Marulan Gas-Fired Power Station Summary

The Marulan Gas-Fired Power Station was originally approved in 2009 but construction never began, and the approvals have since been extended twice. EnergyAustralia has now lodged a Modification Report, on public exhibition till the 12th of November, which would substantially change the scale and nature of the approved project. Roughly 80% increase in generating capacity, more than double the disturbance footprint, diesel as a backup fuel, a gas storage pipeline and a 400 person workers camp.

This summary is based on EnergyAustralia's Modification Report, it's scoping reports, the 2026 EPBC referral, older approved material and planning documents for other nearby projects. Our concern is not one issue in isolation. It's the cumulative effect of a much larger industrial project being introduced into a small rural area already facing multiple major energy, quarry and infrastructure proposals. We do not believe the modification pathway remains appropriate.

We, local residents, do not think our roads, water, emergency access and ecosystems can absorb the combined impacts, and don't believe residents are being protected from what is to come.

What has changed?

- Generation capacity has increased from 800MW (with a combined cycle option) to 1.43 GW (up to four open-cycle gas turbines). To put this scale in perspective, the largest gas-fired power station currently operating in Australia is 800MW. The project area has also doubled from 130 to 255ha and the disturbance area has doubled from 51 to 118ha.
- EnergyAustralia is seeking approval to use diesel as a backup fuel, firing for an assumed 120 hours per year but no limit on runtime is mentioned for either fuel. 13 megalitres of diesel storage is proposed onsite, In the Sydney drinking water catchment.
- Operational water demand has increased from 14 to 130 megalitres a year (roughly nine times as much). EnergyAustralia has still not confirmed a water source. Its preferred options, are stormwater harvested on site, extraction from the Wollondilly River (Sydney drinking water catchment), and recycled water trucked from sewage treatment plants (residents are concerned about how temporary or not this would be).
- Newly proposed infrastructure including a temporary accommodation facility for 400 workers, gas compression station and gas storage pipeline of about 20km (laid as three parallel pipes).
- The ecological and social context has changed significantly since 2009. The 2026 EPBC referral identifies nationally protected threatened species and a critically endangered ecological community within the project area. Marulan and the surrounding rural residential area have also grown substantially, with new homes and many young families moving to the area.

Taken together, we believe these changes warrant serious consideration of whether the modification remains appropriate for a project of this scale. In our view, at minimum, the current proposal should require a new application with a full environmental impact statement and be assessed against contemporary environmental, health, traffic, water, emergency-management and social standards rather than relying on historical approvals for the 2009 project.

Major concerns

Cumulative industrialisation:

Multiple large-scale energy and extractive industry projects are proposed or operating in the broader Marulan-Brayton-Canyonleigh area. Origin Energy is also proposing the Kerrawary Power Station near Big Hill, with capacity of up to 1,200 MW and a gas pipeline of up to 35 km, plus 200hrs of diesel firing. Residents experience the combined effects of these projects even when individual planning assessments consider them separately.

Kerrawary Power Station and nearby Carrick Quarry are not mentioned in the Modification Report despite likely sharing the same proposed access routes.

Key cumulative concerns include habitat fragmentation, road congestion and safety, construction noise, lighting, visual impacts, emergency-response capacity, water use and the progressive industrialisation of a rural residential landscape.

Traffic:

The traffic impact assessment from the nearby X-Elio Canyonleigh BESS stated that if construction periods coincided, Canyonleigh Road could have up to 1200 vehicle movements per day compared with about 19 per day now. That scenario included:

-Canyonleigh BESS 174/day

-Wattle Creek Solar 300/day

-Wattle Creek BESS 232/day

-Marulan GFPS 480/day.

EnergyAustralia's Modification Report estimates a lower figure of 250/day for the construction period of their project, however even on that figure, the combined load could be 950 vehicle movements per day. About 50 times the current traffic. That cumulative scenario does not include every potential future project in the district, including Origin's Kerrawary proposal or the existing Gunlake Quarry traffic on Brayton Road, which is approved for up to 750 vehicle movements a day under its 2023 Continuation Project approval.

Once EnergyAustralia's construction period is complete the Modification Report estimates about 51 heavy vehicles a day for water and diesel, spread around the clock, at about three per hour, for water and diesel deliveries once the plant is operating.

The X-Elio traffic assessment also noted constraints on Canyonleigh Road, including sections where the effective road width may not allow two heavy vehicles to pass. It noted that the likelihood of construction overlap was low and could be coordinated between the relevant parties and council. No specific parties were named, no mechanism was described, and no commitment was made. "The likelihood of this occurring is low" is an assertion with no supporting analysis.

EnergyAustralia's Modification Report makes the same claim. It says neighbouring projects' construction is "not anticipated to overlap" but gives no start date for the Wattle Creek projects and proposes to coordinate "where feasible". It adds no cumulative specific measures.

Air quality, diesel firing and emissions:

Nearby residents have asked EnergyAustralia for detailed air quality information. Gas turbines produce nitrogen oxides (NOx), carbon monoxide and greenhouse gases. Diesel backup produces more nitrogen dioxide, carbon monoxide and particles, and needs water injection to control NOx, which adds to the project's water demand.

The company's modelling concludes that pollution levels would stay within EPA limits, but we question what that conclusion rests on. Its background data comes from a monitoring station 59 km away and its weather data from Goulburn Airport, with no local monitoring. The background data used for fine particles already exceeded the health limit on some days, yet the report finds "no additional exceedances".

The EPA's health-based limits are looser than the World Health Organization's 2021 guidelines and staying under a limit does not mean the air would stay the same. Many of us moved here for clean air, and that is a cost to our wellbeing that a limit does not capture.

EnergyAustralia presents the plant as support for the renewable transition but it is still a new fossil fuel power station, planned to operate for 25 years from 2032 to 2058, well past 2050, the date by which the report itself expects the grid to reach net zero. At the 15% run time it calls most likely, the plant would emit about 1.37 million tonnes of greenhouse gases a year. The company would only need to offset its direct emissions from 2036, several years after it starts running.

Should this project proceed, we are asking for local air monitoring before and during operation, published stack emissions data, binding conditions on diesel hours, plume and odour, results showing how many hours homes would be above set levels, and a health risk assessment for nearby residents.

Water Sourcing:

Operational water is now estimated at up to 130 ML a year (52 Olympic swimming pools), plus 181ML during construction. The company's preferred sources, in order, are stormwater harvested on site, extraction from the Wollondilly River (in the Sydney drinking water catchment), and recycled water trucked from the Marulan sewage treatment plant.

None of these is secure. By the company's own modelling, stormwater would supply as little as 0 to 50 ML in a dry year against about 106 ML of demand. The river licence carries no allocation, so water would have to be traded from existing users, and it can't be taken in low flows. The report accepts that in drought another source would be needed. The recycled water depends on a sewage plant upgrade that hasn't been built and a pipeline needing separate approval, with supply from the council described only as indicative. In the meantime, it would be trucked, with about 51 heavy vehicle movements a day for water and diesel deliveries, around the clock. In drought the plant could reduce its water use only by running less efficiently.

Bushfire, flooding and emergency access:

The site and its access are flood prone. Sections of Canyonleigh Road go under up to 3m of water with a 1-in-5 chance each year. In a probable maximum flood, the largest flood considered physically possible, the report's modelling shows almost the entire power station area under water. In a 1% flood, the western edge of the site goes under, where the stormwater basin is proposed beside the Wollondilly River in the Sydney drinking water catchment. Local residents have also experienced repeated road flooding in recent wet years.

The project site also sits within a bushfire-prone rural landscape with the highest fire danger rating category in NSW, roughly 20 minutes from the nearest RFS station and relies on constrained local road access. EnergyAustralia's scoping report says the project "may increase the risk of causing or perpetuating bushfires". The bushfire assessment in the Modification Report is about protecting workers and equipment, not neighbouring residents. It accepts there is a risk of entrapment, and the report acknowledges that traffic from neighbouring projects could cause a "bottleneck" in an emergency evacuation on Canyonleigh Road. The main escape route is the road west, the secondary exit is a trail across another landowner's land, and the evacuation plan won't be prepared until just before construction. The project involves about 13 ML of diesel storage and a gas pipeline and off-take station that would be unmanned with no automatic leak detection or isolation.

The combination of bushfire risk, flood-prone access, heavy construction traffic and large on-site fuel storage raises obvious questions about evacuation, emergency-service access and whether residents and workers can safely move through the area during a major event. We are asking for the evacuation plan to be made public before any decision, assessed together with the neighbouring projects, and to include residents.

Biodiversity:

EnergyAustralia's Modification Report and 2026 federal referral confirm several biodiversity concerns. The project has been declared a controlled action under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) and will require federal environmental approval.

Surveys detected the threatened Diamond Firetail, Gang-gang Cockatoo, South-Eastern Glossy Black-Cockatoo, Key's Matchstick Grasshopper, and the Pink-tailed Legless Lizard is assumed present. The report says that significant impacts are possible for all except the South-Eastern Glossy Black-Cockatoo, even after redesign. It concludes there would be no significant impact on the Glossy Black-Cockatoo, even though it recorded the species breeding on the site in April 2026, with a chick heard and adults entering a hollow along Canyonleigh Road. The same assessment accepts that removing breeding hollows could disrupt the breeding cycle, because suitable hollows take so long to form, and leaves their protection to detailed design.

Two critically endangered ecological communities, White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Werriwa Tablelands Cool Temperate Grassy Woodland would also be affected and are considered at risk of serious and irreversible impact. Nearly a fifth of the project footprint (the gas pipeline connection) could not be surveyed because of land access and was assessed remotely. Surveys for three threatened plants in the remaining area are scheduled for October 2026, with the results due in the company's response to submissions after exhibition closes, so the public can't comment on them.

The project would clear about 67.58 ha of native vegetation, including 47 hollow-bearing trees. This removes habitat for several threatened species, including 35 ha for the Gang-gang Cockatoo (with breeding hollows), 51 ha for Key's Matchstick Grasshopper and 40 ha for the Southern Myotis, a bat listed as vulnerable in NSW with a confirmed roost in a culvert on Canyonleigh Road. It also removes foraging and breeding habitat for woodland birds such as the Diamond Firetail, Dusky Woodswallow, Scarlet Robin, Speckled Warbler and Varied Sittella.

Genoplesium jonesii is an orchid found on the EnergyAustralia property in February 2025 and formally described as a new species in December 2025. It is known from only three locations. The report records 90 individuals (205 in 2025) in the Project Area. Because it isn't formally listed as threatened, it was left out of the federal referral, and it is only being treated as Critically Endangered under NSW law as a precaution.

Temporary workforce and local benefit:

The proposal includes temporary accommodation for up to 400 workers off Ambrose Road, 9km South West of the project. The Modification Report describes the workforce as predominantly fly-in-fly-out and drive-in-drive-out and estimates the influx would increase Marulan's population by 28%. Potential impacts include road use, waste, wastewater, emergency services, noise and community amenity.

Property values, neighbour impacts and fairness:

Residents living close to the project are concerned about property devaluation, reduced future saleability, loss of rural amenity and property-market stigma. These impacts are distinct from whether noise or visual thresholds are exceeded.The Modification Report says the company would consider compensation only where value loss can be evidenced through sales after the plant is operating. The draft neighbour agreement does not appear to directly address compensation for property value loss. Eligibility for neighbour benefits is dependent on the proponent's assessment of who is 'significantly impacted'. Financial support contingent on signing will create pressure before approvals are finalised and impacts understood.

Noise, lighting, and rural amenity:

Concerns include construction, operational and truck noise, (including low-frequency noise), night lighting and loss of dark sky conditions, the visual impact of stacks and other infrastructure, any visible exhaust, potential heat and disturbance effects on nearby wildlife. EnergyAustralia, now proposes up to four gas turbines, with stacks of 35- 45m. They have also said the final height depends on air-quality modelling because lower stacks give worse air quality at ground level. Residents are left weighing more visible stacks against poorer air quality.

Construction of the Canyonleigh Road upgrade is predicted to exceed the noise-affected level (45 dB(A)) at every home assessed. At the two worst-affected homes, the predicted levels are 75 and 73 dB(A), at or just under the 75 dB(A) "highly noise affected" level.

The report predicts operational noise will comply at all homes, but the margin is thin in places. At the nearest residence the predicted level reaches the 35dB(A) criterion exactly. The noise assessment is based on default background levels from the NSW Noise Policy for Industry. No noise monitoring was carried out at any residence, so the report cannot say how much the plant would add to what residents hear now. These impacts should also be assessed cumulatively with the other industrial developments proposed in the area.

Economic viability and necessity:

The Modification Report says the plant is most likely to operate up to 15% of the year but the actual run time "remains subject to considerable uncertainty" and the plant "may operate more frequently than envisaged under the approved project". No cap on operating hours is proposed. By comparison, Kurri Kurri's approval limits operation at approximately 12.5% of the year (about 1,100 hours) and diesel firing to 175 hours. Marulan assumes 120 hours of diesel firing a year but proposes no limit.

Experts have questioned whether the economics work. In the ABC report published in May 2026, a professor at the University of Queensland's Gas and Energy Transition Research Centre, said "If it runs for 10 per cent of the time, it's going to have to have a very high power price."

Ty Christopher, Director of the University of Wollongong's Energy Futures Network, also questioned whether a plant this size is viable and said he "can't see how something on the scale that they're talking about would stack up economically." He also warned about gas being used as a "Trojan horse" for continued baseload reliance, calling it "20th-century technology for a 21st-century grid."

Other Gas-Fired Power Stations (GFPS) in Australia

Torrens Island B (South Australia) is the current largest GFPS in the country at 800MW, reduced from 1.28GW after the retirement of Torrens A between 2020-22. Marulan at 1.4 GW would be nearly twice the size of the largest existing station.

The most recent large gas plant built in NSW is Snowy Hydro's Kurri Kurri, which was due to be operating by December 2023 but has been repeatedly delayed. Its cost rose from an initial $600 million to about $1.3 billion for the plant itself, and well over $2 billion with total costs including gas pipeline infrastructure. Diesel testing in July 2025 produced visible emissions and a strong odour across parts of the Hunter. Snowy Hydro paused testing and the NSW EPA investigated. As of late September 2026 Snowy Hydro was still completing diesel testing. Kurri Kurri is substantially smaller than the proposed Marulan GFPS at 660MW.

Current Status

EnergyAustralia has lodged the Modification Report with the Department of Planning, Housing and Infrastructure (DPHI). The report is on public exhibition from 15th of October to 12th of November 2026. EnergyAustralia expects a decision in 2027. Many important questions including final design, biodiversity offsets, cumulative traffic, water arrangements and neighbour mitigation are unresolved.

Sources used to build summary

- EnergyAustralia, *Marulan Gas-Fired Power Station Modification Report* (October 2026, Revision 0)

- EnergyAustralia, *Marulan Gas-Fired Power Station Scoping Report* (August 2025)
- EnergyAustralia, *Marulan Gas-Fired Power Station Revised Scoping Report* (January 2026)
- Australian Government, EPBC referral 2026/10461, Marulan Gas Fired Power Station (March 2026)
- NSW Planning Portal, project approvals MP07_0174, MP07_0175 and MP07_0176, including current modification pages
- EnergyAustralia, *Roads and Traffic* information sheet (information current April 2026)
- EnergyAustralia, *Workers Accommodation* information sheet (information current April 2026)
- URS, *Marulan Gas Turbine Facilities – Submissions Response and Preferred Project Report* (12 May 2009)
- *Canyonleigh BESS, Traffic Impact Assessment*, prepared for Environmental Resource Management (ERM), 16 December 2025, Ref. 1057 rep 251216 final
- ABC News, 15 May 2026, reporting on the proposed Marulan expansion and energy economics commentary
- Snowy Hydro, Kurri Kurri Power Station community and commissioning updates (2025– 26)
- EnergyAustralia, Community Reference Group minutes (June 2025 – April 2026) and Meeting 6 presentation previewing the Modification Report
- RenewEconomy, "Origin dusts off plan for one of Australia's biggest peaking power plants, using gas and diesel" (September 2026)
- NSW Planning Portal, Gunlake Quarry Continuation Project (approved 2 March 2023)
- Telopea, "Genoplesium jonesii sp. nov., a new species of Prasophyllinae (Orchidaceae) from New South Wales" (December 2025)
- RenewEconomy and WattClarity reporting on Kurri Kurri costs and delays (2025–26)