is already in terminal decline.** Global peak coal production occurred in 2013, declining 0.7% in 2014, and declining a further 4.0% in 2015. US coal production has declined almost 20% since its all-time peak in 2008. China’s demand for coal peaked in 2013/14 and declined 1.5% in 2015. India has stated it intends to cease coal imports in the next few years.

**The Paris Climate Agreement, although flawed, locks in the end of coal.** Such a geopolitical agreement could not have been reached in the absence of the growing civil society and market signals that coal’s demise was already happening.

The NSW Government Department of Planning and Environment needs to be cognisant of emerging challenges and respond proactively.

**RETAIN SSD 5594 AS IT CURRENTLY IS – DON’T MESS WITH MT PIPER POWER STATION’S LONG-TERM ENERGY SUPPLY WITHOUT A VIABLE ALTERNATIVE.**

**REJECT THE PROPOSED MOD 1**



## **Background**

Springvale Mine is an established underground longwall coal mine located in the Western Coalfield of New South Wales (NSW), approximately 15 kilometres (km) northwest of Lithgow and 120 km west-northwest of Sydney. Springvale pit top is accessed via the Castlereagh Highway and is located 3 km east of the township of Wallerawang.

Springvale Mine is owned by Centennial Springvale Pty Limited (as to 50%) and Springvale SK Kores Pty Limited (as to 50%) as participants in the Springvale unincorporated joint venture. Springvale Coal Pty Limited (Springvale Coal) is the operator of Springvale Mine on behalf of the joint venture.

Underground coal mining commenced at Springvale Mine in 1995 following the granting of the development consent DA 11/92 on July 1992 (pursuant to Section 101 under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act)). The consent DA 11/92 expired on 30 September 2015.

Springvale Mine currently operates under State Significant Development consent **SSD 5594**. This consent was granted to the mine, for the Springvale Mine Extension Project, on 21 September 2015 by the Planning Assessment Commission of NSW under Section 89E of the EP&A Act. The consent SSD 5594 allows Springvale Mine to carry out mining operations until 31 December 2028.

Springvale Mine's State consent and Federal approval allow extraction of coal from 20 longwalls (LW416 – LW432, LW501 – LW503), at the extraction rate of 4.5 million tonnes per annum (Mt/yr), and the continued operation of the mine's surface infrastructure sites at the pit top and on Newnes Plateau. Springvale is also approved to employ up to 310 full time personnel and carry out operations 24 hours per day, seven days per week.

Sized ROM coal will continue to be transferred to the Springvale Coal Services Site (Western Coal Services Project's consent SSD 5579) via the overland conveyor system, except for the 50,000 tonnes per annum that is approved to be transported to local domestic market customers by road haulage.

Springvale Mine is currently the sole supplier of thermal coal to Mount Piper Power Station<sup>i</sup>, fed via overland conveyor system. Mount Piper Power Station was commissioned in 1992-3, currently consists of 2 generator units x 700 MW each gross rated generating capacity<sup>ii</sup>, and currently are NSW's youngest coal-fired generators, representing nearly 14 per cent of NSW's coal-fired generating capacity.

Nearby Angus Place Mine (also part of the Centennial Coal group) had been a major supplier over the years to the nearby Mount Piper and Wallerawang Power Stations. Centennial Coal announced in October 2014 that it would 'mothball' Angus Place Mine and it planned to reopen it in 2023, when Springvale reserves are exhausted, or earlier if market conditions improve<sup>iii</sup>. EnergyAustralia announced in January 2015 that Wallerawang Power Station would be demolished<sup>iv</sup>. Angus Place Mine was placed on 'care and maintenance' status on 28 March 2015<sup>v</sup>. Angus Place Mine's current development consent lapses on 18 August 2024<sup>vi</sup>.

Airly Mine (also part of the Centennial coal group) was placed on 'care and maintenance' in late 2012 and reopened in February 2014<sup>vii</sup>. Airly Mine Extension Project's current development consent for production lapses on 12 October 2035.

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**Proposed Modifications (MOD 1) Basic Summary**

Key Feature	SSD 5594 as it is currently	SSD 5594 with proposed MOD1	Comment/Note
State consent to produce expires on	31 December 2028 Rehab. thereafter	31 December 2028 Rehab. thereafter	No change
Mining Area, Retreat LW mining	LW416 – LW432, LW501 – LW503	LW416 – LW432, LW501 – LW503	No change
Hours of Operation	24 hours x 7 days	24 hours x 7 days	No change
Max. Employment (Full-time equiv.)	310	450	<b>+45%</b> incl. contractors
Max. Production (Mt/yr)	4.5	5.5	<b>+22%</b>
Max. ROM stockpile (kt)	85	200	<b>+135%,</b> +0.3ha footprint
GHG emissions (Mt CO <sub>2e</sub> /yr)	10.98	13.42	<b>+22%</b>
Max. domestic road haulage (kt/yr)	50	50	No change, incl. waste disposal
Water Management and Pollution Control	<ul style="list-style-type: none"> <li>Underground water management system for both clean and dirty water as follows: <ul style="list-style-type: none"> <li>Clean water from goaf areas runs under gravity to collection points for the dewatering bores, for transfer to the surface into the SDWTS using submersible pumps.</li> <li>Dirty water from roadways is collected into portable staging tanks and pumped into existing workings for the sediment to settle out before being diverted to the clean water system (as above) for transfer to the SDWTS.</li> </ul> </li> <li>Surface water storages exists for both dirty water and clean water at the pit top and Newnes Plateau Infrastructure areas, and includes: <ul style="list-style-type: none"> <li>Fire Dam (8 ML)</li> <li>Primary Pond (7 ML)</li> <li>2ndary Pond (7 ML)</li> <li>Duck Pond (2 ML)</li> <li>Oil/Water Separator</li> </ul> </li> </ul>	Additional works proposed: <ul style="list-style-type: none"> <li>Construct dirty water diversion drain around the northern section of the coal stockpile extension area to divert water to the existing dirty water catchment at the pit top. Designed for 100 year ARI.</li> <li>Minimal change to the existing dirty water and clean water management at the pit top.</li> <li>No change to other water management and pollution control infrastructure.</li> </ul>	Change to ROM coal stockpile extension drainage

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	<ul style="list-style-type: none"><li>○ Emergency Holding Dam (3.6 ML)</li><li>• Eight Licensed Discharge Points on Springvale Mine's EPL 3607, LDP001, LDP002, LDP004 – LDP007, LDP009, LDP010</li></ul>		
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**Proposed MOD1's stated justification: – More economically viable and improved response to market opportunities**

In the Statement of Environmental Effects – Volume 1: Main Report it states:

Whilst the increase in production limit is initially to make up shortfall in revenue due to the mine not being operational for eight weeks in 2015, when the Springvale Mine Extension Project was being assessed, **the proposed increase in production makes the mine more economically viable. The production increase will also improve the operational flexibility of Springvale Coal to respond to market opportunities that may present themselves.** This flexibility has potentially positive implications for the State, as the ability to increase production in favourable markets would result in increased royalty returns in particular to NSW.

**Question: Will there be a likely future increase in demand for coal?**

**There are clear indications that the global coal industry is already in terminal decline.**

McKinsey & Company's November 2015 report *Downsizing the US coal industry: Can a slow-motion train wreck be avoided?*<sup>viii</sup> states:

The US coal industry faces not just overcapacity but crippling liabilities that will outlive mine closures. Setting the industry on a viable course will require all stakeholders to step up with new ideas.

The United States has plenty of coal, but the world does not need it. By 2020, the convergence of lowcost shale-gas supply, environmental regulation, and waning international demand is likely to push demand for US coal to at least 20 percent below what US mines currently produce—which is already almost 20 percent below 2008 levels.

The crisis the coal industry faces comprises a number of interlinked parts: overcapacity and continuing demand shrinkage, chronic indebtedness and environmental liabilities, and insufficient profitability, which together limit its freedom of maneuver. Even if industry capacity is cut enough to balance supply and demand in 2020, coal producers would still be unable to service most of their approximately \$70 billion of remaining debt and liabilities, McKinsey's Basic Materials Institute has found.

According to the Institute for Energy Economics and Financial Analysis (IEEFA), the world passed peak coal in 2013/14<sup>ix</sup>. And this isn't a gentle curve. IEEFA projects a 25% drop in global demand for thermal coal by the end of the decade – a crash of a quarter in the next four years!

China is shifting rapidly to efficiency and renewables, driven largely by air pollution concerns, but also by climate change and global economic drivers. China's coal use peaked in 2013/14 and has been declining year-on-year since. China's reported coal reserves-to-production (R/P) of 31 years<sup>x</sup>, and this figure may be optimistic, indicates a necessity to transition to alternative energy sources also for energy security reasons.



The Indian government's goal, announced in January 2015, to cease all coal imports in three years is well on its way to being achieved, with a 15% drop in 2015/16 alone.

**The Paris Climate Agreement, although flawed, locks in the end of coal**, with its promise to reach zero net emissions in the second half of this century impossible to achieve without closing the coal sector. Such a geopolitical agreement could not have been reached in the absence of the growing civil society and market signals that coal's demise was already happening.

Coal phase-outs across entire jurisdictions are not, as caricatured by coal proponents, the unrealistic imaginings of environmentalists which would lead to economic Armageddon. They have been completed, and are underway, in places comparable to Australia. Ontario in Canada completed a full phase-out of coal power in 2014<sup>xii</sup>. New York State in the USA plans to phase out all coal power plants by 2020<sup>xiii</sup>, and the UK by 2025<sup>xiii</sup>.

The clear lesson from climate science is that all coal plants should be closed as swiftly as is technically achievable through a planned energy transition programme. The decline that has already started will have to be accelerated urgently as governments manage the exit.

### **Is Centennial Coal's Airly Mine likely to be 'mothballed' in future?**

Airly Mine has a maximum permissible production capacity of 1.8 million tonnes per annum, yet it was reported to produce only 0.5 million tonnes in year 2011.

In late 2012 Airly was placed on 'care and maintenance' and then reopened in February 2014. Clearly, Airly has been 'mothballed' before, so it could be again.

In 2015 Airly Mine was successful in gaining development consent/approvals to continue coal production until 2035. Airly Mine is currently operating at significantly below half its maximum permitted production capacity, and uses the more costly 'bord and pillar' extractive techniques.

If Springvale Mine is successful at gaining approval to the proposed SSD 5594 – MOD 1 then it is quite feasible, considering the coal demand outlook, that Centennial Coal could rationalise its operations by 'mothballing' Airly Mine in the near future and transfer Airly's employees/contractors to Springvale Mine and increase Springvale Mine's production output accordingly. If that were to occur there would likely be:

- **No net gain in Centennial Coal employment in the Lithgow LGA**, contrary to the inferred claims in the modification proposal SSD 5594 – MOD 1;
- **No net change in coal output from Centennial Coal mines in the Lithgow LGA, meaning no net gain to state royalties**, contrary to the inferred claims in the modification proposal SSD 5594 – MOD 1;
- Reduced overall operating costs for Centennial Coal, why MOD 1 is most likely really being proposed for; and
- **Springvale Mine's reserves exhausted sooner**, probably by around year 2024, which would be at the same time that Centennial Coal's Angus Place Mine would be likely to seek an extension to its development consent.

Approval of the proposed SSD 5594 – MOD1 provides a way to a likely 'mothballing' of Airly Mine soon, and risking Mount Piper Power Station's long-term energy supply.

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## References

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- <sup>i</sup> <http://www.abc.net.au/news/2016-02-14/concerns-over-springvale-mine-expansion-swamps-near-lithgow/7165106>
- <sup>ii</sup> <https://www.energyaustralia.com.au/about-us/what-we-do/generation-assets/wallerawang-mtpiper-power-station/mtpiper>
- <sup>iii</sup> <http://www.lithgowmercury.com.au/story/2656092/closure-of-angus-place-means-devastating-job-losses/>
- <sup>iv</sup> <http://www.lithgowmercury.com.au/story/2802787/wallerawang-power-station-to-be-demolished/>
- <sup>v</sup> <http://www.centennialcoal.com.au/Operations/OperationsList/Angus-Place.aspx>
- <sup>vi</sup> [http://centennialcoal.com.au/~media/Files/Angus%20Place%20Documents/Development%20and%20Environment%20Approvals/Angus%20Place%20Project%20Approval%20PA06\\_0021.ashx](http://centennialcoal.com.au/~media/Files/Angus%20Place%20Documents/Development%20and%20Environment%20Approvals/Angus%20Place%20Project%20Approval%20PA06_0021.ashx)
- <sup>vii</sup> <http://www.centennialcoal.com.au/Operations/OperationsList/Airly.aspx>
- <sup>viii</sup> <http://www.mckinsey.com/industries/metals-and-mining/our-insights/downsizing-the-us-coal-industry>
- <sup>ix</sup> <http://ieefa.org/past-peak-coal-in-china/>
- <sup>x</sup> <https://www.bp.com/content/dam/bp/pdf/energy-economics/statistical-review-2016/bp-statistical-review-of-world-energy-2016-full-report.pdf>
- <sup>xi</sup> <http://www.energy.gov.on.ca/en/ontarios-electricity-system/clean-energy-in-ontario/>
- <sup>xii</sup> <http://www.bloomberg.com/news/articles/2016-01-15/new-york-is-the-latest-state-to-join-worldwide-war-against-coal>
- <sup>xiii</sup> <https://www.gov.uk/government/news/new-direction-for-uk-energy-policy>

