

Chain Valley Colliery Consolidation & Extension

Reasons for Objection – John Shiel PhD(Eng)

- We **cannot burn more coal** to meet our 2015 Paris COP21 commitment of keeping temperatures below 2°C
 - Temperatures are increasing alarmingly (Hansen, 2026), risking tumbling beyond “**hothouse Earth**” tipping points (Steffen et al., 2018)
 - **Extreme events** are getting more frequent, longer duration and more intense . This is because there is more energy in the atmosphere & each degree of extra heat means air can contain 7% more water vapour (NASA, 2013).
- **Mining industry employment**
 - If all the unemployed (4.1%), and everyone in the mining (2%) and coal-fired electricity industries (0.07%) were employed in the renewable industry, there would still not be enough workers for Million Job plan (ABS, 2026; BZE et al., 2020; Jobs & Skills Australia, 2024; NZEA, 2025).
- Vales Point Power Station (**VPPPS**) and the mines are **no longer needed** for the NEM’s energy security
 - This is because the total solar power that is installed and generated every year since 2024 provides
 - More power than the VPPS reliable supply
 - More power than that needed for the next 5 years in the NEM
- **VPPS is one of Australia’s worst polluting stations**
 - It has no modern air filter on Chimneys causing many health issues (Ewald, 2018) due to:
 - fine particulate PM_{2.5} cancerous emissions
 - Nitrogen Oxides and Sulphur Dioxide emissions
 - It has generated much fly ash since 2015 for Sunset Power International and 7GI, and it needs full remediation in a few years.
- The owner of VPPS and Delta Coal (7GI) has a **poor environmental record globally**
 - In *Australia* it has been found guilty of the environmental offence of fish kills in the NSW Land and Environment Court
 - In the *US* there are legal actions (citizen suit notice and a major civil lawsuit) involving its Blackhawk mines that show a pattern of legal and community conflict around its coal operations (Six, 2022)
 - In *Czech Republic* a complaint has been lodged with European Commission re breaches of the Industrial Emissions Directive
- **Limits to Operation - requires more stringent condition**
 - Is the mine extension really needed? VPPS has no need to operate past 2028 since solar alone replaces its generation.
 - How can the community be confident that 7GI will remediate all the VPPS waste fly ash generated since 2016? This did not feature in the State Government recommendations
 - Why should more mine voids be created under the Lake to eventually cause a larger settlement area of the bottom of the lake?
 - Fugitive methane needs independent monitoring, and the 20 year Global Warming Potential (GWP) which is close to 86 times CO₂ needs to be used for methane emissions because we don’t have 100 years to keep temperatures below 2°C.

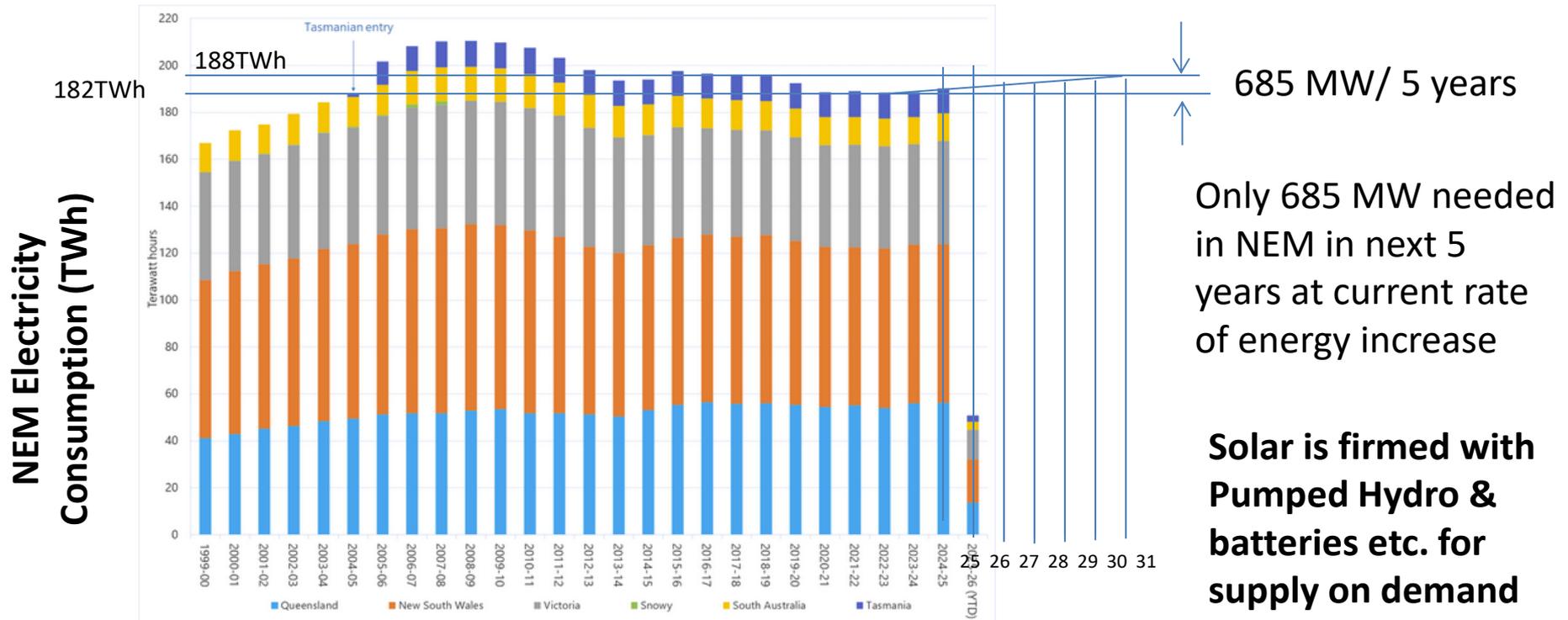
Other points

- Continued mining under Lake Macquarie
 - Risking a larger settlement area
 - Water table disturbance
 - Fishing
- Ash dam
 - Fly ash is at risk of earthquake - Myuna Dam Recreation Area was closed immediately upon the release of the Fly Ash Risk Report (Wakatama & Farquhar, 2019).
- EPA ignored WHO PM_{2.5} guidelines of 5 µg/m³ (there is no safe level of PM_{2.5} particulates)
 - VPPS one of few power stations in the world given an EPA licence exemption to pollute (PM_{2.5}, Nitrates, Sulphates etc.) at the expense of the health of the locals (asthma, cancers) (Ewald, 2018)
- Scope 3 CO_{2-e} emissions of 23Mt CO_{2-e} are related to the coal burnt at VPPS.
 - The scope 3 emissions of the coal for other domestic sites (an extra 180,000 tpa x 2 years) and for export (an extra 660,000 tpa x 2 years) seem missing, including their transport emissions.
- Mannering Creek non-compliant for water quality

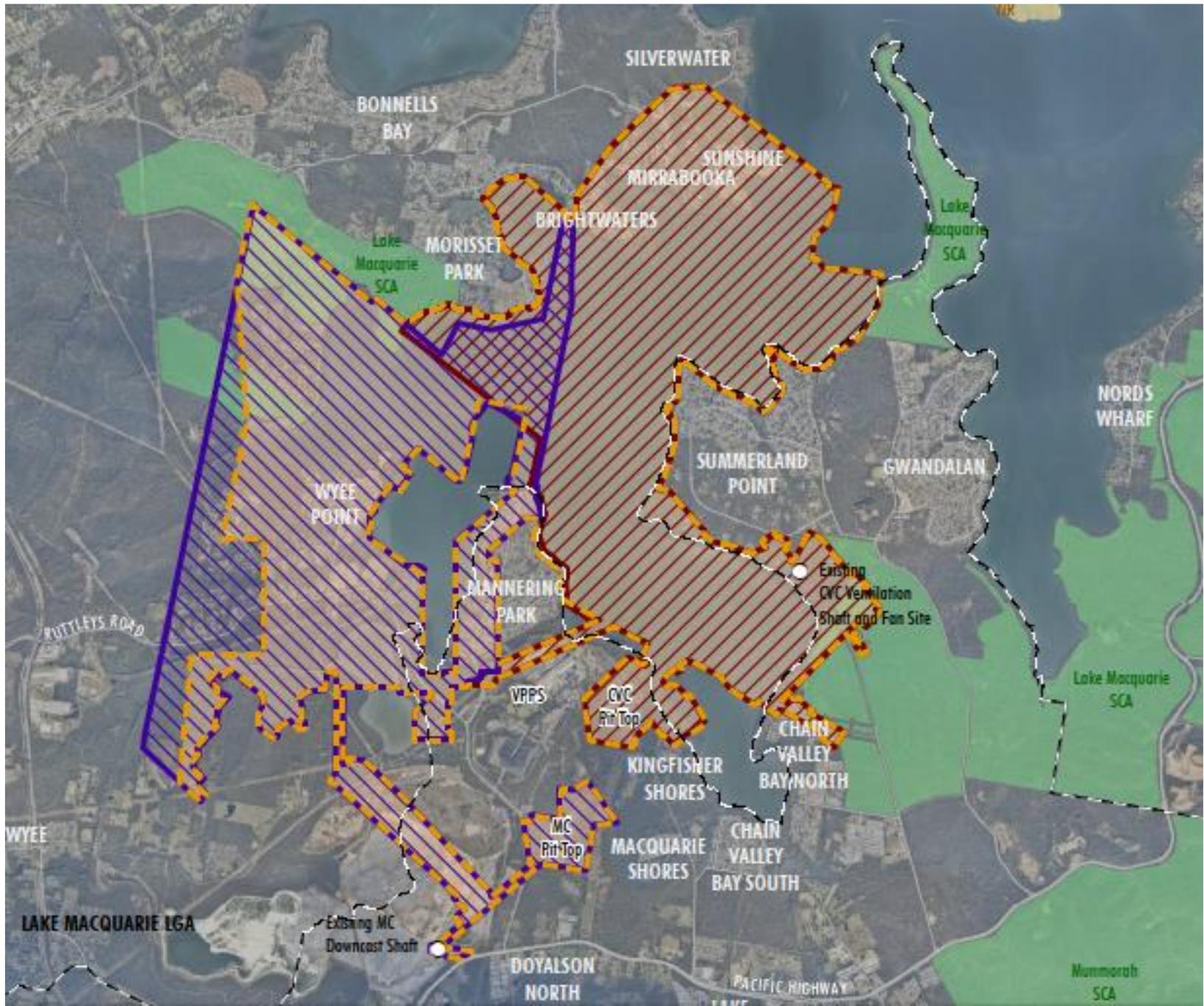
Vales Point Power Station, Not required due to one year of Solar Installations

Vales Point supplies
2x 660MW at 50%
Capacity factor
= **660MW**

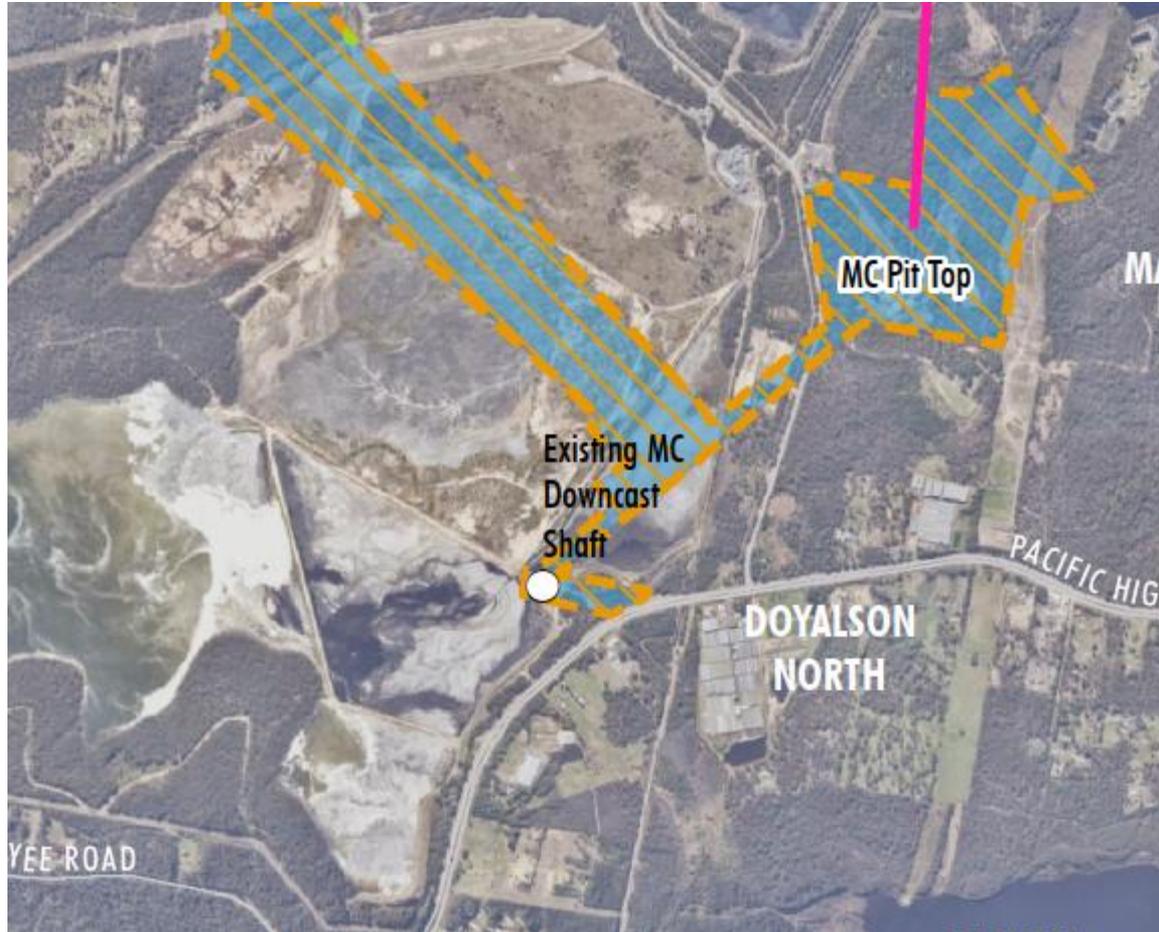
In 2024 calendar year, Rooftop Solar installed 3.2GW &
Large Scale solar installed 1.2GW (CEC, 2025 p.69)
 $3.2 + 1.2 \text{ GW} = 4.4 \times 1000 \text{ MW}$
 $= 4,400 \text{ MW}$ with 16.7% capacity factor (4 hours per day)
 $= \mathbf{733 \text{ MW}}$ supplied by solar



Financial Year Source: based on (AER, 2026)



Proximity of Mining to Ash Dam



WHO PM_{2.5} guideline values

<https://www.who.int/publications/i/item/9789240034228/>

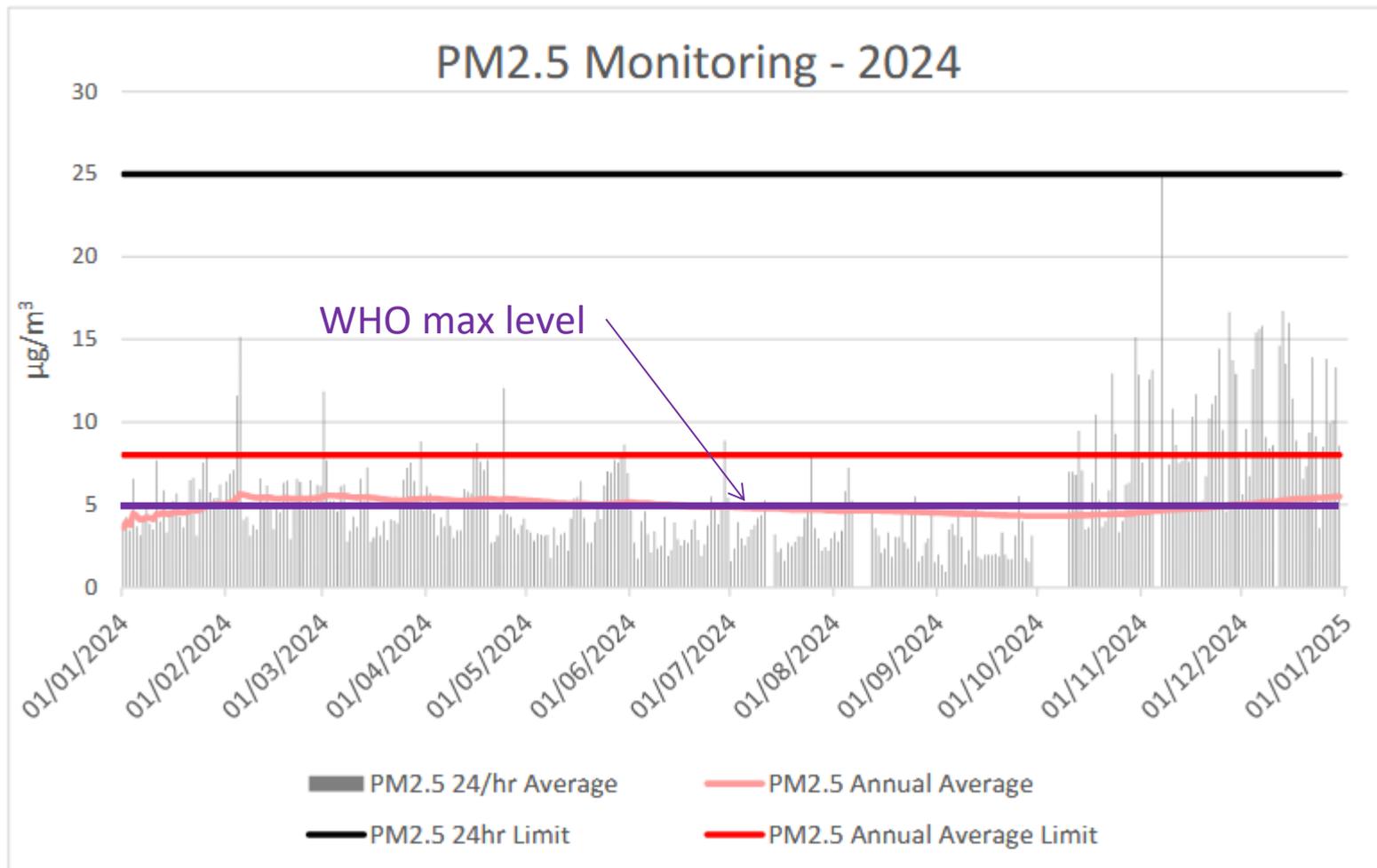
Metric	WHO 2021 Guideline Value	Notes
Annual mean	5 µg/m ³	Long-term exposure threshold; significantly lower than the 2005 guideline (10 µg/m ³).
24-hour mean	15 µg/m ³	Short-term exposure threshold; meant to reduce acute health impacts.

These values are **health-based**, meaning they reflect concentrations at which measurable health risks begin to appear. WHO emphasises that **no safe threshold** has been identified—harm occurs even below these levels.

https://assets.publishing.service.gov.uk/media/623075a3d3bf7f5a89aecec3/CO_MEAP_WHO_AQG_-_Defra_PM2.5_targets_advice__2_.pdf

Mannering Colliery

Figure 14: PM_{2.5} Particulate at Wye Air Quality Monitoring Station



7GI Group Profile June 2025

https://www.7gi.com/files/7GI_Group_Profile_06_2025.pdf

- Chain Valley Colliery
 - The Chain Valley Colliery coal mine supplies coal exclusively to the neighbouring Vales Point Power Station.
 - The Chain Valley mine provides c. 50% of fuel to Vales Point power plant, which makes the whole complex a very efficient operator.
 - The Chain Valley Colliery underground mining complex has an output of 1.1-1.2 million tons of high quality coal a year.

Refs

- ABS. (2026, February 19).** Labour Force, Australia. Australian Bureau of Statistics. www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia/latest-release
- AER. (2026, February 16).** *Historical Annual electricity consumption—NEM.* <https://www.aer.gov.au/industry/registers/charts/annual-electricity-consumption-nem>
- BZE, Lenko, E., Lee, H., Lord, M., Edmonds, H., & Hes, D. (2020).** *The Million Jobs Plan: Powering jobs, wages and economic growth.* Beyond Zero Emissions Inc. <https://www.bze.org.au/research/report/million-jobs-plan>
- CEC. (2025).** *Clean Energy Australia 2025.* Clean Energy Council. <https://cleanenergycouncil.org.au/news-resources/clean-energy-australia-report-2025>
- Ewald, B. (2018).** *The health burden of fine particle pollution from electricity generation in NSW.* Environmental Justice Australia. [www.envirojustice.org.au/wp-content/uploads/2018/11/Ewald B 2018 The health burden of fine particle pollution from electricity generation in NSW.pdf](http://www.envirojustice.org.au/wp-content/uploads/2018/11/Ewald_B_2018_The_health_burden_of_fine_particle_pollution_from_electricity_generation_in_NSW.pdf)
- Jobs & Skills Australia. (2024).** *Mining workforce.* Australian Government. <https://www.jobsandskills.gov.au/data/occupation-and-industry-profiles/industries/mining>
- NASA. (2013).** In a Warming World, the Storms May Be Fewer But Stronger. Storms are Getting Stronger. [accessed 2021 Jul 16] www.earthobservatory.nasa.gov/features/ClimateStorms/page2.php
- NZEA. (2025).** *Australia's energy transition – what happens to power stations?* Net Zero Economy Authority, Australian Government. <https://www.netzero.gov.au/australias-energy-transition-what-happens-power-stations>
- Hansen, J. (2026, February 6).** *Another El Nino Already? What Can We Learn from It?* <https://substack.com/home/post/p-187095366>
- Six, T. (2022, August 23).** *Coal companies accused of negligence in Eastern KY flooding | Lexington Herald Leader.* Lexington Herald Leader. <https://www.kentucky.com/news/state/kentucky/article264791584.html>
- Steffen, W., Rockström, J., Richardson, K., Lenton, T. M., Folke, C., Liverman, D., Summerhayes, C. P., Barnosky, A. D., Cornell, S. E., Crucifix, M., Donges, J. F., Fetzer, I., Lade, S. J., Scheffer, M., Winkelmann, R., & Schellnhuber, H. J. (2018).** Trajectories of the Earth System in the Anthropocene. *Proceedings of the National Academy of Sciences*, 115(33), 8252–8259. <https://doi.org/10.1073/pnas.1810141115>
- Superpower Institute. (2026, February 21).** *Open Electricity.* Superpower Institute. <https://openelectricity.org.au/>
- Wakatama, G., & Farquhar, L. (2019, April 1).** Earthquake risk fears prompt sudden closure of popular sport and camping ground. *ABC News.* <https://www.abc.net.au/news/2019-04-02/anger-over-myuna-bay-sport-rec-centre-closure/10958254>