

# EnergyAustralia Yallourn Social and Environmental Performance Summary 2024



## A Message from the Head of Yallourn



The following report provides the detail to the social and environmental performance of EnergyAustralia Yallourn operations for 2024. During 2024 we have continued realising the improvements in reliability and predictability of the power station operations. Work in the Maintenance Excellence program has further progressed as the completion of all 4 major overhauls were completed with the Unit 4 being the last and successfully returning to service at the beginning of 2025.

Safe, Reliable, Predictable Capacity remains our goal through to end of life and the site is in the process of restructuring operations to ensure that we can maintain the improvements gained over the past 2 years and successfully complete the balance of the run through to the planned closure in 2028.

These major works completed in 2024 engaged over 600 people during the execution of the work.

The Morwell River Diversion has remained stable whilst the geotechnical team has continued reviewing and studying the structure, along with our

external experts, to ensure that we continue to understand the risks and maintenance requirements needed to retain the Morwell River Diversion in good condition, whilst meeting the requirements and expectations of the business, the community and the regulator. As we reported last year, this will enable ongoing mining and future capability as the Morwell River Diversion will be an important aspect of the planned remediation of the site. Ongoing maintenance of the Morwell River Diversion is part of our work program through to 2028 and beyond.

Progressive rehabilitation of the mine has continued, and future plans developed to support the activity required for the mine to be ready for final rehabilitation when mining ceases in line with the closure of Yallourn in 2028.

Our Rehabilitation team have been working hard to prepare all the aspects required to enable Energy Australia to finalise the Declared Mine Rehabilitation Plan (DRMP) for public scrutiny during 2025 as part of the submission process of the plan to the regulator and government.

At Yallourn we have continued to employ new roles during 2024 and this will further progress during 2025 as we structure our workforce for a successful transition to closure in 2028. Our Transition Team has been actively engaging with our workforce and the wider community to deliver training and support programs aimed at ensuring our people have the best opportunities and skills to continue their chosen career pathways when the operation at the Mine and Power station cease as a generating site.

Safety at Yallourn is our primary focus, and we have again delivered all of the aspects of our Health, Wellbeing and Safety Improvement Plan. During 2025 we will also be formally establishing an Yallourn focused Environmental Improvement Plan, which will highlight specific performance improvement projects to be achieved this coming year.

Our Yallourn grants and sponsorship program was fully subscribed again in 2024 with many deserving recipients with continue to focus on community benefit with a keen eye on the ability to support education within the district.

I trust that the full information on these activities and others that is contained in this report will continue to provide you with insight into our business, our management of our environmental obligations, and our continued support of the community and our workforce. All of which makes a positive impact, given the dedication and diligence of the team at EnergyAustralia to assure a responsible transition to the future.

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Greg McIntyre Head of Yallourn

## **Our Performance at a Glance**

In 2024, our safety and environment systems performance at a glance shows:

DESCRIPTION	RATING	COMMENTS	MEASURED AGAINST
How we do business			
All Planned Audits Completed	****	Target Achieved	Internal
External Environmental Management System Audit	****	Certification maintained to ISO 14001	External
External Safety Management System Audit	****	Certification maintained for OHSAS 18001	External
Our Operations			
Coal Rate	****	Target achieved	Internal
Coal Supply Reliability	****	Target achieved	Internal
Electricity Sent Out	***	Target not achieved	Internal
Our Employees			
Training – Safety, Health and Environment	****	Target achieved	Internal
Employee Availability	****	Target achieved	Internal
Our Safety and Health			
Prosecutions Safety	****	No prosecutions received for environment	External
Prosecutions Environment	****	No prosecutions received for environment	External
Emergency Response Exercises	****	Target achieved	Internal
Safe Work Observations	****	Target exceeded	Internal
Hazardous Material and Storage Assessments	****	Target exceeded	Internal
Lost Time Injuries	t Time Injuries **		Internal
Total Injury Frequency Rate	**	Target not achieved	Internal
WorkSafe Improvement Notice (PIN) ** *		3 improvement notices	External
Our Environment			
Wastewater Volume and Quality Discharge	****	Exceeded target and met EPA licence	External
Net Water Consumed	***	Met External Requirements	Internal
Land Rehabilitated	****	Met internal performance target	Internal
Topsoil Stockpiled	****	Met internal performance target	Internal
Greenhouse Gas Emissions Intensity	****	Met internal performance target	Internal
Sulphur Dioxide Emissions To Air	****	Met internal performance target	External
Oxides of Nitrogen Emissions To Air	****	Improved performance trend	External
Carbon Monoxide Emissions To Air	****	Met internal performance target	External
PM<10um Dust Emissions To Air	****	Met internal performance target	Internal
EPA Licence Breach	****	No licence breaches	External
Public Enquiries	****	2 enquiries received	Internal

 $\star \star \star \star \star$  Exceed Internal Performance Indicator or Improved Performance

- $\star \star \star \star$  Achieved Internal Performance Indicator or Improving Performance Trend
  - ★ ★ ★ Met External Requirements or Worsening Performance Trend
    - ★ ★ Not Met External Requirements or Internal Performance Indicator
    - ★ Infringement Notice, Prosecution, Penalty or Contractual Breach

# Sustainable Business Operation

### Production

• Yallourn production targets met.

### Water

- During 2024, 653 mm of was rainfall recorded which is lower than the sites annual average of 790 mm.
- Latrobe River water consumption of 25988 ML is 71% of the annual Bulk Water Entitlement of 36,500 ML which is a 9% decrease compared with 2023.
- The water consumption rate was 3.1 megalitres/giga watt hour (ML/GWh) generated, which was below the maximum average for water use of 3.3 ML/ GWh.
- Wastewater quality was compliant with EPA Licence conditions (including: colour, suspended solids, total dissolved solids, electrical conductivity, turbidity and pH).

Auditing of the ash line as part of monitoring and management of the environmental risks

- Treated wastewater discharged to the Morwell River 13444 ML representing 31% decrease when compared to 2023.
- Wastewater discharged to Morwell River at an average daily rate of 36.8 ML/day over the calendar year was well below the annual
- daily mean licence limit of 80.5 ML/day.

#### Land

- Completed 37.1 hectares of mine rehabilitation, exceeding the planned rate of 25 hectares for the year.
- Achieved target to rehabilitate more land than disturbed by mining.

#### Air

Average particle emissions in 2024 (0.091 g/m<sup>3</sup>) a slight increase from 2023 level (0.087 g/m<sup>3</sup>). It remains below the annual business target of 0.1 g/m<sup>3</sup> and well below the EPA licence limit of 0.22 g/m<sup>3</sup>.

#### **Environment Compliance**

During 2024, EnergyAustralia Yallourn (EA Yallourn) complied with all aspects of the EPA operating licence. However, EPA Victoria issued an infringement notice relating to the failure to record in Waste Tracker the transaction details for a delivery of reportable priority waste (brown coal ash) to Latrobe Magnesium Limited on 22 April 2024. EnergyAustralia are currently enacting the rights of review available and continue to work closely with EPA to better understand the rationale for their position and identify opportunities to strengthen our processes where expectations are not aligned

### Power Station Asset Program 2024



Unit 1 Primary Economiser Replacement

### Power Station Asset Program 2024 Cont.

There were one and a half major outages for calendar year 2024 (Units 1 & 4 (half of unit 4 outage completed in 2024 and balance completed in January 2025)), and essential maintenance was conducted during a number of minor outages on all units. Targeted investment at Yallourn for 2024 improved asset efficiency and reliability, and also achieved a 10% reduction in unplanned outages for the year compared to 2023.

During normal operation much of the plant associated with running the units is operating continuously 24 hours per day, seven days per week and, as would be expected, these plant items slowly wear or degrade. This can mean, for example, steel ductwork through an erosion process becomes thinner to the point where holes can appear. Mechanical rotating items wear, causing clearances between components to become larger, potentially reducing the efficiency of these machines. Heat exchangers can become less efficient due to a build-up of solids on the heat conducting surfaces. During a major outage many of these issues are addressed. Outages also present an opportunity for modification or retrofitting works that can further increase the performance and efficiency of the plant beyond the original design levels.

Key works completed during minor outages:

- Rotary Air Heater Pack inspections and cleaning;
- Combustion plant inspections and repairs;
- Inspection and Overhaul of pumps and valves across the plant ;
- Electrostatic Dust Precipitators (EDP) checked to ensure that the electrodes and collecting plates were correctly aligned to help ensure optimum efficiency;
- Boiler tubes inspection and replacement program;
- Boiler Internal cleaning to restore boiler efficiency;
- Generator and Generator Transformer inspections.

#### 2024 Major Outages

An outage or plant shutdown is an opportunity to carry out inspections, repairs and modifications to the operating units that cannot be done under normal operating conditions.

Work carried out during the 2023 Unit 2 & 3 outages included:

- Rectifying air ingress issues into the condenser so that the turbine efficiency was improved;
- Cleaning of condenser tubes to improve heat transfer;
- Blast cleaning of Turbine rotors and diaphragms and closing up of gland clearances to improve turbine efficiency;
- Stack internal and external inspections;
- Cooling tower internal and external inspections;
- Boiler Outlet ductwork inspection/repair including expansion joint replacement;
- Rotary Air Heater pack and seal replacements;
- Rectifying mill recirculation dampers so that the combustion efficiency was improved;
- Rectifying many leaks in ducts associated with the main firing plant so that the combustion process would be improved and Induced Draft fans could operate at a lower load, saving electricity used in the power station. This was completed mainly through expansion joint replacements, duct realignment and sealing to the furnace walls;
- Hopper air ductwork replacement to improve boiler combustion efficiency;
- · Rectifying oil burners and air supply ductwork improving combustion efficiency;
- On many pumps, the clearances between rotating parts were brought back to design clearances making these pumps operate more
  efficiently;
- Turbine safety valves are stripped, inspected, rebuild and tested to ensure the main turbine protection regime is fully operational;
- Electrostatic Dust Precipitators (EDP) were checked to ensure that the electrodes and collecting plates were correctly aligned and
  insulators in good condition to help ensure optimum efficiency;
- Many different types of heat exchangers were inspected, cleaned and tested to ensure they would operate at the required
  efficiency;

# Power Station Asset Program 2024 Cont.

- Insulation and cladding was replaced in places to minimise heat loss;
- The boiler and associated tubes were inspected and where necessary sections were repaired or replaced;
- The boiler was thoroughly cleaned to ensure heat exchange processes would occur as required, maximising efficiency.



MRDs replace on Unit 1 Mill



Swirlers Installed on selected unit 1 mills



Fuel Oil Burner Replacement Before



Fuel Oil Burner Replacement After

The Yallourn Power Station generates enough electricity every day to supply 2 million Australian homes. More than 500 people work at the plant and it spends millions of dollars every year with local businesses.

We have released our second Climate Transition Action Plan (CTAP), providing an update on progress made over the past 15 months and, for the first time, outlining our pathway to achieving its ambition of Net Zero Scope 3 emissions by 2050.

We have committed to Australia's transition to net zero emissions with cleaner, reliable and affordable energy for our customers. EnergyAustralia launched an update to our Climate Transition Action Plan Statement with main targets:

- EnergyAustralia is committed to achieving Net Zero greenhouse gas emissions across Scopes 1 and 2 by 2050, and it is our ambition for this commitment to extend to Scope 3.
- To reduce our direct carbon dioxide emissions by over 60% on 2019-2020 levels in 2028-2029; and
- To transition out of coal assets by 2040;
- To have our portfolio include up to 3 GW of renewable energy, committed or operational by 2030;
- Over the past year we have gained a deep understanding of the sources of our Scope 3 emissions, how to most accurately calculate energy-related emissions and what will be the most effective ways to assist customers to reduce their emissions.

EnergyAustralia remains dedicated to the sustainable operation of Yallourn Power Station prior to the closure in 2028 which significantly contributes to the target of over 60% reduction in direct carbon dioxide emissions in 2028-2029.

For financial year 2024, there was a 5.2% decrease of Scope 1 direct emissions compared with financial year 2023 and corresponds with a decrease in coal consumption and power generation.

## Mine Development

The development of Yallourn Mine progressed in a south-easterly direction through the Maryvale Field, encompassing all coal operations and overburden removal activities. Coal supply to the power station was maintained through the two-level coal system, with two feeder breakers operating on each coal level.

Overburden removal continued with Dredger 13 and the fixed overburden system, supplemented by the overheight truck and shovel operation during the summer months. In 2024, approximately 3 million cubic meters were removed by the truck and shovel operation, while 5.1 million cubic meters were removed by the dredger, with most of the material being conveyed to the East Field Overburden Dump and Maryvale Field Floor. A significant portion of the overburden is used each year to support the mine's geotechnical stability and environmental initiatives, such as buttressing, weight balance, coal coverage for fire prevention and dust control, and progressive

### **Fire Preparedness**

#### **Re-imaging the future of Yallourn**

Fire preparedness remains a critical priority for Yallourn Mine to mitigate the risk of external fires entering the mine or internal fires spreading offsite. Throughout the fire season, the Mine Fire Prevention Committee meets monthly to monitor the progress of fire mitigation activities and review both inherent and forecast fire risk conditions, allowing for timely adjustments to management measures as required. The pre-fire season outlook, which forecasted hot and dry conditions, prompted an early start to the fuel reduction and inspection program.

In 2024, several major projects were completed to enhance fire preparedness. These include the completion of the fire service pond batter stability works, allowing the pond levels to return to their design operating levels and resulting in an additional 2GL of water volume. Additionally, approximately 2km of fire service mains pipeline extensions were constructed around the site to accommodate mine growth. The area of exposed coal was reduced by 18Ha in 2024 leaving the current area at 242Ha. Coal coverage was predominantly achieved by placing overburden material in Maryvale Field through the truck and shovel operation. A new Maryvale field dewatering system has also been installed in Maryvale Field, allowing a higher operating water level which covered further exposed coal.

# Mine Closure & Rehabilitation Planning

Best practice internationally and nationally for mine closure, is to undertake closure planning and progressive implementation during mine operations. As such, Yallourn is actively reviewing its mine closure planning and implementation throughout its operational mine life.

The development of a conceptual Rehabilitation and Closure Plan (RCP) was completed in 2018. It presented a flooded mine concept as the preferred final landform. The RCP was submitted and approved by Earth Resources Regulation (ERR), as part of the 2018 Work Plan Variation.

In 2024, EnergyAustralia Yallourn completed both technical and non-technical studies to demonstrate that the mine will be "safe, stable, non-polluting and sustainable" in the long term, and provide information to enable the development of defensible closure designs. These include:

- Mine Wide Geotechnical Batter Feasibility Study
- Mine Wide Surface Drainage Feasibility Study
- Morwell River Diversion (MRD) Geotechnical Feasibility Study
- Further detailed investigation into Groundwater Dependent Ecosystems to understand how a full pit lake will impact groundwater levels and the ecological systems that are influenced by them
- Laboratory studies of Capillary effects in coal
- Rehabilitation and Closure Process Risk Assessment
- Erosion modelling
- Wave Impact Assessment
- Continuation of Pit Lake Water Quality Model by progression of the sampling and analysis plan
- River Hydrology Assessment- Detailed Numerical Model & Impact Assessments
- Lake Seismicity Study

A range of technical studies were also begun in 2024 that will continue into 20245 These include:

- Hydro Numerical Modelling
- Detailed Site Investigation of Land Contamination
- Field studies of Coal Capillary
- Surface Drainage Trials
- Evapotranspiration/ Lysimeter Trials



Morwell River Diversion (MRD)

### **Mine Progressive Rehabilitation**

The progressive rehabilitation program continued in accordance with the Mineral Resources Sustainable Development Act 1990, Work Plan, Risk Assessment Management Plan, and internal business requirements, completing 37.1 Hectares (Ha) of new rehabilitation against 36.2 Ha of disturbance. This marks the 20th consecutive year that the Yallourn Mine has rehabilitated more land than it disturbed. For historical trends of annual disturbance and rehabilitation, refer to the figure on page 10.

Progressive rehabilitation serves as a key environmental performance indicator, primarily aimed at reducing the coal footprint and minimizing fire and dust exposure. Once coal is covered by site overburden, vegetation is crucial for protecting the cover from erosion and wash-away. The approach to vegetation varies by location: on steeper areas, topsoil is spread to support successful plant growth, while on flatter areas, native vegetation or grass profiles are directly established on the overburden. The overall environmental benefits of progressive rehabilitation include reduced fire risk, lower dust emissions, improved water quality, increased habitat area, and a more aesthetically pleasing landform.

We are continually exploring ways to integrate operational mine development with the final rehabilitation plan, which includes the flooded lake. In 2024, further enhancements were made to the mine's design and operations, focusing on strategic overburden dumping to improve mine stability and coal coverage.

Summaries of individual progressive rehabilitation projects completed during 2024 can be found on page 10

#### 2024 Rehab Area 1: Interim stabilization of the East Field Overburden Dump

The East Field Overburden Dump (EFOB) Dump is a storage for the largely sandy material which is mined out above the coal. The EFOB Dump provides approximately 32 meters of vertical coal coverage and is growing at approximately 15 Ha of surface area each year. This significantly lowers risk from coal fire and, if planned correctly, can make the post mining landform more stable. During 2024, progressive rehabilitation of the EFOB Dump included a 18 Ha section of native habitat. This vegetation provides the erosion protection needed to control dust emissions whilst also providing water quality benefits by primarily limiting erosion.

#### 2024 Rehab Area 2: : Yallourn North Open Cut Return Water Basin Batter

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#### 2024 Rehab Area 3: Yallourn North Open Cut- Historic disturbance

In the 1950s an area to the West of the Yallourn Township, approximately 8.2 Ha in size, was disturbed due to Mining the Yallourn North Open Cut. This area had then regenerated itself over the decades. To ensure the landform was stable and no further rehabilitation works were required, inspections were undertaken to observe the condition of the landform. The area had shown no evidence of instability however weed control was required, therefore 4 operator days of weed control was conducted through September. Weeds controlled included Blackberry, Briar Rose, Cape Broom, Flax-leaf broom, wild watsonia, scotch thistle, spear thistle, blue stars, blue periwinkle, sallow wattle, tall fleabane and Spanish heath. In addition, the area has now been included on an annual weed control program to ensure further weed infestations are controlled.

#### 2024 Rehab Area 4: Hernes Oak- Historic Disturbance

In the 1940s a portion of Hernes Oak was developed into residential housing, adding to the growing township of Yallourn. However, in the late 1970s the township of Yallourn was progressively relocated and removed to make way for the expanding Yallourn Mine. An area of about 6.6Ha was not Mined and had not been developed into agricultural land although had been disturbed due to the relocation and removal of the houses. Similar to the Yallourn North historic disturbance, the landform was in an acceptable condition although weed control was required to rehabilitate the area. 6 operator days of weed control was conducted in September and October. Weeds controlled included Blackberry, wild watsonia, spear thistle, blue stars, pine, cotoneaster, blue psoralea, sallow wattle, sweet

pittosporum and Spanish heath. This area has also been included on the annual weed control program.

#### 2024 Rehab Area 5: Fire Service Batter Surcharge

As the Yallourn Mine nears its closure, the Fire Services Pond Batters were identified as needing toe surcharging to maintain landform stability. Approximately 200,000m<sup>3</sup> of overburden was placed along the 800-meter length of the batter to achieve an acceptable safety factor. To facilitate this, the Fire Services Pond's water level was lowered to allow access to the batter's toe for material placement. This required modifications to the Fire Service Pump arrangement to enable the pumps to lower the water level beyond previous limits. After the material was placed, the new landform covered 4.1 Ha. The top 3 Ha of surcharge were seeded with a pasture grass mix, while the 1.1 Ha slope was hand-seeded with native plants to prevent erosion. Additionally, aquatic reeds were translocated to the water's edge to protect the surcharge from wave action.

### 2024 Rehab Area 6: Eastfield Extension (along Latrobe Road)

A 5Ha section of land between the Eastfield Extension and Latrobe Road was rehabilitated to form part of an Eastern wildlife corridor (Strzelecki-Alpine Biolink) running around the East of the Yallourn Mine. The area had several fallen and damaged pine trees as well as native regrowth following on from fires that took hold in 2014. The rehabilitation of the area involved cutting down and mulching the pine trees and removing any other introduced species and weeds. 1295 native tube stock plants were then planted throughout the area which included species such as Black Wattle, Blackwood, Messmate, Narrow-leaf Peppermint and Manna Gum.





## Mine Progressive Rehabilitation Continued

Landscape Function Analysis (LFA) surveys continued this year with surveys conducted across 23 transects within rehabilitated areas of the mine including 11 transects in the Northern Overburden Dump (NOB), eight transects in the Southern Overburden Dump (SOB), two transects in the Yallourn North Open Cut (YNOC) and two transects on the Perimeter Batters (PB). Erosion assessments on the East Field Extension Batters (EFEX), the PB, the Township Northern Batters (TNB) and the Township Western Batters (TWB) were conducted to compare against previous assessments.

The majority of the transects in the NOB and SOB (11 of the 19), and both YNOC and PB transects maintained 1.00 Landscape Organization Index (LOI) indicating a full patch with no inter-patches. A further three transects across the NOB and SOB recorded LOI of >0.90 indicating almost full patch, which is expected of transects in Gippsland (based on the areas rainfall). The NOB and SOB transects showed small improvements to stability, infiltration and nutrient cycling in the Soil Surface Assessments (SSA). The SSA results for the assessed transects of the YNOC and PB showed small decreases to stability, infiltration and nutrient cycling. These rehabilitated sites are younger than those of the NOB and SOB and the SSA results are within the range of variability seen in these transects in the past. The sigmoidal curve for NOB and SOB transects are approaching the far-right hand side and will soon be considered stable. Despite the small decreases seen for the YNOC and PB, the sigmoidal curve for these transects are still trending upwards.

The erosion monitoring of the EFEX batters show that the average number and size of rills has more than halved since assessments were last conducted in 2017. The average number of rills reduced from 10.0 /100m to 4.5 /100m whilst the mean cross section reduced from 183.5cm to 66.5cm. The TNB and TWB maintained a low level of erosion averaging 0.8 rills/100m and a mean cross section of 2.7cm. This was the first round of monitoring for the PB transects which recorded an average of 17.4 rills /100m and a mean cross section of 32.1cm. Erosion monitoring will be continued in two to three years where it is hoped that the EFEX batters will continue to see reductions and an improvement to the PB batters.

The landscape function results for the entire site have recorded improvements on last years and the average weighted soil surface assessment results for rehabilitated land have increased slightly to remain above the peak observed in 2015-2016.

Shown below is a Geographical Information System (GIS) representation of the key Yallourn Mine rehabilitation and disturbance areas including:

- Total Area Worked;
- Total Area Rehabilitated;
- Annual Rehabilitation for 2024;
- Total Area Water Bodies.

Environmental conditions within the mine have greatly improved thanks to the ongoing progressive rehabilitation program. This initiative has consistently reduced the coal footprint, helping to mitigate key



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## Ash Management

Ash is a by-product of coal combustion, with Yallourn typically generating over 200,000 cubic meters of ash each year. This ash is mixed with water and pumped from the Yallourn Power Station to the Twin Ash Pond storage facility, where it is drained, excavated, and transferred to the Yallourn Ash Landfill. Both the Yallourn Ash Landfill and Twin Ash Ponds, along with the Return Water Basin, are located within the previously mined void of the Yallourn North Open Cut. Given the potential environmental risks, ashing activities are closely regulated by the EPA, adhering to strict licence conditions and external environmental audits.

The Twin Ash Ponds serve as storage areas for wet ash, allowing it to drain, dry, and eventually be removed through excavation and haulage. To mitigate groundwater contamination risks, the ponds are fully lined with HDPE plastic, sand, and various operational controls to maintain the integrity of the liners.

The Yallourn Ash Landfill receives the dry ash from the Twin Ash Ponds. If not properly managed, potential environmental hazards include dust and contamination of surface and groundwater. To minimize these risks, interim capping, rehabilitation, and revegetation efforts are in place to reduce dust, and a network of groundwater bores is used to monitor and control water contamination.

In 2024, a total of 131,595 cubic meters of ash material was managed without any breaches of licence conditions or increased environmental risks. As part of its EPA Operating Licence, external auditors have been reviewing the management of the ash facility since 2011, with the most recent audit completed in December 2023. The auditor found that the monitoring program and management practices generally comply with the licence conditions.

Once the Yallourn Power Station ceases operations, ash production will stop, and the site will undergo rehabilitation to minimize any ongoing environmental risks. In December 2021, EnergyAustralia Yallourn submitted an Ash Landfill Rehabilitation and Closure Plan to the EPA, outlining how both short- and long-term environmental risks will be managed. The plan has been verified by an Environmental Auditor to meet the EPA Licence requirements.

### **Brown Coal and Ash Developments**



The Latrobe Valley, including Yallourn Power Station and Mine, is home to a very large resource of brown coal. While high in moisture, brown coal is well suited to a variety of non-power station uses, for example, the manufacture of fuels and chemicals, including hydrogen, and a number of projects are being developed in the Latrobe Valley.

In addition, a by-product of coal-fired power generation is ash, which in the case of Yallourn is high in minerals such as magnesium and iron and has the potential to produce high value products.

EnergyAustralia is supporting a project being developed by Latrobe Magnesium to recycle ash from Yallourn power station to initially produce 1000 tonnes per annum of magnesium plus other saleable by-products such as a supplementary cementitious material (SCM), with plans to substantially increase production to 10,000 tonnes of magnesium following the successful operation of the initial plant.

Magnesium is a critical mineral that makes a light and strong metal that has a variety of applications, including use in the car industry to make cars lighter and more fuel efficient, thereby reducing carbon emissions.

Latrobe Magnesium invested over \$60 million in the initial plant and plans to commence operations in 2025, creating up to 50 on-going direct jobs..



## **Conservation Management**

The Yallourn Conservation Management Plan (CMP) incorporates the offsetting of native vegetation losses caused by mining and protection of native vegetation within the Mining Licence area. There are three major approvals within the CMP which include the:

- Yallourn Mine Conservation Management Plan (2005);
- Offset Plan Yallourn Coal Field Development Maryvale Field Eastern Extension (2009); and
- Environment Protection and Biodiversity Conservation Act (EPBC) Approval 2008/4454 and accompanying Offset Management Plan (2011).

As a subset of the EPBC approval, EnergyAustralia Yallourn gained various additional approvals including three Land Owner Agreements and one Crown Land Licence with the Department of Environment, Land, Water and Planning (DELWP). These approvals allow protected Strzelecki Gum habitat to be managed in accordance with Federal and State native vegetation requirements.

Whilst the CMP encompasses various approvals and licences, the primary aim is to improve the quality and size of native vegetation by protection, revegetation and enhanced management. Furthermore, the 2024 program included significant campaigns of weed control maintenance and improvement and Pest Management.

Yallourn Mine planted a total of 12025 seedlings in 2024 of which the majority were placed within offset conservation zones and habitat improvement areas.

### Yallourn Mine Conservation Plantings completed for 2023

BOTANICAL NAME	COMMON NAME	TOTALS	BOTANICAL NAME	COMMON NAME	TOTALS
Acacia dealbata	Silver Wattle	910	Eucalyptus Strzelecki	Strzelecki Gum	3770
Acacia mearnsil	Black Wattle	325	Eucalyptus Viminalis	Manna Gum	215
Acacia melanoxylon	Blackwood	575	Goodenia ovata	Hop Goodenia	525
Acacia stricta	Hop Wattle	500	Kunzea ericoides	Burgan	675
Acacia verticillata	Prickly Moses	550	Leptospermum continentale	Prickly Tea-tree	600
Cassinia aculeata	Common Cassinia	450	Melaleuca ericifolia	Swamp paperback	1300
Eucalyptus obliqua	Messmate	215	Olearia Lirata	Snowy Daisy-Bush	500
Eucalyptus radiata	Narrow-leaf Peppermint	215	Pomaderris aspera	Hazel Pomaderris	700
				Total	12025

# **Environmental Community Projects**

EnergyAustralia stands behind our community and is proud to have continued support of the Latrobe Catchment Landcare Network (LCLN) for community-based conservation projects in 2024.

Latrobe Catchment Landcare Network are working with EnergyAustralia to enhance farming properties in our catchment region through the shade and shelter project. Funding is available to support projects on private land that provide shade and shelter for stock. Shelter belts, paddock trees and native vegetation provide enormous benefits in extreme hot and cold weather events, as well as being valuable assets for biodiversity and carbon sequestration.

The goal of this project is to engage landholders within the Latrobe Catchment Landcare Network area to fence off remnant vegetation and/or to create native shelterbelts across their property. EA have been supporting the project for 2 years now and have committed to another year.

This years achievement include:

- 3kms of fencing
- 2,880 trees planted
- 2.44Ha revegetated

Next year's allocations:

- 2.5kms of fencing
- 2,860 trees planted
- 2.95Ha revegetated



Planting day at a local Glengarry farm for the LCLN shade and shelter project creating habitat and enhancing properties.

### **Environmental Community Projects Cont.**

Protecting Platypus in Narracan Creek and Morwell River - After the withdrawal of 2 landholders last year, funding was redirected to a new site. This project achieved 792m creek line fencing and 4,000 plantings in 2024 Energy Australia continues to support this project and new sites within the entire catchment are being sought for future projects.





Planting day at a local Glengarry farm for the LCLN shade and shelter project creating habitat and enhancing properties.

### Fauna Monitoring

Fauna monitoring programs continued throughout 2024 with vertebrate surveys and bird surveys completed across the mine and perimeter areas.

### Land survey

Surveys to determine the presence of vertebrate fauna in three sites in CMP Block 37 and in three areas in the Old Yallourn Mine site were conducted over five days and four nights from 12 February 2024 to 16 February 2024. Seventy-nine vertebrate species were recorded comprising 20 mammals, 50 birds, five reptiles and four amphibians. No threatened species were recorded .

Breeding by Bush Rat was recorded at block 37 and in the oldest revegetation site inside the mine. Agile Antechinus and Bush Rat were recorded in two revegetation areas within the mine. Several species of reptiles and amphibians were recorded for the first time in the revegetation areas.

A wide range of woodland birds were recorded in block 37. These included several migratory and semi- migratory species that arrive in Victoria each spring to breed. These included Rufous Whistler, Rufous Fantail, Silvereye and Sacred Kingfisher. Wonga Pigeon, Red-browed Treecreeper and Rufous Fantail were recorded in block 37 for the first time since intensive surveys began in 2007. Fewer bird species were recorded in the three revegetation areas within the old coal mine. A new survey technique was used in one revegetation area to detect reptiles. Bat trapping in block 37 produced records of six species of insectivorous bats. A bat detector set at two sites in the mine area recorded eight species of insectivorous bats. Overall, ten species of bats were recorded, the highest number since intensive surveys began in 2007 and the uncommon Broadnosed Bat was recorded in Township Western Batters for the first time in any CMP area.

The overall results of these surveys show that revegetation programs, even in the most unlikely of places, can over time provide important habitat for a wide range of native species.

### **Bird survey**

The Yallourn Morwell River Wetlands were constructed in the early 2000's. The project consisted of over 100,000 plantings which have revegetated the area from grazing land to a quality habitat site. The Latrobe Valley Field Naturalists (LVFN) conducted four bird surveys of the wetlands during 2024. In total, LVFN recorded 82 different species during the visits; 76 natives and 6 introduced. They also recorded 6 FFG-listed species; Australasian Shoveler, Blue-billed Duck, Eastern Great Egret, Gang-gang Cockatoo, Hardhead and White-bellied Seaeagle. A summary of the EPA Licence water discharge compliance limits and actual performance results are shown in the table below.

INDICATOR	LIMIT TYPE	UNIT	LICENCE LIMIT	RESULTS FOR 2024 CALENDAR YEAR
Flow Rate	Mean Daily Flow	ML/day	80.5	36.8
Colour	Annual Median	Pt-Co	44	20
	Maximum	Pt-Co	70	50
Electrical conductivity	Annual Median	uS/cm	790	540
	Maximum	uS/cm	940	690
Turbidity	Annual Median	NTU	24	13
	Maximum	NTU	53	39
рН	Maximum	рН	8.5	7.2
	Minimum	рН	6	6.1

Summary of our EPA Licence water discharge.

## **Community Partnership and Engagement**

We started the year on a positive note with another successful EnergyAustralia Classic Singles lawn bowls tournament held at the Newborough Bowling Club during the first week of January. This event continues to attract top class bowlers to the Latrobe Valley, and we are proud to have been the major sponsor of the Classic Singles since 2008. EnergyAustralia has agreed to support this event until closure in 2028.

Our final 'major sponsorship' event for 2024 was the Moe Dance Eisteddfod, held in April at the Lowanna College Auditorium in Newborough, another local event that continues to go from strength to strength. EnergyAustralia has also agreed to support this event until closure.



Meredith Bowden with 2024 Winner Corey Wedlock



Steve, Stella and Alf Vella Present Rebecca Harvey with a Certificate of appreciation One of the activities that we are very proud of, is our involvement with the People's Kitchen in Morwell which is run through the Morwell Neighbourhood House. Financial support is provided through our Workplace Giving Program which assists with the purchase of food, while employees are also encouraged to volunteer with food preparation. Employees at Yallourn also stepped up to again and to donate toys to the annual Gippsland Motorcyclists Christmas Toy Run. Our toy collection for the Toy Run was one of the biggest we have had thanks to the generosity of our people – which included those from EnergyAustralia, our Alliance partners and our on site contractors.



Donna Nieuwenhuys with Operations collections

### Community Partnership and Engagement Cont.

Throughout the year funds from our sponsorship program (up to \$1,000) were distributed to:

- Country Woman's Association;
- Rotary Club of Moe;
- Tyers Soccer Club;
- Moe Bowls Club;
- Yallourn North Fire Brigade;
- Moe Art Society;
- Morwell Senior Italian Citizen Club;
- Hill End Community Art Show;
- Gippsland Sports Academy;
- Gippsland Reserve Committee (Old Gippstown);
- Baringa Special School;
- Moartz;
- Moe Art Society;
- Gippsland Antique Bottles & Collectables Club;
- Albert Street Primary School;
- Moe United Soccer Club;
- Stadium34;
- Mt Baw Baw Scouts;
- Latrobe Community Concert Band;
- Variety;
- Moe Crick Club and;
- Yallourn North Uniting Playgroup.

Our grant program (up to \$10,000) was again run over two rounds during 2024, with funds allocated as follows:

- 304 Army Cadet Unit Newborough, \$10,000.00 for the purchase of a trailer to provide the cadet unit a permanent solution for storage of gear such as cadets overnight packs, food rations, 12v fridge, batteries, fuel, water and first aid equipment in a safe lockable weatherproof area.
- Gippsland Immigration Park Inc. \$10,000.00 to concrete a pathway to enable access to all.
- Gippsland Community Radio Society Co-Operative—\$3,200.00 to establish an on-demand programming facility for the station in order to meet better needs of our local community.
- Trafalgar Men's Shed—\$5,060.00 purchase of air-conditioning units for their artistic space.
- Moe Art Society—\$1,500.00 to support their annual spring art show.
- Newborough East Primary School—\$1,000.00 to purchase an additional dishwasher for their increasing breakfast club program.
- Morwell Central Primary School—\$10,000.00 to upgrade the performing arts centre sound system.

- Newborough East Primary School—\$10,000.00 to install a solar system in the school for sustainability.
- Trafalgar Football Netball Club—\$10,000.00 to purchase a netball shelter.

Our 2024 Major Outage Funding supporting the following:-

 Quantum Support Services — \$10,000.00 to supply and install 6 split systems in the residential units that provide short term accommodation for those in crisis situations.

Another successful year supporting our local community, and we look forward to a bigger and better effort in 2024!



Yallourn Grant Recipients.



avid Burt and Rebecca Harvey with the team at Quantum

#### **Engagement Activities**

Regular Stakeholder meetings were conducted during the year with Stakeholders including the Gunaikurnail Land and Waters Aboriginal Corporation, Latrobe City Council and local parliamentarians.

Community group engagement included monthly attendance at the Advance Morwell and Churchill and District Community Association meetings. The Yallourn North Action Group is currently in recess and we hope to be recommence meeting with them during 2025.

During 2024, the Morwell Bowling Club's buildings were destroyed due to fire. The fire displaced many community groups from their regular meeting venue and we now host their monthly meeting at our new EnergyAustralia Community hub in Morwell.

#### **Environmental Advice**

During 2024 an "Environmental Advice" we continued to proactively advise the community of environmental events that could, or potentially impact the local community. Events reported on included excessive noise and visual emissions. For 2024 a total of six (6) Advices to the community were issues on the Yallourn Facebook page.

#### SEEKNG COMMUNITY FEEDBACK

During the year, Newgate undertook an EnergyAustralia Yallourn Mine Rehabilitation Community Sentiment Research survey

The research objectives included understanding:

- Contextual community issues of concern and attitudes toward various energy projects;
- Current levels of awareness, knowledge and attitude towards EnergyAustralia;
- How EnergyAustralia is performing on specific social licence KPIs (e.g. related to environment, community and local economy);
- Awareness, knowledge and attitudes towards the proposed Yallourn rehabilitation project; exposure to this information.

The survey feedback will used to help design our engagement activities as they relate to the rehabilitation of the Yallourn Mine.

#### **100 YEARS OF YALLOURN**

During June Yallourn celebrated with the community a centenary of generation at the Yallourn site.

This included the sponsorship of a weekend event at PowerWorks in Morwell and supporting an Engineers Australia event with Museum Victoria in Melbourne. The Yallourn team is proud of our contribution to Victorias energy needs of the last century

### **GIPPSLAND NEW ENERGY CONFERENCE**

During September, EnergyAustralia sponsored the Gippsland New Energy Conference held in Traralgon. The three day event saw well over 700 delegates attend the conference.

### WOOREEN ENERGY STORAGE SYSTEM PROJECT

EnergyAustralia **İS** progressing its commitment to build Australia's first four-hour utility-scale battery of 350 MW capacity in the Latrobe Valley. The Wooreen Energy Storage System will be located at Hazelwood North, alongside EnergyAustralia's existing Jeeralang gas-fired power station.

Designed as a utility-scale battery system, it will have the capacity

to deliver 350 MW of power— sufficient to supply electricity to approximately 230,000 homes for four hours before requiring

a recharge. Spanning an area equivalent to five football ovals, Wooreen stands as one of Australia's largest battery storage

projects.

The project will be constructed on land owned by EnergyAustralia,

adjacent to the Jeeralang Power Station at Hazelwood North.

The project's significance extends to providing an economic boost for the Gippsland region while supporting a sustainable energy future.

During December, EnergyAustralia sponsored the Churchill Community market, and had an information stand on the project facilitating many good conversations with locals about the project.

## **Community Partnership and Engagement**

### ENERGYAUSTRALIA COMMUNITY HUB

August 2024 saw the opening of the Morwell Community Hub at 228 Commercial Road in Morwell Victoria. The hub is located in the Latrobe Valley, midway between the Yallourn and Jeeralang/Wooreen sites in Morwell.

The EA Community Hub builds on EnergyAustralia's solid reputation in the local community and provides EnergyAustralia with a dedicated community engagement space that provides for:

#### **Display Area**

• Information and interactive displays regarding EnergyAustralia's local energy assets and projects such as Wooreen and the Yallourn transition program.

### **Community & Group visits**

• Hosting of community group visits.

#### Customer

• The provision of customer service support for local EnergyAustralia account holders on every Wednesday .

#### **Project workspace**

• Provision of a workspace for project teams such as the Wooreen Energy Storage System Project.

#### Reputational

• Enhances EnergyAustralia's reputation in the local community.

A feature of the hub is the "history" wall which timelines the history of EA and its predecessors in the local area. This is complimented using historical photographs and imagery used throughout the facility.



EnergyAustralia Morwell Community Hub 228 Commercial Road

### Surrounding Lands

### **Morwell Gun Club**

The Morwell Gun Club has successfully moved from Old Melbourne Road to its new location southeast of the Mine, off Marretts Road. EnergyAustralia has been instrumental in assisting the club with this transition, supporting the creation of a new lease, installing perimeter fencing, planting a vegetation screen, building a car park, and carrying out significant earthworks to prepare the land for the trap layouts. The club also secured two rounds of State Government funding to construct new clubrooms and enhance the shooting range. The club, which specializes in Down the Line Clay shooting, now features four trap layouts that can accommodate 20 shooters at once.

In addition, the club was selected to host the Commonwealth Games, which was ultimately canceled. However, the State Government has committed to building some of the proposed legacy infrastructure, including two new Olympic trench layouts, with construction planned for 2025. These improvements will help position the club as a premier shooting destination, making it the only Olympic trench shooting facility in Gippsland and offering aspiring athletes the opportunity to take their skills to the next level



Eastfield: Overburden Dump

# Safety

The 2024 Health, Safety & Wellbeing performance for Yallourn PS improved in comparison with 2023. Yallourn executed 2 major outages again in 2024, of which the second outage ran into January 2025 as planned.

In total, the site worked 1,866,653 hours during 2024, this is an increase on the previous year (1,470,692).

In comparison with 2023 we had 2 less recordable injuries in 2024. 11 recordable injuries were reported: 6 LTI's, 3 RWI's, 2 MTI's. Whilst these statistics are disappointing, none of these injuries were life altering, the workers made a full recovery and returned to full normal duties.

First Aid treatments reduced to 104 from 131.

Reporting of Near Misses / Hazards improved greatly in 2024 compared to 2023;

Near Miss reports increased to 131 up from 63, Hazard reports increased to 334 up from 189.

TIFR: 12 Month rolling average record of Total Injury Frequency Rate is tabled below. The rate for 2024 was 5.89 against a target of 2.83, this represents an increase in comparison to 2023 (4.11). Unfortunately we had a poor start and finish to the year but had a period of 5 months at the back end of the year where we didn't have a recordable injury



**KPI achievements:** 

1205 Safety Conversations were completed against a target of 1012.

365 Manager, Team Leader Walkdowns undertaken against a target of 138.

# Safety Cont.

The 2024 Health, Safety & Wellbeing Improvement Plan (See below) was rolled out in January 2024 and had a completion rate of 100%, an excellent result. This will lead to Yallourn continually improving and to be a safe place of work.

Objective		Objective	Actions		Due	How measured?		Status / Comments	
				Date	Target				
	σ	Informed,	Develop and implement a safety award initiative program into	Chris K	27/12/24	Program developed and implemented.	100%	Completed	
	8	aware and	BAU.	Gayle M		Delivery of an award once a week			
	ple	making safe		David B		Supply report monthly at LTSM			
	Ű	choices	Reinvigorate daily pre-start for RALL day to day maintenance	David B	31/5/24	Daily prestart program developed & implemented	100%	Completed	
			like we do for major outgres to be implemented	HoN	ONOLY	Elect wide program considered	10070	Compiona	
			like we do for major outages to be implemented.	Eddie E		Pecords maintained			
			Reaklate for each trade discipling for quick references on	Chrick	20/6/24	Workgroup formed	100%	Completed	
			Bookiets for each trade discipline for quick references on	Olivia	30/0/24	Paskist material identified	100%	Completed	
			safety & quality. Fitters = Good practices on flange	Zaka		Booklet material identified.			
			management, snim management, torque settings etc. Rigger	Zeke		Booklet developed and implemented.			
			= Sling practices & SWL with angles etc. So on for each trade	<b>5</b> .15	00/11/01		1000/		
			Identify, review and update overdue Health and Safety	Eddie	30/11/24	Update and Review 120 documents.	100%	Completed	
			documentation. (Structured program)			Supply report monthly at LTSM		-	
			Contractor Management Process revamp.	Peter S	27/12/24	Workgroup formed.	100%	Completed	
				Emma		2024 Plan developed and actioned.			
All go home						Supply report monthly at LTSM			
safe and well	5		Portable ladders (Extension, A Frames) is required, consider	Zeke	31/6/24	Identify utilised ladders.	100%	Completed	
everyday	<u>q</u>	Eliminating	replacement with Portable Platform ladders.			Review and develop plan on compliance.			
	Ð	hazards &				Campaign on non-compliance.			
Stop the work	ac	reducing risk in	Gravitational Project – Implement gravitational hazard	Peter S	30/4/24	Create education piece.	100%	Completed	
for safety	ø	our workplace	identification workgroup (BAU & Outages).	Tony M		Update Yallourn site induction.			
			Mandate use of drop protection items i.e. Lanvards. (Including			Stock levels are adequate and maintained			
Home Safely			visitors)						
			Eve safety program - Prevention, housekeeping, education.	Peter S	30/4/24	Workgroup formed.	100%	Completed	
			PPE	Eddie		Plan developed and actioned			
	~	Everybody	Continue and enhance the Safety Circle 2024 Strategic Plan.	Andrew F	27/12/24	Strategic plan reviewed / updated / implemented.	100%	Completed	
		makes a	The plan is based on key principles of visible leadership, risk	Chris K		Supply report monthly at LTSM			
	Ξ	choice to stop	management employee engagement and governance	Shane C		coppi, report monany at 210m			
	ø	work for safety	management, employee engagement and geremance.						
		work for safety							
	E.	Doing what it	Injury Management Process Training for leader team.	Peter S	31/5/24	EA SME Engaged	100%	Completed	
	Ba	takes to make	Injury Management and Expectation training for supervisors	Eddie		Identify suitable education materials.			
	dei	Zero Harm		Kim W		Training delivered to relevant personnel.			
	us.	happen							
	Ð								
					1				

Key Focus 2025:

- Mental Health Strategy for Yallourn transition to closure;
- Establish a Health Monitoring program.;
- Develop a Hanger register, incorporate evidence of inspections and work undertaken;
- Develop a Barricading process, including register;
- Develop a Hazardous Manual Handling (as defined by OHS Legislation) hazard/risk register and develop control measures;
- Develop a psychosocial hazard/risk register and develop control measures;
- Completion of 2025 Health & Safety Improvement Plan;
- Develop Training program / plan and complete training of workers accordingly;
- Continuous improvement projects Gravitational Hazards, Hazard Identification & Risk Assessment, Hands & Feet protection.





Dropped Objects Session

# Wellbeing Events

In 2023 the nurses ran basic health assessment days to encourage employees and contractors to participate in a basic health review unfortunately we found that the uptake of our basic health assessment days was poor, despite demand for this service and extensive advertising of this service. In 2024 we decided to expand our basic health assessment program to extend beyond a few single days where additional nurses would run basic health check clinics that was accessible to all site personnel to include access to health checks for all employee's year round with a booking. The Yallourn basic health check program now runs yearlong to encourage employees to access this service and get the most health benefits of having access to the nurse on site. At any time during the year if an employee wants a basic health assessment completed all they have to do is call or email the nursing team with their request, book in a time that is convenient for both parties and attended the occ health checks. In 2025 we will continue this model for basic health assessments and continue to promote this service across the site and encourage all employees to take advantage of the service giving them more personal power over their health outcome into the future.

In September 2024, the Yallourn site held bacon and egg breakfast day on R U OK day for all employees and contractors on site to encourage people to check in with each other and meet/catch up with people from other areas across the site that they otherwise would not often see. This initiative proved to be very successful and the feedback from all who attended was overwhelmingly positive. At these events we highlight the importance of checking in with each other not just on this one day but every day or if they pick up on changes in a fellow employee's mood or behaviors. We acknowledge that we all face challenges in our lives at times and that often the simple act of asking someone if they are ok and simply listening to what they have to say can have significant positive impacts on a person's/people's mental health. We also highlighted that the positive benefits of checking in with a workmate extends to both parties involved in the conversation as often we feel a sense of reward/value by simply providing support to a fellow human being. This area will continue to be a focus in 2025 as we move closer to the closure of Yallourn power station which is undoubtably going to increase personal challenges to individuals as they navigate finding alternative employment in a region with limited job growth and opportunities



R U Ok? Pack for employees



Eddy, Kerry and Tony cooking up a storm





Thanks to Rotary Club of Moe stepping up to lending a hand cooking

# **Targeted Programs**

In 2023 the nurses ran basic health assessment days to encourage employees and contractors to participate in a basic health review unfortunately we found that the uptake of our basic health assessment days was poor, despite demand for this service and extensive advertising of this service. In 2024 we decided to expand our basic health assessment program to extend beyond a few single days where additional nurses would run basic health check clinics that was accessible to all site personnel to include access to health checks for all employee's year round with a booking. The Yallourn basic health check program now runs yearlong to encourage employees to access this service and get the most health benefits of having access to the nurse on site. At any time during the year if an employee wants a basic health assessment completed all they have to do is call or email the nursing team with their request, book in a time that is convenient for both parties and attended the occ health checks. In 2025 we will continue this model for basic health assessments and continue to promote this service across the site and encourage all employees to take advantage of the service giving them more personal power over their health outcome into the future.

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# Health and Wellbeing

Good health benefits everyone. By implementing robust health programs and strengthening employee engagement, EnergyAustralia will create a happier workforce which, in turn, will lead to increased productivity and potentially decrease employee absences.

At EnergyAustralia, we understand that the individual needs of employees requires a broad range of health and wellbeing initiatives.

People have different requirements in terms of their health and wellbeing at various stages and phases of life, changing day-to-day and year to year. The Yallourn site has the additional challenge of ensuring our health and wellbeing program considers the additional support.

EnergyAustralia employees will need our programs to provide to ensure a safe and successful transition to site closure.

The diversity of people at our site means we need to try to facilitate and deliver a board range of activities and resources to help improve the health and wellbeing of every employee.

EnergyAustralia takes an integrated approach to health combined with occupational safety and injury prevention, all encompassed in our health and wellbeing initiatives to enhance worker health and prevent work-related injuries and illness.



Raising Money for Australia's Biggest Morning Tea



### **Occupation Health Centre**

2024 saw a total of 453 presentations to the Occupational Health Centre, a 19% decrease in overall visits when compared to 2023. In 2023 there were 163 occ heath presentations compared to 138 new occupational health injuries at work in 2024 which is a decrease of 15.3% which is a fantastic result especially considering Yallourn completed one and a half major outages in 2024.

Foreign bodies in eyes continue to be the most common presentation to the Occupational Health Centre with 51 presentations in 2024, a decrease of 34% when compared to 2023. This was followed by cuts, bruising and abrasion injuries which accounted for 30 presentations to the occ health centre or 21.7%. Trips and falls accounted for 8 presentations or 5.7%, struck by objects accounted for 6 presentations or 4.3%, burns accounted for 4 presentations or 2.8%, electric shock accounted for 3 presentations or 2.1%, Sprains and strains accounted for 21 presentations or 15.2% and other uncategorised presentations 15 or 10.8%.

29 employees were referred off site for further treatment to various facilities such as the emergency departments of local hospitals, GP clinics and optometrists. This is a decrease of 30% from 2023.

The nurses who have completed the Immunisation Course can give immunisations, including influenza and pre overseas vaccination requirements. Other services are removal of sutures, wound management and education for surgical wounds or wounds obtained at home, diabetic management and blood sugar testing, non-fasting cholesterol checks, CO monitoring, blood pressure checks and a variety of other preventative health measures.

The hearing test program which is a part of the induction process saw the occ health centre employees conduct 276 hearing tests for the year 2024. This is a decrease of 16.8% which is largely due to the fact that we have caught up on the missed hearing tests during the covid pandemic when Yallourn suspended hearing tests to reduce the risk of covid spreading. There was a decrease in presentations for home injuries or non-work-related injuries for the 4<sup>th</sup> year in a row, with presentations for home injuries decreasing by 48%.

Despite seeing a consistent decline in the number of home injury presentations to the occupational health centre over the past 4 years site feedback indicates employees are more aware of the services available at that the Occupational Health Centre. The Yallourn Health and Wellbeing Team's core goals for 2025 will be to continue to provide increased education to work groups across the site, promoting the capabilities and services available and offered to all employees by the Occupational Health nurses.

We hope to see further decreases in work related injuries and an increase in the number of preventative health attendances in 2024, as the Occupational Health Team strive to be proactive in the promotion and education of preventive health and to maintain the mental and physical health of all employees in the coming year.

### **Emergency Services**

Estate Services fire and rescue responded to 248 incidents on the Yallourn power station and Brown Coal Mine site for 2024.

Of these 68 were Fires reported via Simplex alarm or the 3333 emergency number, 161 were false alarms caused by various actions including weather / dust, hot works and plant start up just to mention a few.

We had 14 medical, 2 Recues and 3 HazMat incidents.

Estate Services participated in 6 Emergency exercises for 2024, these are listed below

July – Station and mine evacuation exercise.

September - Mine fire exercise

December - RTL Corporate Office – Fire response and evacuation Exercise.

December - Part 7A Exercise - Bulk Fuel oil spillage into Yallourn Mine and subsequent supply chain issues.

December – Medical Exercise involving a person being hit by and Elevated work Platform.

December – Hazmat exercise – Mine over height

Estate Services Trainers completed 23 training courses for the previous 12 month for both the Station And Mine they consisted of a mixture of Fire, Bunker lifeline and fire warden training sessions.

Estate Services also completed 3 first aid course for Station And Mine.

As part of the Estate Services skills maintenance, all ESO's completed site based CPR/LVR training, Gas Test Atmosphere training and Dangerous Goods Hazardous Substances courses.

Estate Services grade 2 ESO's completed Supress Urban Fire and Drive under operational conditions as part of their Cert 3 in Public safety (Fire fighting Operations) course, after consultation with a 3<sup>rd</sup> party training provider all ESO's now hold the qualifications to be grade 3 ESO's.



Fire Training

# **Yallourn Transition**

EnergyAustralia is determined to demonstrate that coal-fired power can exit the market in a way that supports our people, the community and customers. This update outlines steps we are taking to support our employees and look for opportunities for the site to support the community.

### Supporting the Yallourn workforce reach their goals

With the launch of the Yallourn Transition Program in November 2022, the program has now moved to the implementation phase where employees are engaging in the program and commencing various training activities and accessing support.

Through the program employees have the opportunity to create Individual Transition Plans setting out their transition goals including identifying potential future employment, training or other support needed for a successful future. 2024 saw further take up of range of services under the program as follows:



EnergyAustralia continues to engage with a range of industries about potential employment opportunities for employees post closure, as well as support for our suppliers to pivot their businesses based on the future demand of the region.

#### **Re-imaging the future of Yallourn**

As we prepare to close the Yallourn power station in mid-2028, EnergyAustralia are committed to honouring Yallourn's legacy and want the future of the site to be part of supporting the region's transition to new economic opportunities, creating jobs, as well as providing recreational and environmental amenity.

Fundamental to the realisation of any future opportunities is ensuring all land is safe and stable, which can only be achieved with the creation of a lake. In addition, the rate at which the lake is filled will determine the timing of land becoming available for future uses. EnergyAustralia is open to exploring all credible opportunities to best utilise the land to deliver outcomes for the region for generations to come.

### EnergyAustralia Environment Review Committee (ERC) Report of Independent Chairman 2024 Year

The EnergyAustralia Yallourn Environment Review Committee met four times during 2024, including a tour of the Mine operations and visiting the new accessible EnergyAustralia Yallourn Community Hub in downtown Morwell.

ENERGYAUSTRALIA YALLOURN is committed to transforming the Yallourn site into a landscape that enables ongoing prosperity and amenity for all through collaborating with business, government, communities and custodians of the land.

The key focus for EnergyAustralia Yallourn in its Declared Mine Rehabilitation Plan is a demonstration that the Yallourn mine will be rehabilitated to a safe, stable, and sustainable landform. As part of the plan, risk assessments have been undertaken over three phases; an internal focus, a technical focus and external focus on risks. Of the 197 different risk scenarios identifies and reviewed by EnergyAustralia Yallourn there was only one extreme risk identified regarding a "do-nothing" scenario with the Morwell River diversion. It is expected that as the water levels begin to rise and the site is exposed to greater weather events, there was a greater risk of failure of the Morwell River diversion if EnergyAustralia Yallourn does not make changes to the engineering structures. Most of the risk scenarios were considered low with 47 medium, one high and one extreme.

EnergyAustralia Yallourn has drafted a Rehabilitation and Closure Policy to communicate their commitment and methodology on how to achieve its Rehabilitation and Closure Vision to the key external stakeholders.

The periods considered within the Declared Mine Rehabilitation plan is;

- Pre closure is 2024-2028 before the mine and the power station shuts,
- 2029-2030 during closure and decommissioning of equipment, building and site roads,
- 2031- 2040– active rehabilitation including major earth works,
- 2041-2050 a period of monitoring and measurement, and
- 2051 Relinquishment where EnergyAustralia Yallourn has been able to demonstrate that the site is safe, stable and sustainable and that it could withstand post mining land uses.

In terms 2024 mining operations, there was a target of digging 12-13 million tonnes of coal and 4.8 million m3 of overburden material. The 2024/25 summer should be the last season of overburden over-height work with that particular workforce able to transfer over to begin early rehabilitation works. Following the 2023 overburden slip which led to the dewatering of the pond at the overburden dump, the longer term action was to relocate the dewatering ponds away from the overburden dump area enabling it to increase the area's dryness. During 2024, a key focus project was the installation of a new pump station, leading to greater coal coverage.

While EnergyAustralia Yallourn had a slightly below average rainfall during 2024, there was sufficient rain fall in January, April and July to improve raw water quality. pH levels remained quite stable and well above the licence allowance. Turbidity levels continued to trend in the right direction whilst the most difficult time to treat turbidity was winter. Once EnergyAustralia Yallourn commenced mine rehabilitation works, there was a sharp improvement in the raw water quality of the Fire Services Pond. EnergyAustralia Yallourn does not discharge this water directly out of the site as they discharge it to the floc pond, where it is treated again, to become cleaner than the river water before it is returned back to the Latrobe River.

During 2024, there was 39.3 ha of planned mine rehabilitation with the 2024 Conservation Management Plan identifying over 12025 plants to be planted and overburden has been stockpiled and be blended over the next three years for reuse in rehabilitation

The Eastfield Extension site, has been impacted by wind causing many of the trees, predominately pines, to have been disturbed and fallen over, causing a risk. The decision was made to go through the site with a mulcher and remove the pines and debris. As a consequence, all the pine has been mulched leaving some of the selective natives and the site replanted with approximately 15200 plants, largely eucalypt, an over-story species.

The Eastfield overburden dump has been progressed through being shaped and sowed with a seed mix of rye-corn and native seed. The Maryvale field western batter has had highly erosive material and if left untreated would deteriorate further. During 2024, dozer work created a 3:1 slope which makes the batter safe for the tractor to operate on and do seeding. Currently topsoil is carted over to the site and seeding is planned for Autumn 2025

### EnergyAustralia Environment Review Committee (ERC) Report of Independent Chairman 2024 Year Cont.

The Yallourn North open cut return water basin batter site has a small area of 0.2 hectares on a steep slope that is eroding and dispersive and EnergyAustralia Yallourn has begun to treat and rehabilitate the site. While the Yallourn North open cut site of 8.2 hectares has been assessed as stabile with weed control to enable the promotion of natives.

The Hernes Oak site has been assessed and weed control has been undertaken.

The fire services pond batter surcharge site had about 200 000 cubic metres of overburden fill put aside in the mine to protect and improve stability caused by the Morwell River trying to push towards the pond. The top of the buttress has been grassed and is well stabilised. EnergyAustralia Yallourn translocated some shore line planting of reeds to the shoreline to improve its stability.

Environmental performance results focused on dust emissions, water consumption, volume and salinity of wastewater discharges, community complaints and licence compliance. During 2024, there was only one non-notifiable incident reported to the EPA regarding potential cooling water discharge to the Latrobe River but investigations determined that it was river overflow returning to the Latrobe River. In February there was one remedial action reported from the former fire training area where AFF foam had been used which contained PFAS contaminates. This site now been remediated by being backfilled with clean materials. The environment improvement plan for the ash landfill extension project was scheduled for completion by the end of 2024.

Dust monitors, located in sites adjacent to EnergyAustralia Yallourn operations, have been operational for 12 months enabling a full year of data. EnergyAustralia Yallourn is considering the addition of more monitors. During the year, EnergyAustralia Yallourn had to rapidly shut down one of units and the dust monitoring data indicates a corresponding higher dust reading, giving an indication of the usefulness of the dust monitoring system. Currently the dust monitors are stand-alone, but EnergyAustralia Yallourn would like to integrate it into control systems data.

During 2024, EnergyAustralia Yallourn completed the Environment and Cultural Heritage audit. The audit included a tour of the scar trees located near Toners Lane. Aboriginal people in pre-colonial times, removed bark for to make canoes, containers, shields and build temporary shelters creating scar trees. The five scar trees are all fenced off and protected. It is important to develop local land user's awareness and understanding of the importance of scar trees, protected and cultural significance sites. All of the scar trees are within either conservation areas or inside the security fence preventing any public access. EnergyAustralia Yallourn are encouraged to continue to engage with the traditional owners, Guanikurnai Land and Waters Aboriginal Corporation (GLaWAC) and ensure they maintain current culturally environment awareness.

ENERGYAUSTRALIA YALLOURN are very proud of its commitment to the local community and as such has opened the Community Hub in Commercial Road, Morwell during 2025. The Hub enables a public space for EnergyAustralia Yallourn where customers can come into the centre, review the history of the Yallourn site and operations, attend community functions and provide a site for the Environment Review Committee to meet quarterly. EnergyAustralia Yallourn have commissioned an art work "One Sky" by Montana McStay, a young Kurnai artist from Churchill and this hangs proudly in the Community Hub.

ENERGYAUSTRALIA YALLOURN conduct two rounds of community grants each year providing much needed funds for community groups, local events and special projects.

As the independent Chair of the ENERGYAUSTRALIA YALLOURN Environment Review Committee, I am honoured to present the 2024 Social and Environmental Performance Summary.

Susan Lloyd (FAICD, MOrgL'ship, BAppSci, GradDipEd) Independent Chair EnergyAustralia Yallourn Environment Review Committee December 2024



# **EnergyAustralia Yallourn Performance**

- Brown coal-fired power station and captive mine
- 1,480MW (2 x 360MW, 2 x 380MW)

- Plant commissioned between 1974 and 1982
- Shareholding of 100% acquired in 2003 with operational control by CLP

PARAMETER	UNIT	2024	2023	2022
1. Operation				
Electricity sent out <sup>(1)</sup>	GWh	7,698	7,687	7,961
Coal consumed	L	118,447	118,275	115,553
Oil consumed	L	419	464	527
Thermal efficiency	%	24.4	24.1	24.0
Equivalent availability factor (EAF) (2)	%	73.8	67.9	66.7
2. Air Emissions				
CO <sub>2</sub> e (Scopes 1 & 2)	kT	10,870	10,997	11,029
SO <sub>2</sub> <sup>(3)</sup>	kT	27.8	14.6	14.7
NO <sub>X</sub> <sup>(3)</sup>	kT	9.7	9.6	9.7
Particulate (Total) <sup>(5)</sup>	kT	5.3	5.3	4.9
3. Water				
Water Withdrawal	Mm <sup>3</sup>	27.6	28.6	28.7
from marine water resources	Mm <sup>3</sup>	0	0	0
from freshwater resources	Mm <sup>3</sup>	25.95	26.87	26.93
from municipal sources	Mm <sup>3</sup>	1.67	1.73	1.78
Water Discharged	Mm <sup>3</sup>	21.217	21.337	22.073
treated wastewater discharged to sea	Mm <sup>3</sup>	0	0	0
treated wastewater discharged to freshwater bodies	Mm <sup>3</sup>	19.953	20.119	20.879
wastewater discharged to sewerage	Mm <sup>3</sup>	1.26	1.22	1.19
Water Reused / Recycled	Mm <sup>3</sup>	0.47	0.47	0.54
4. Environmental Compliance				
Regulatory non-compliance resulting in fines or prosecutions	No.	0	0	0
Licence limit exceedance & other non-compliance	No.	1	1	2
5. By-products & Waste Management				
Ash produced	kT	206	206	207
Ash recycled / sold	kT	0	0	0
Hazardous waste <sup>(6)</sup>				
produced	T (solid) / kl (liquid)	58/177	58 /177	58/177
recycled	T (solid) / kl (liquid)	1/175	1/175	1/175
disposed	T (solid) / kl (liquid)	58/2	58 /2	58/2
Non-hazardous waste <sup>(6)</sup>				
produced	T (solid) / kl (liquid)	3401 /0	3401 /0	3401 /0
recycled	T (solid) / kl (liquid)	1058 /0	1058 /0	1058 /0
disposed	T (solid) / kl (liquid)	2346 / 0	2346 / 0	2346 / 0
6. Safety				
Employee - Fatalities	No.	0	0	0
Employee - Days lost / charged	No.	0	0	0
Employee - Lost Time Injuries	No.	0	0	0
Employee - Total Work Hours	No.	402697	401624	400666
Contractor - Fatalities	No.	0	0	0
Contractor - Lost time Injuries	No.	2	1	1
Contractor - Total Work Hours	No.	1186493	1086677	1036796
7. Employee Development				
Employees <sup>(7)</sup>	No.	1116	771	306
Safety, health and environment training <sup>(8)</sup>	Hours	5913	7084	3145

- Notes:
- (1) (2) (3)
- <sup>2</sup> Sent out, with mine. Data aligned with local regulatory reporting requirements. S0<sub>2</sub> and N0<sub>x</sub> data estimated using emission factors derived from plant emissions monitoring conducted every six months. Particulate emissions from power generation and mine sources from 2014. Prior to this from Power Station only.

(5)

(6) (7) (8) Waste categorised in accordance with local regulations. Contractor waste has been included. Full time equivalent. Includes employees and contractors safety, health and environment training.

Air emissions data has been independently verified by Environmental Resources Management Australia PTY Limited. Verification statement is available upon written request.



### More Information

For more information on EnergyAustralia's Social and Environmental principles and practices please visit www.energyaustralia.com.au or call (03) 5128 2000

> Follow us on our Facebook page: Facebook.com/EnergyAustraliaYallourn