Meeting notes

Energy Australia Lithgow CCC

Date	02 December 2019	**Time**	5:00pm – 7:00pm
Chair	Brendan Blakeley, Elton Consulting	**Recorder**	Jacinta Spies
Attendees	Julie Favell, CCC member Jim Whitty, CCC member Robert Cluff, CCC member Jamie Giokaris, CCC member Jill Cusack, CCC member Lauren Stevens, CCC member Aunty Helen Riley, CCC member Romily Webster, Regroup Michelle Blackley, EnergyAustralia Ben Eastwood, EnergyAustralia Greg McIntyre, EnergyAustralia Mick Hanly, EnergyAustralia via call	**Apologies**	Alex Preema, CCC member Clr. Joe Smith, CCC member

Item	Discussion Point
1.	**Welcome and introductions** » The meeting commenced at 5:00pm. » All members updated their visitor's induction pass. » Brendan Blakeley welcomed all participants and acknowledgement the Wiradjuri People as the traditional custodians of the land. » Apologies were noted, Alex Preema and Councillor Joe Smith. » Brendan declared the following interests: > Elton Consulting has been purchased by WSP, a large multi-services company and WSP had a role in developing Ash Dam design for the RDF application. > Brendan is also independent chair for EnergyAustralia's Tallawarra Community Liaison Group. » No other declarations of interests were acknowledged by the CCC members.
2.	**Review of notes from previous meeting** » Brendan called on comments on previous meeting notes. There were no additional comments. » The meeting notes were adopted.
3.	**Site update from EnergyAustralia** <u>Response to Questions</u> » Will tests be conducted on Chromium 6? > Ben clarified that Chromium 6 does not form part of the standard suite of analytes tested for in groundwater. EnergyAustralia's focus is on the identification of mitigation controls to minimise any impacts to water resources in the catchment from its activities.

Julie noted that she would like to see Chromium 6 analysed. As Chromium 6 is not a natural water-based material, there is concern about the ash (containing Chromium 6) leaching into the groundwater. Therefore, the groundwater and Chromium 6 should be tested.

Jim asked why there was no current testing taking place on Chromium 6?

» Ben noted there are other analytes used in our monitoring program that can provide a very accurate indication of any leaching from the ash repository. This includes Chloride, Boron, Sulphates and other analytes which are typical of brine water. More detailed information will be available in 2020 following the completion of the independent water study.

Greg asked Ben if he could look further into whether or not available samples could be tested for Chromium 6.

ACTION: EnergyAustralia noted that once the independent water study was completed, results will be available via a CCC meeting.

» How will generators be transported from Wallerawang to the Asbestos Repository?

> Ben clarified that the details regarding the demolition, transport and disposal of individual pieces of equipment will be developed by the successful demolition contractor. The regulator has very stringent requirements about how asbestos is transported and disposed of.

> Greg also noted that the asbestos around the containers was encased in the machines in a gel form and wasn't unbound.

Julie asked whether the time taken to find a demolition contractor would hold up Bettergrow?

» Ben confirmed that it would not delay Bettergrow.

Pine Dale Mine Rehabilitation

» Ben talked through the rehabilitation process of Pinedale Mine including:

> The site remains in care and maintenance while future resource utilisation options are assessed.

> Visual bund and area A rehabilitated areas were fertilised in October 2019.

Julie asked whether there were any plans to start operation in Pine Dale and what the future plans were?

» Greg clarified there were no current plans regarding Pine Dale beyond maintenance.

» Brendan noted that as previously stated if there was to be reactivation of Pine Dale this would be discussed with the CCC and there would be a significant planning process undertaken.

Site Safety

» Greg noted there were two first aid treatments, requiring a band aid for a cut.

» The total injury frequency rate continues to trend downwards.

» The safety performance graph and total injury frequency rate is available on p. 11 and 12 of the attached presentation.

Water Management

» Ben noted that Oberon Dam was down to around 30% capacity.

» Total active storage is at 88.8% with:

> Lake Lyell at 90.3%

> Lake Wallace at 97.1%

> Thompsons Creek Dam at 86.4%

» EnergyAustralia releases environmental water through a valve in the dam wall.

Julie asked how much is the flow?

» Ben noted that EA was required to release 0.7 megalitres of water from Lake Wallace throughout the day. However, they generally release close to 2 megalitres of water to ensure the valve doesn't get blocked.

» The Amber alert for Blue-Green Algae in Lake Lyell has been reduced to Green.

Market Update

» Greg talked the group through the graph of Mt Piper in the NSW Market and the Rolling Average Demand graph available on p. 16 of the attached presentation.

> Peak time usage is very prominent, with a minimal low of 150MW from 10am.

Julie asked what is the averaging capacity at peak times?

» Greg clarified that on full load it was 1400MW.

» Greg noted that negative prices were occurring in SA, explaining that was the case when a generator paid to provide power to the market.

» EnergyAustralia has noted that demand for electricity is growing but this is masked by the increased utilisation of rooftop solar systems during the day, which means that overall demand appears flat.

Jim stated that he heard South Australia was just generating 34% of its power needs from solar power.

» Greg noted that SA had a very high proportion of renewables but also has to rely on gas fired power to manage frequency control and the ups and downs of the grid, particularly in the late afternoon when solar starts to decrease and there was a 'scramble' to provide energy.

Julie asked what is the time frame for other states building their solar power capacity over time?

» Greg noted it would take a couple of years.

Robert asked is there risk of the large energy providers not having enough switchable capacity to cope with demand?

» Greg stated that this was an unlikely outcome in the foreseeable future as particularly in NSW the big generators still have sufficient capacity.

Operations (Site) Update – Mt Piper Operations:

» Greg noted that both units are in service now and for the foreseeable future.

» Stockpile levels are recovering with supplies from Airlie augmenting Springvale with two trains a day between 7am and 7pm. As of today, there has been 480,000 tonnes received.

» Greg noted that a couple of outages were forced upon them due to the availability and quality of coal.

Julie asked to confirm that he was saying that the quality of coal EnergyAustralia needed an adjustment?

» Greg confirmed this was the case. There was less energy in, so less energy out with a lot more erosion in the plant equipment. What has been received from Springvale recently, is of better quality.

» The MP2 outage was successful with a large number of people working on site.

4. **Project Updates from EnergyAustralia**

Wallerawang DDR - General Update:

» The DA for Demolition and Rehabilitation has been granted by Lithgow City Council.

» The DA for a new asbestos disposal area has been granted by Lithgow City Council.

» Bettergrow is undertaking due diligence in relation to their proposed repurposing of the site.

EnergyAustralia is in ongoing discussion with NSW Treasury regarding the hand back of the Wallerawang Ash Repository Area.

Update Rail Unloader Project

» Greg talked through the slides available on p. 23 and 24 of the attached presentation about the current status of rail unloader.
  > EnergyAustralia is working to tie the project together and bringing all types of information to the study, including issues around the potential to reopen Kandos line, the potential sources of coal and the potential rail operator. Some of the critical issues around the Rail Unloader will need to be worked through with rail operators before a commitment can be made to construct.

Julie asked how long would this take to complete?

» Greg noted the project will come together within the next few months. Once the decision is made for financial investment, work will begin the day after.

Julie asked to clarify whether it was within the interest of EA to have another supply of coal?

» Greg confirmed this was correct.

Update – Lamberts North Ash Placement Project

» Ben talked through the slide available on p. 26 noting that since the last meeting, no ash has been transported out of Lamberts North.

» Greg also noted that there had been an upswing in demand and increased sales of ash. Additionally, due to the limited supply of ash caused by the Mt Piper unit outages and coal conservation, all the available produced ash was currently being sold and not being stored at Lamberts North. The ash is used mainly in large infrastructure projects.

Update - Water Treatment Project

» The R.O Plant has been commissioned and undergoing a formal acceptance test over a 14-day period.

» There was a hiccup with the salt processing part of the plant where a component needed to be re-manufactured.

Jim asked whether the water from the plant was drinkable?

» Greg clarified that it was not drinkable.

Julie asked if the water from Angus place was due to be connected?

» Ben clarified that water was starting to come through with approximately 8 megalitres a day.

» There is potential for a License Discharge Point on Thompson Creek Reservoir. Due to construction delays of the water treatment plant, a modification was undertaken to transport untreated mine water up to Thompson Creek Reservoir for a two-month period. As the water treatment plant is now operational EA does not need to rely on this modification.

Julie asked if LDP6 was connected to the power plant?

» Ben clarified that the Centennial Coal Licence Discharge Point 6 (LDP6) was not connected to the treatment plant.

Julie ask about the likelihood of water going to the Macphillamy mine, which needs 13L a day.

» Greg noted EA had not received any requests to supply additional water and that it is not theirs to release. This question was better addressed to the Centennial CCC.

Julie stated that the amount of water coming from Springvale and Angus was between 10-13ML.

» Greg noted that nothing has been clarified as to where the 10-13ML of water will flow.

Action: EA to provide an answer about the pipeline and who will receive the water.

Community Engagement

- Michelle noted there was $30,000 available for the second round of Community grants. The successful applicants were all within the Lithgow LGA and are listed on slide 30 of the attached presentation.
- Outside of the grants, money was given for environmental projects, council events and local schools within the Lithgow LGA. A list of the sponsorship recipients can be found on slide 31 of the attached presentation.
- Michelle described some of the work of previous grant recipients:
  - Lithgow Bears Active Kids Sports Program where junior kids were coached on the roles, responsibilities and safety of the game of Rugby League was well received.
  - Centacare Bathurst where disadvantaged families were taught how to cook nutritious meals with a focus also on education and improving life choices for health benefits.
- EnergyAustralia are welcoming 2 mechanical and 1 electrical apprentice into their 2020 apprentice intake.
- In the period August 2019 to December 2019, Mt Piper welcomed 5 new employees, including a young woman as a graduate engineer.
- EnergyAustralia provided industry experience to 3 Vocational Students as part of their studies.

Brendan asked Greg whether contractors involved in the outage were required to provide opportunities for apprentices.

- Greg confirmed that contractors do have apprentices. EnergyAustralia is currently looking to their contract model in order to expand opportunities for small businesses and contractors within the local community to undertake work at the station.

Brendan asked the CCC members whether this was something they supported.

- CCC members indicated they felt a greater emphasis on local employment and skill development was positive on the local area.

Julie asked whether there would be any opportunities for apprentices and local employment with the desalination plant?

- Greg noted that EnergyAustralia were not directly involved in overseeing the construction of the water treatment plant but he understood that Veolia and Lendlease used some local suppliers and contractors to complete the works.

<u>Bush Fire Preparedness</u>

- Michelle outlined the key elements of EnergyAustralia Mt Piper's bush fire management plan This covered how risks are assessed in relation to the nature of the asset such as human settlement, economic, environmental, cultural among other assets.
- Currently, there are 4 types of fire management zones, as explained on slide 37 of the attached presentation.
- Michelle noted that EnergyAustralia's approach to fire management at Mt Piper and surrounding holdings is consistent with the Lithgow Draft Bush Fire Management Plan and the 5 key areas of treatment described within this plan.
  - Ignition management and fire prevention by not leaving metals lying around etc.
  - Calculating the fuel loads in different areas.
  - Staff awareness by ensuring staff are not undertaking risky fire behaviour.
  - Property protection, including emergency management plans and asset locations.
  - Property preparation prior to the bushfire season including fuel hazard assessments and fire trail maintenance. Fuel hazard assessments aid in identifying areas where fuel reduction may be required. This may include routine slashing and vegetation removal as

well as scheduled burning. Fire trail maintenance is part of the land management plan to ensure fire trails within EnergyAustralia lands are identified as internal thoroughfares for strategic access through the property to assets and potential bush fire zones.

Julie asked whether EnergyAustralia has government support and a level of priority given that it is a company that generates electricity?

» Michelle noted that TransGrid regularly check with EnergyAustralia to ensure risk is kept to a minimum. However, with additional support it is unlikely there will be more than there is for the rest of the community.

Julie asked how the community would be alerted?

» Brendan clarified this was the responsibility of the RFS.

5. **Projects in focus**

Coal – Future of Mt Piper Fuel Supply

» Greg noted EnergyAustralia will continue to encourage local mining where possible.

» Securing Mt Piper's future fuel supply is likely to be a multipronged process involving a number of projects and studies that are being conducted in parallel. A number of these are still in the information gathering and executive briefing stage.

» Greg noted that key to this was the establishment of a rail unloader so that coal could be provided from a number of sources. Firstly, we need to ascertain potential sources of coal supply and then what work needs to be done on the railway lines to those sources.

» A project framing workshop was held on November 25 to bring all the parallel activities under a single co-ordinated project, and within the organisation defined roles, responsibilities and timeframes for these various activities.

» Greg noted that Mt Piper as Australia's most efficient coal fired power station has a key role to play in supporting the transition to a clean energy future over the remaining 20 years of its life. Through projects such as the turbine upgrade, and if approved, the RDF fuel steam generation project, we can continue to innovate and minimise greenhouse gas generation as we transfer to renewables and new technologies.

Julie asked to clarify that this was the future plans for Mt Piper?

» Greg confirmed this was the case. Mt Piper continues to operate as the most efficient coal fired power plant in Australia. EnergyAustralia is a significant purchaser of renewable energy and Mt Piper allows for growth in that business to be supported whilst also maintaining reliability of baseload power.

Mt Piper – Ash Utilisation

» Greg noted there are 5 new potential customers, with 1 looking for 200,000 tonnes of ash a year. This was a real opportunity to decrease the amount of ash being deposited in the ash dams and make the most of this resource for use in concrete, road building and big infrastructure projects.

» Greg also stated that sometime in the future the ash dams may even be suitable to be mined as a resource.

Environmental Impact Statement Energy Recycling Plant

» Romily noted that the Environmental Impact Statement (EIS) for ReGroup's refuse derived fuel, energy from waste (EfW) plant is complete and in the review process with the Department of Planning, Industry & Environment (DPIE). It is likely to go on exhibition sometime in January 2020.

Jim asked whether there had been any problems so far?

- Romily confirmed there had not been any great problems. It will have 30megawatts of electricity, 100 megawatts of thermal capacity and will require 150,000 tonnes of fuel that will come from household and commercial waste.
- The project at Mt Piper will not be all that different from the Rudersdorf EfW plant in Germany, as seen on slide 48 of the attached presentation.

Julie asked whether the facility will have 24/7 continuous emissions monitoring?

- Romily noted there will be a continuous monitoring system, which will be linked to the control system. If it detects that the sulphur oxide levels are rising, it will automatically inject more lime into the systems and pass on continuous information on the status of the emissions to the plant operator who can take action accordingly.
- Romily stated that the EIS is a 300-page document, with an additional 100-pages of technical appendices.
  - The EIS describes in detail what will be built and the required infrastructure to receive materials as seen on slide 50 of the attached presentation.
  - The benefits of the plant include decarbonisation of the NSW energy supply while ensuring reliability of electricity over the next two decades. Further benefits in regards to renewable energy, diversification, efficiency and the local economy can be found on slide 51 of the attached presentations.
  - The project has been specifically designed to meet the requirements of the NSW Energy from Waste Policy which can be found here: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/epa/150011enfromwasteps.pdf
- The ERP plant will be located in the southwestern corner of the site and the ash placement facility in the northern corner. The map on slide 52 of the presentation highlights the route between the two sites, as well as the access route into the site from Castlereagh Highway.

Jim asked who will be transporting the ash?

- Romily noted it was not yet determined, however we are in discussion with Lend Lease who have the current contract to shift ash on site.
- The EIS provides comprehensive details on the potential environmental impacts of the project. It is recognised that some concerns have been raised by the community regarding the impacts of the project. Some key points in response to those concerns are outlined below.
  - An air quality impact assessment was prepared to assess the potential influence of the project on ambient air quality. The map on slide 55 highlights where the air quality will be impacted. However, the results of the analysis indicate that all air quality impacts were likely to be small and only occur on land immediately adjacent to the Mt Piper boundary.
  - A human health risk assessment was prepared to determine any health risks from pollutants, concluding that there are no acute or chronic health risk issues for workers or residents.
  - Greenhouse gas emissions were assessed ensuring that as the project will substitute coal burning, any greenhouse gases produced will be offset. Over a 25-year period, the project could eliminate the equivalent of over 7 million tonnes of carbon dioxide.
  - A detailed traffic and transport assessment was conducted, proving that rail is not a viable option for a project of this scale. The most suitable route for delivery is the M4 and Great Western Highway and on to the Castlereagh Highway. This will produce an additional 26 to 33 trucks per day, with increase by no more than 1% on the Great Western Highway.
  - A soil and water assessment focused on the management of the Ash Placement Facility. All associated ponds will be fully lined, with higher-risk ash stored in double-lined cells. The assessment concluded there will be a neutral effect on the Sydney drinking water catchment area.

- Further assessments in the EIS are listed on slide 58.

Robert asked if the plant has such benefits why can't it be bigger?

- Romily noted that the size is right for this project. If the steam output from the plant into the power station increases too much it can result in some inefficiencies in the turbine. So, the balance here at Mt Piper is currently about right.

Jill stated it sounds very innovative and a good way of dealing with unrecyclable rubbish.

Rob asked whether bringing materials via rail had been considered?

- Romily noted that for rail to be viable it will need to transport 1 million tonnes a year, which will not be needed by this plant.
- Additionally, if materials are transported via rail, they will be double handled.
- Rail will also be less flexible in taking material from multiple sources.
- Romily noted that in addition to taking fuel from Sydney there was some potential with neighbouring councils in the Blue Mountains, Lithgow, Bathurst and Orange to develop a suitable waste stream from these areas but these discussions are very preliminary.

- To access the EIS, create an account and subscribe to updates from the DPIE website to receive an email when the EIS is released: https://www.planningportal.nsw.gov.au/

ACTION: Romily to inform Brendan when the EIS is on exhibition so CCC members can be updated.

- Romily noted that it is probable that the EIS will be on exhibition for 6 weeks.
- Last week ReGroup held information sessions with the public. In Portland 25 people came along.

6. **General Discussion**

- Brendan noted that the Department of Planning requires a report on the CCC, providing an overview of how the group is functioning and key items of interest for discussion. This is required in the next 10 days and the CCC members are encouraged to share their thoughts.

ACTION: Brendan to add today's meeting to the report plus CCC member's comments if provided.

Jim asked if there will be an ash repository at Springvale?

- Ben noted at this point of time there are no such plans.

Jim noted that the community would like NSW Treasury to advise the community of what it proposes to do with the ash dams if they take them back.

7. **Meeting Close**

- Next year meetings will be held on Monday: 2 March, 1 June, 7 September and 7 December
- Next CCC meeting is scheduled for Monday 2 March 2020.
- Meeting was closed at 7:00pm.

2 December 2019

Energy*Australia* Lithgow Region Community Consultative Committee

Greg McIntyre
Head of Mt Piper

EnergyAustralia
LIGHT THE WAY

Agenda

1. Induction Renewal
2. Welcome and introductions
3. Review of Notes From Previous Meeting
4. Site Update from EnergyAustralia
5. Project updates from EnergyAustralia – existing and planned

   - Overview of the Environmental Impact Statement for Energy Recover Project

1. Projects in focus:

   - Coal

2. General Discussion
7. Meeting close and CCC meeting dates 2020

EnergyAustralia
LIGHT THE WAY

Welcome and Introductions

Review of Notes from Previous Meeting

Response to Questions

EnergyAustralia
LIGHT THE WAY

Response to Questions

Will tests be conducted on Chromium 6?

- Chromium 6 doesn’t form part of the standard suit of analytes tested for in groundwater and is not one of the target analytes of concern.

- EA’s focus is on the identification of mitigation controls to minimise any impacts to water resources in the catchment from its activities.

- More detailed information will be available in 2020 following the completion of the independent water study.

EnergyAustralia
LIGHT THE WAY

Response to Questions (cont.)

How will generators be transported from Wallerawang to the Asbestos Repository? They need to fit under the bridge on Castlereagh Highway & since the generators are bound with asbestos, they cannot be cut – what method will be used?

- The details regarding the demolition, transport and disposal of individual pieces of equipment will be developed by the successful demolition contractor.
- All activities will be required to be undertaken in accordance with existing licences and approvals and RMS requirements in regards to the use of any public roads.

EnergyAustralia
LIGHT THE WAY

Pine Dale Mine Rehabilitation

EnergyAustralia
LIGHT THE WAY

Pinedale Mine Update

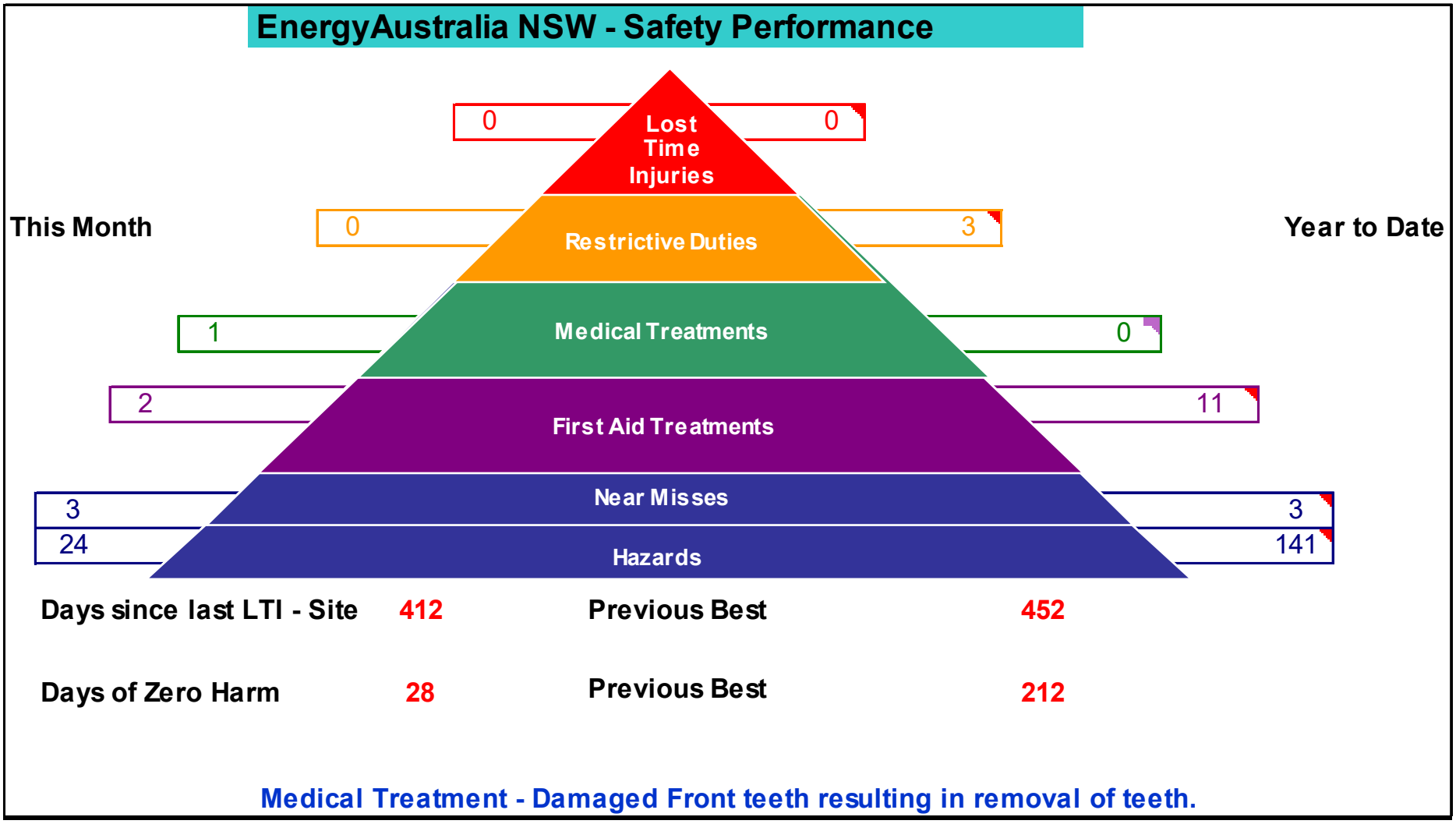
- Remains in care and maintenance while future resource utilisation options are assessed
- Desktop feasibility work continuing
- Maintaining existing mining and exploration leases
- Visual bund and area A rehabilitated areas were fertilised in October 2019.
- The EPA issued a final licence in November 2019 following the 5 year statutory review.

EnergyAustralia
LIGHT THE WAY

Site Safety

EnergyAustralia
LIGHT THE WAY

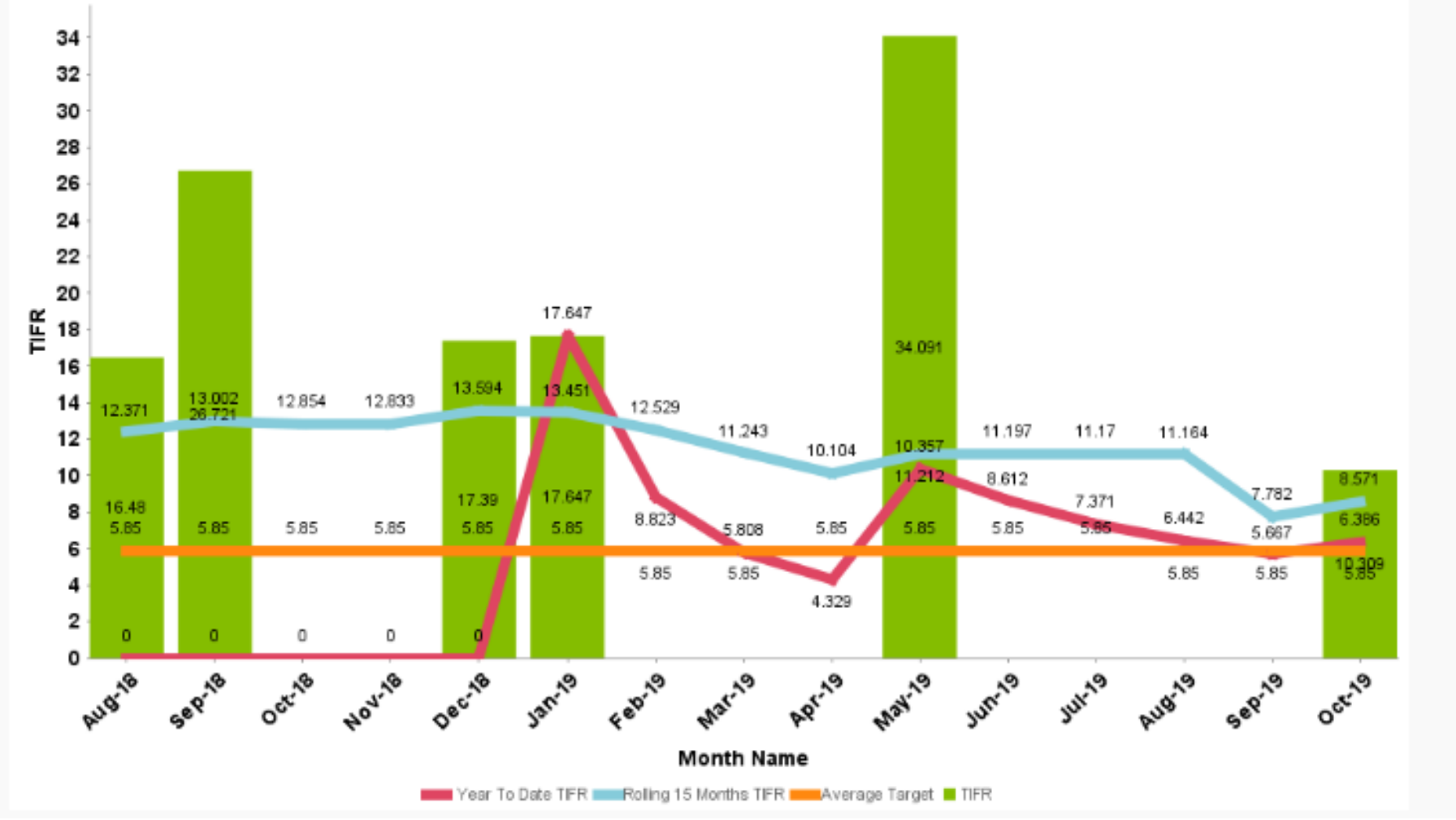
Site Safety – October 2019



EnergyAustralia
LIGHT THE WAY

Site Safety – October 2019

Total Injury Frequency Rate



EnergyAustralia
LIGHT THE WAY

Update - Water Management

EnergyAustralia
LIGHT THE WAY

Update on Water Management

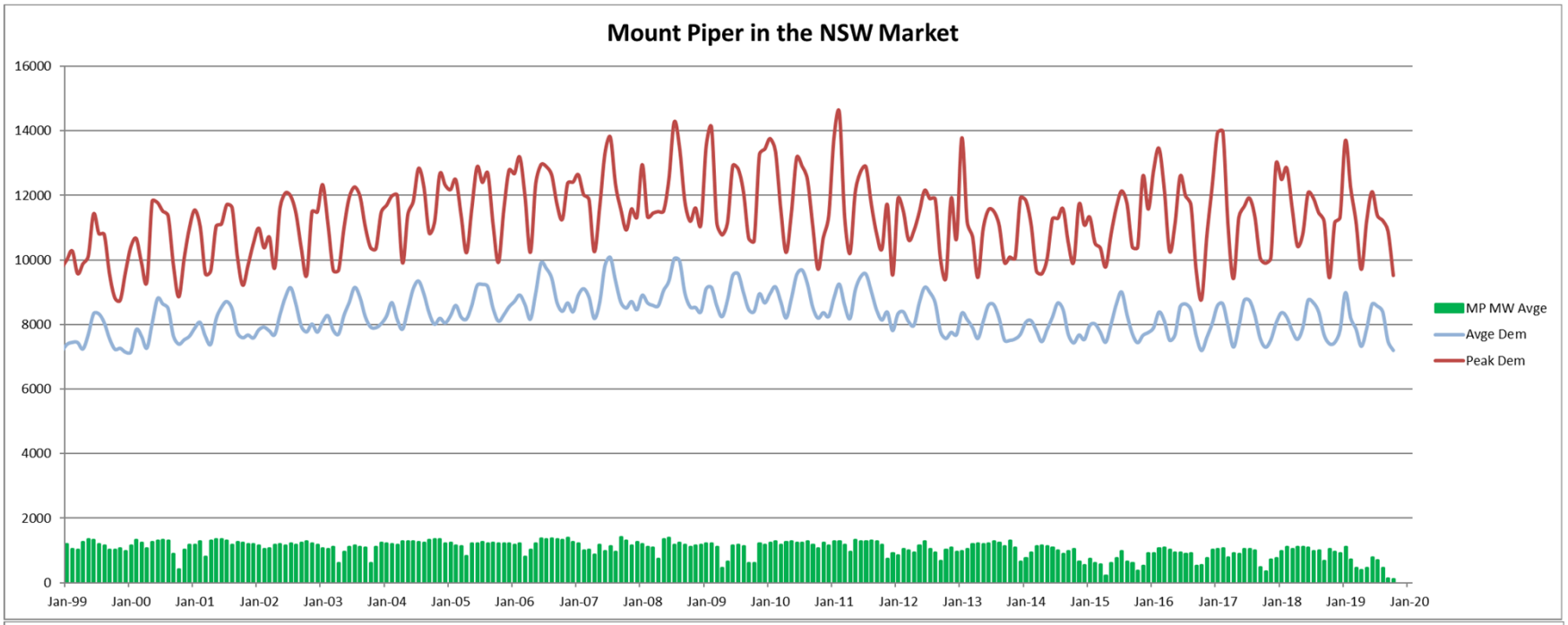
- Oberon Dam level is at 31.6%
- Total Active Storage is at 88.8% with:
  - Lake Lyell at 90.3%
  - Lake Wallace at 97.1%
  - Thompsons Creek Dam at 86.4%
- Lake Wallace has ceased spilling
- Previous Amber alert for Blue-Green Algae in Lake Lyell reduced to Green.

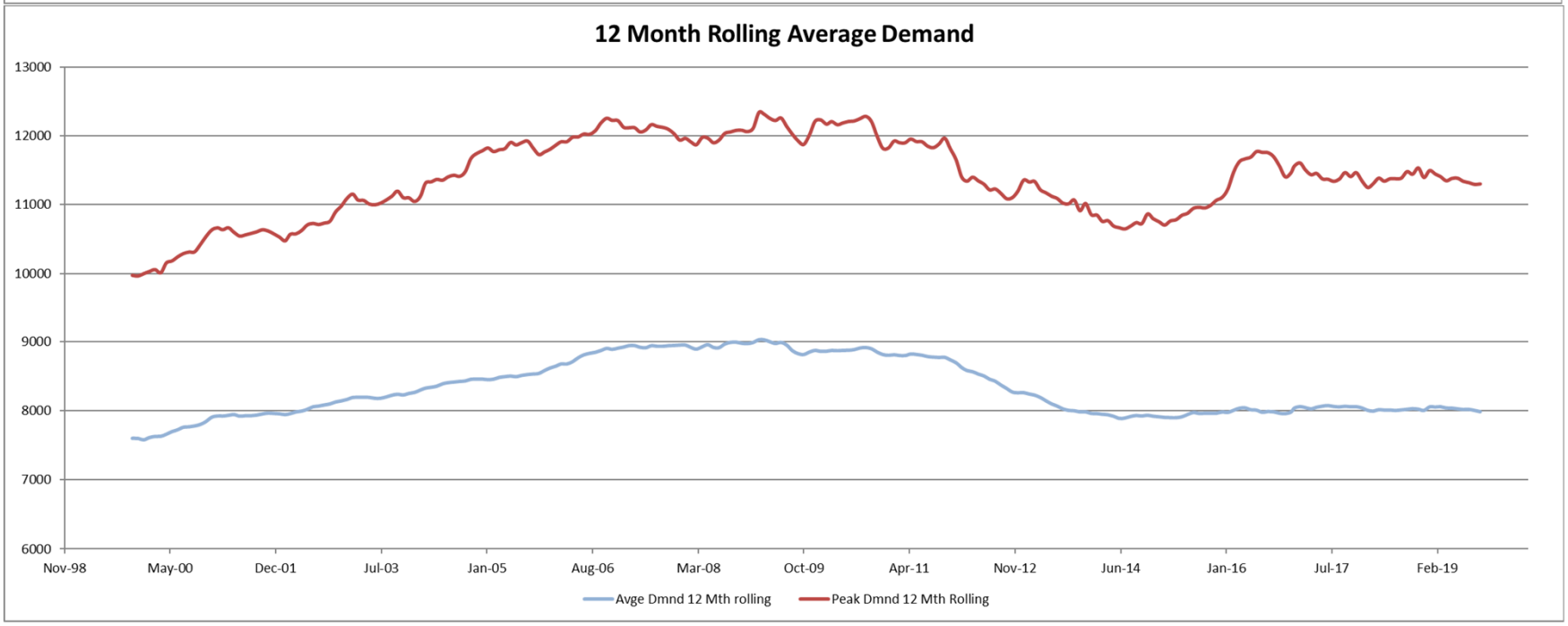
As at August 2019

Market Update

EnergyAustralia
LIGHT THE WAY

Market Update





EnergyAustralia
LIGHT THE WAY

Operations (Site) Update

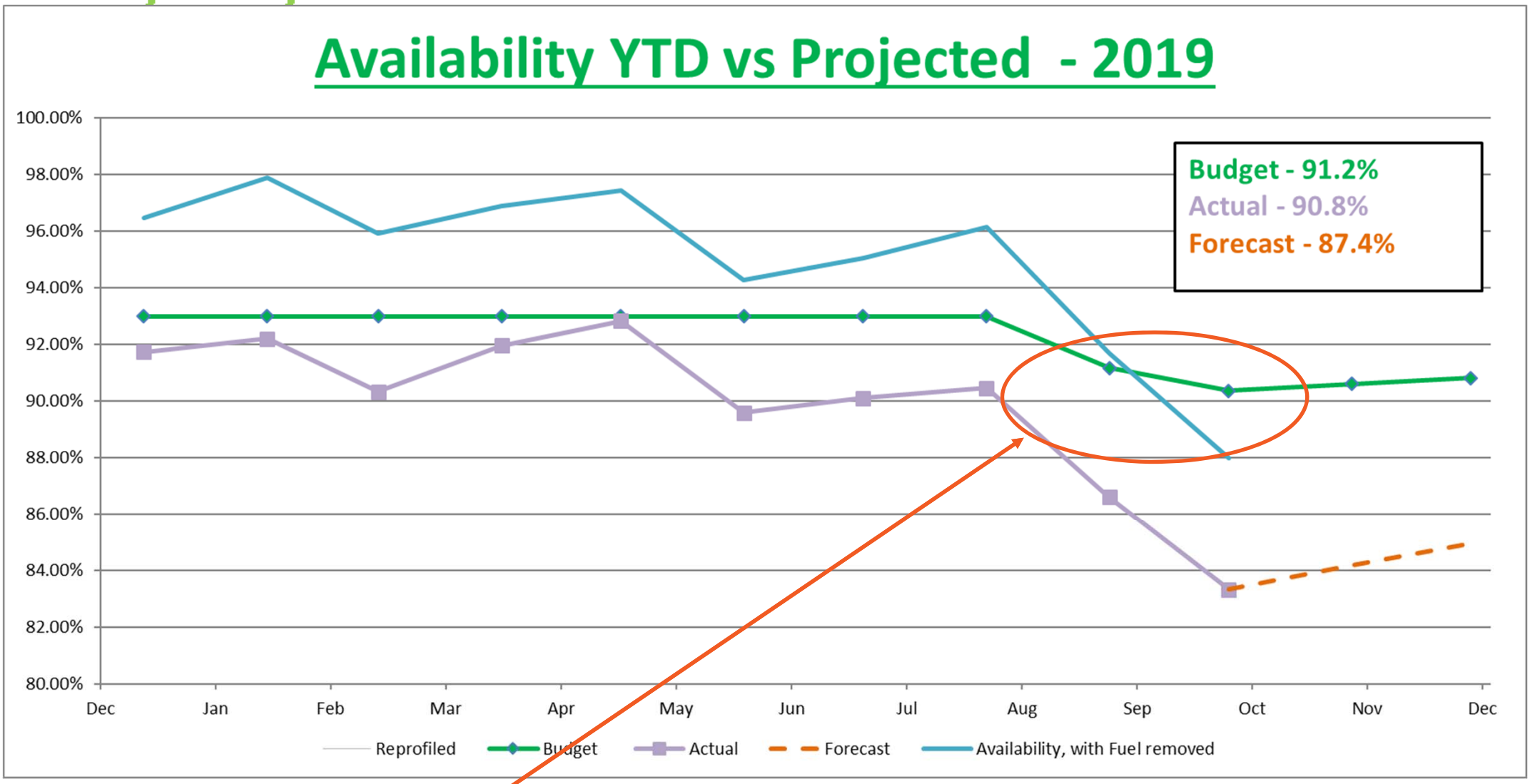
EnergyAustralia
LIGHT THE WAY

Mt Piper Operations

- Both Units in service, and for the foreseeable future.
- Stockpile levels recovering with supplies from Airly augmenting Springvale
- MP2 outage was successful

EnergyAustralia
LIGHT THE WAY

Mt Piper Operations



Impacted by moving the outage, plus two tube leaks.

EnergyAustralia LIGHT THE WAY

Wallerawang DDR

General Update

EnergyAustralia
LIGHT THE WAY

Wallerawang DDR

- DA for Demolition and Rehabilitation has been granted by LCC.
- DA for new asbestos disposal area has been granted by LCC.
- Repurposing
  - Bettergrow is undertaking due diligence in relation to their proposed repurposing of the site (including logistics, recycling and ‘growing media’ facilities) and an agreement is being negotiated
- EA is progressing discussions with NSW Treasury regarding the hand back of the Wallerawang Ash Repository Area.

Update Rail Unloader Project

EnergyAustralia
LIGHT THE WAY

Rail Unloader - Current Status

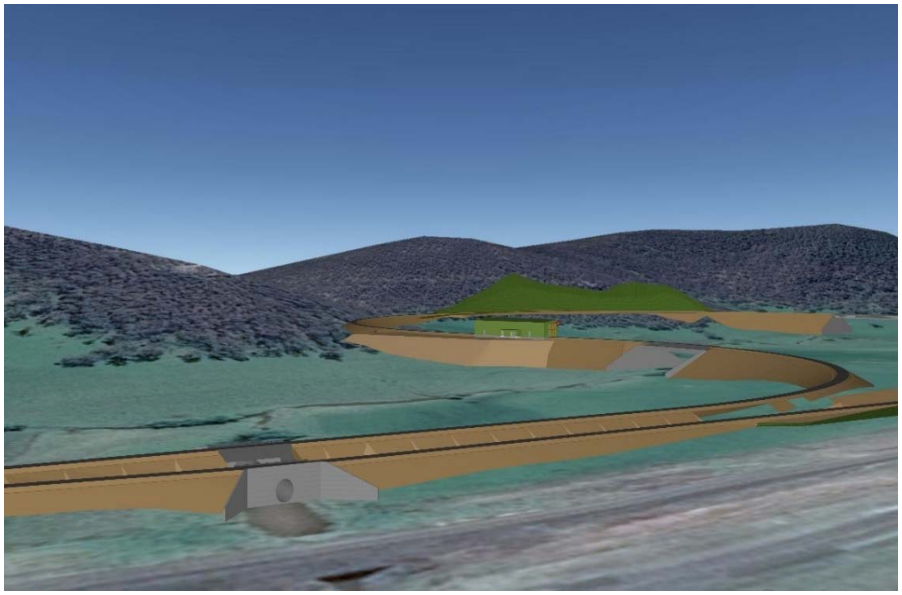
- EnergyAustralia received planning approval for the design modification of the Pipers Flat rail unloader project in January 2019
  - The consent conditions are currently being worked through, including additional ecology and aboriginal heritage studies
- Work on other aspects of the project are in progress
- While EnergyAustralia's preference is to continue to source coal locally, we are assessing other coal supply options
- EnergyAustralia is working with Transport for NSW in relation to the government's feasibility study to reinstate the Kandos-Gulgong line (expected to be finished early 2020)

EnergyAustralia
LIGHT THE WAY

Recap: Modified Rail Unloader Design

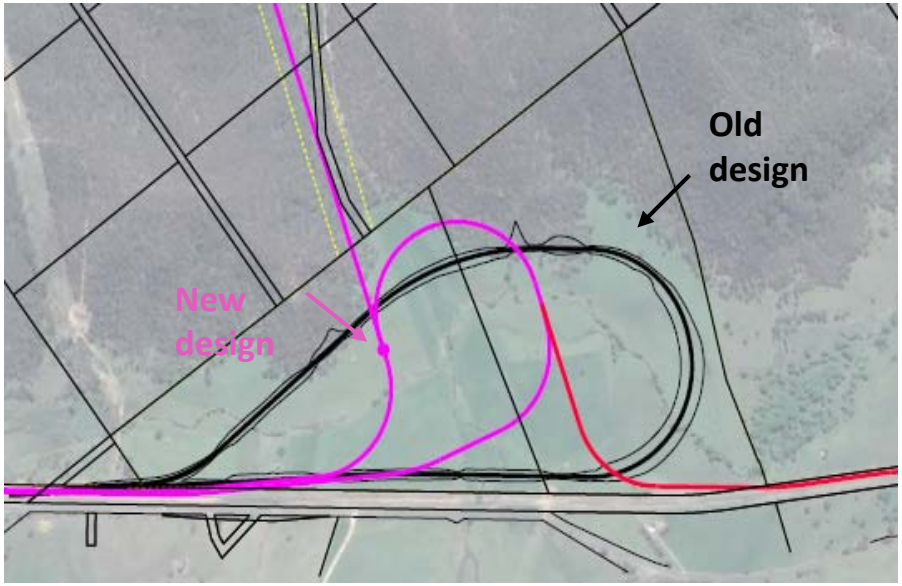
Aerial view

Pipers Flat Road view



The proposed modification includes:

- realignment of the rail line to reduce earthworks and reduce the height of the embankment
- relocation of the rail dump hopper to remove an intermediate coal transfer station and conveyor
- the addition of a second connection to the main rail line and a spur line to provide operational flexibility
- an additional conveyor and rill tower near the power station
- removal of trains provisioning buildings



Update – Lamberts North Ash Placement Project

EnergyAustralia
LIGHT THE WAY

Lamberts North Ash Placement Project Update

- Ash Placement Volume
  - 2019 quarter three volume is 0 tonnes
  - No ash placement within Lamberts North since February 2019
    - No complaints received
    - No incidents recorded
    - Operational Environment Management Plan revised by EA and approved by DPIE 1 October 2019.

EnergyAustralia
LIGHT THE WAY

Update – Water Treatment Project

EnergyAustralia
LIGHT THE WAY

Joint EANSW / Centennial Water Treatment Project

- R.O. Plant commissioned and undergoing formal acceptance test over a 14 day period.
- Salt processing part of the plant under commissioning and will commence it's 14 day acceptance test separately to the above.
- Potential for LDP on TCR riparian.

Community Engagement Program

EnergyAustralia
LIGHT THE WAY

Community Engagement Program 2019

Round 2

- $30,000 was available
- Successful applicants:
  - ✓ Communities & Kids – Pamper Day
  - ✓ Lithgow Information & Neighbourhood Centre – Bowenfels Community Hub Homework Centre
  - ✓ Dymocks Children's Charities – Lithgow Public Library Regeneration
  - ✓ Healthy Harold
  - ✓ Headspace – Mobilising Mental Health
  - ✓ Portland District Motor Sports Club

EnergyAustralia
LIGHT THE WAY

Community Engagement Program

Sponsorship Recipients – August – December 2019

- Lithgow & District Community Nursery
- Barton Park Giant Tree Arboretum
- Lithgow City Council – Halloween Event
- Rydal Show Society
- Capertee Public School
- Lithgow Public School
- Portland Central School
- St Josephs School Portland
- St Patricks School
- Wallerawang Public School

EnergyAustralia
LIGHT THE WAY

Community Engagement Program

Spotlight on Some Previous Grant Recipients

- **Lithgow Bears Active Kids Sports Program**

  Aimed at coaching and teaching junior kids the roles, responsibilities and safety of the game of Rugby League and well as providing fun, social inclusion and health and fitness.

EnergyAustralia
LIGHT THE WAY

Community Engagement Program

Spotlight on Some Previous Grant Recipients

- **Centacare Bathurst**

  Provision of cooking lessons for disadvantaged families, focussing on easy, cheap and nutritional recipes for the whole family. Everything required to cook the meal is provided, including child care. Focus also on education and knowledge acquisition of lifestyle and cooking skills, including how to keep a clean workspace and avoid cross contamination.

  A cookbook is included as part of the program.

EnergyAustralia
LIGHT THE WAY

Employment Opportunities

Apprentice Program

- EnergyAustralia is currently recruiting 3 new apprentices for 2020. 2 x Mechanical and 1 x Electrical

New Employees

- In the period August 2019 to December 2019 Mt Piper has welcomed 5 new employees.
- Various roles have been offered internally for short periods of time to allow for career progression and upskilling.
- We have also welcomed 3 x Vacation Students in various areas to allow them to gain valuable industry experience as part of their studies.

EnergyAustralia
LIGHT THE WAY

Bush Fire Preparedness

EnergyAustralia
LIGHT THE WAY

Site Bush Fire Preparedness

- Energy Australia NSW has a bush fire management plan in place that covers all our sites;
- The plan includes but is not limited to the risk management of the following:-
    - Human settlement assets;
    - Economic asset;
    - Environmental assets; and
    - Cultural assets.

Bush Fire Management Zones

There are 4 zones:

- APZ - Asset Protection Zone
- SFAZ – Strategic Fire Advantage Zone
- LMZ – Land Management Zone
- FEZ – Fire Exclusion Zone

EnergyAustralia
LIGHT THE WAY

Site Bush Fire Preparedness

APZ
Aims to provide an area around a fire sensitive asset in which fire suppression may be safely conducted.

SFAZ
Aim to provide a fuel reduced area to support the protection of assets (either alone or to complement more intensively managed APZs), and are generally located to the west & north west of Mt Piper Power Station.

LMZ
May be allocated to areas in which asset management and strategic fire advantage are not appropriate & enable land management objectives such as ecological burning.

FEZ
May be allocated to areas in which fire is not an appropriate tool for hazard reduction, such as fire sensitive vegetation & fauna habitat sites.

EnergyAustralia
LIGHT THE WAY

Site Bush Fire Preparedness

The *Lithgow Draft Bush Fire Management Plan* (Lithgow Bush Fire Management Committee, 2010) describes five areas of treatment:

- **Ignition management –** Activities to reduce the likelihood of fires being started;
- **Hazard reduction –** Reduction of fuel loads;
- **Education –** Awareness programs;
- **Property planning –** Development of property protection and emergency management plans; and
- **Preparedness –** Ensuring that the property is adequately prepared prior to the bush fire season

EnergyAustralia
LIGHT THE WAY

Site Bush Fire Preparedness

- **Bush fire fuel reduction –** Fuel hazard assessments are undertaken prior to the bush fire season aid in identifying areas where fuel reduction may be required. Mechanical fuel reduction may include routine slashing, and vegetation removal. Fuel hazard reduction through burning may be scheduled in advance; however the timing of burns will be affected by fuel moisture content and availability, weather conditions and access to resources.

- **Fire trail maintenance –** Fire trails within EnergyAustralia lands are identified as internal thoroughfares which allow strategic access into and throughout the property to assets and potential bush fire zones. Fire trail maintenance is scheduled to occur throughout the year and particularly prior to the bush fire season.

EnergyAustralia
LIGHT THE WAY

PROJECT IN FOCUS

Coal – Future of Mt Piper Fuel Supply

EnergyAustralia
LIGHT THE WAY

Future of Mount Piper Fuel Supply – Project in Focus

- Until now, Mount Piper's fuel supply future had a number of projects working parallel, but independently, in the information gathering and executive briefing stage.
  - Rail unloader :
    - Future necessity
    - Options in size and location, understanding that Piper's Flat is approved, and "shovel ready"
  - Future and alternate fuel supplies :
    - local current,
    - local future, and
    - other regions.
  - Rail infrastructure.

EnergyAustralia
LIGHT THE WAY

Future of Mount Piper Fuel Supply – Project in Focus

- 25 November 2019, a project framing workshop was held with :
  - Internal stakeholders and project leads,
  - Internal subject matter experts
  - Current and Future Markets
  - EnergyAustralia's recently appointed major projects team
- Framing workshop was to:
  - Bring all of the parallel activities into a single co-ordinated project.
  - Define roles and timeframes.
  - Under the leadership of Head of Mt Piper.

EnergyAustralia
LIGHT THE WAY

Future of Mount Piper Fuel Supply – Project in Focus

- Mount Piper Coal and Rail Framing Process Identified that:
  - Action is required now to secure fuel for Mount Piper post Springvale's Operations.
  - The answer to Mount Piper's energy security is multi facetted, but not necessarily technically complicated.
  - That Mount Piper has a key role in the transition to a clean energy future
    - In the dark still times
    - In the intraday and seasonal variability of large scale renewables
    - At lower cost to our customers than running gas fuelled peaking plant for extended periods.

EnergyAustralia
LIGHT THE WAY

Mount Piper – Ash Utilisation

EnergyAustralia
LIGHT THE WAY

Ash Sales – 2019 and future

172,800 tonnes sold in 2019

West GateTunnel

Sea Cliff Bridge

5 potential new Customers

200,000 tonnes/yr Repository Reclaimed Ash

8,000 tonnes/yr Water Conditioned Ash

All the Bottom Ash we produce

Potting Mix (trial)

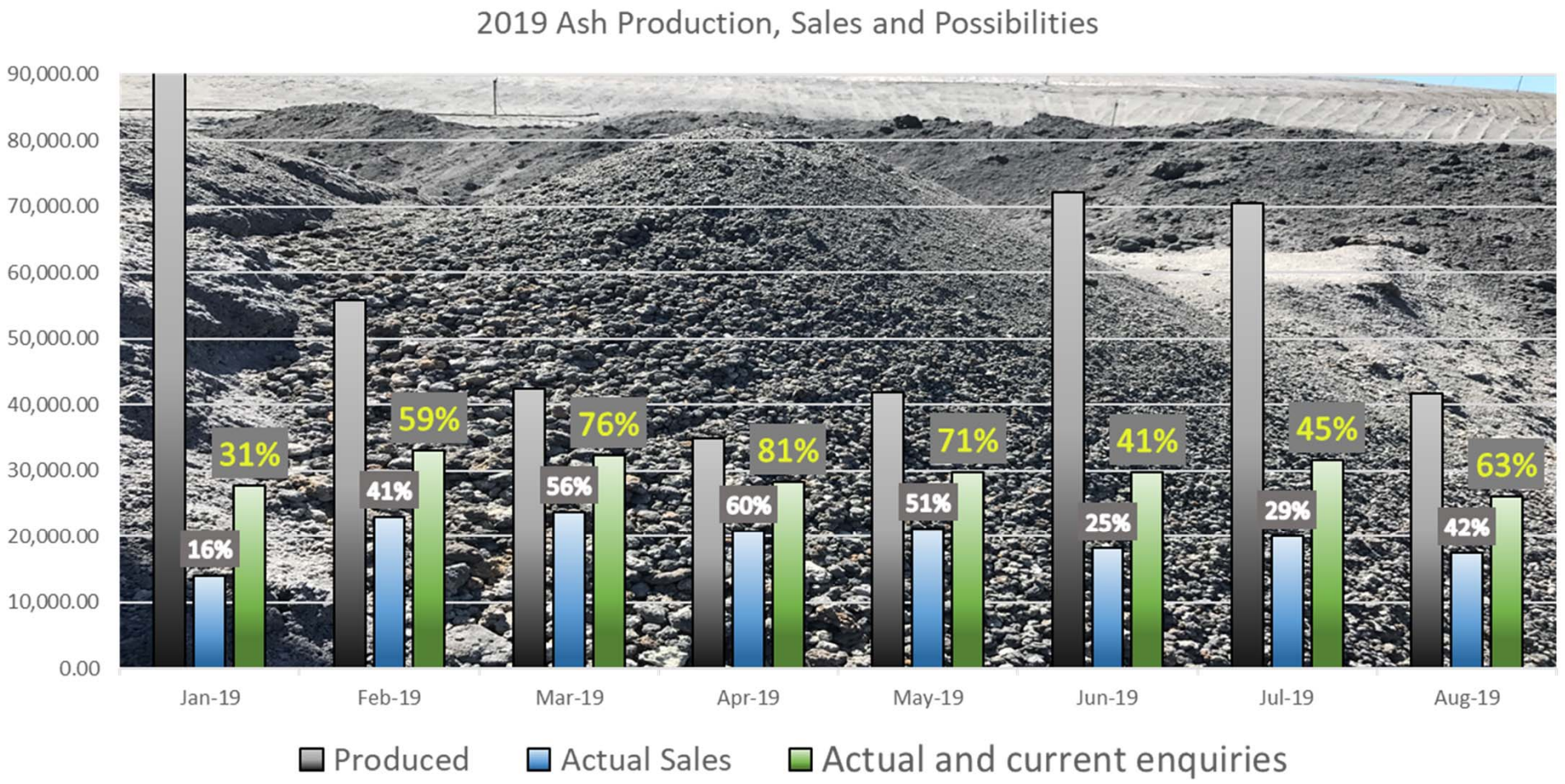
Intelligent Transport Systems

(Cable Bedding)

High Impact Road Base

Ash Sales – 2019 and future

2019 – sales 172,800
what they would have been with new enquiries.



EnergyAustralia
LIGHT THE WAY

Mt Piper Energy Recovery Project

CCC Update

Dec 2019

Re.Group

EnergyAustralia
LIGHT THE WAY

Background

- EnergyAustralia and Re.Group are developing a refuse derived fuel (RDF) energy from waste (EfW) plant to improve environmental outcomes and efficiency of coal usage at Mt Piper Power Station.
- We have completed the Environmental Impact Statement (EIS) for the project and it is in the review process with the Department of Planning, Industry & Environment (DPIE). The EIS will be a public document with full details of the project.
- EfW is a common technology and has been used in many locations worldwide including Europe, US and Asia.
- $170 million project which will produce steam equivalent to 30 MW of electricity

The Rudersdorf EfW Plant in Germany uses the same technology, similar fuel and is of similar size to the proposed Mt Piper ERP.

Re.Group

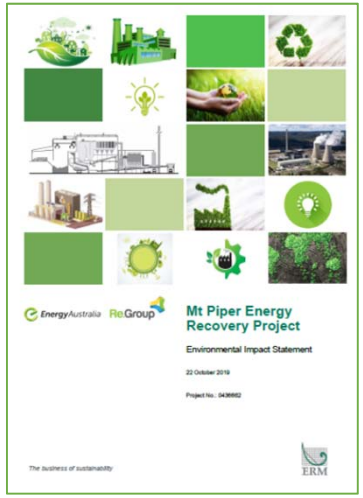
EnergyAustralia
LIGHT THE WAY

Stages of EIS

Gather Background Data → Concept Design → **Initial Modelling** → Review & Discuss Results → Amend Concept Design → Final Modelling → Submission → Public Exhibition → Decision

Explain concept and ask about concerns/need for further information	Discuss draft information and seek feedback on results	Discuss proposed changes in concept	Explain information presented in EIS

We are here



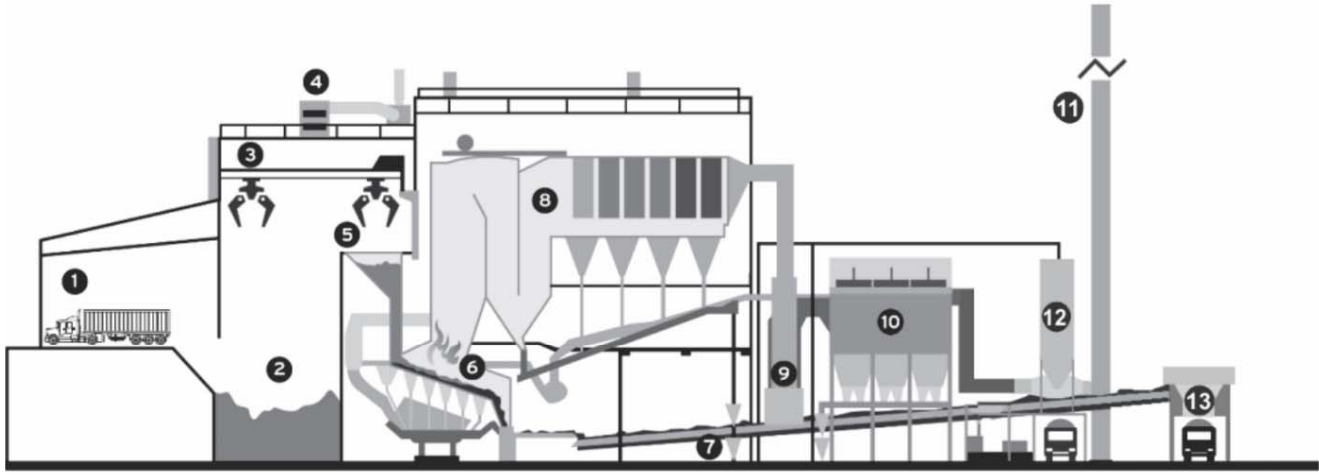
ReGroup

EnergyAustralia
LIGHT THE WAY

The Project

What will be built?

- A dedicated boiler with dedicated flue gas (exhaust) treatment plant.
- RDF receival infrastructure
- Connections to the existing station and other ancillary equipment
- An Ash Placement Facility will be constructed adjacent to the existing ash repository at Mt Piper to store the ash by-products that would be produced from the energy recovery process.



Fuel receiving and storage	Combustion and boiler	Flue gas treatment	Ash and residue handling
1 Tipping hall	5 Feed hopper	9 Dry reactor	13 Bottom ash hopper
2 RDF bunker	6 Grate	10 Fabric filters	
3 RDF crane	7 Bottom ash conveyer	11 Stack	
4 RDF bunker ventilation (for outages)	8 Boiler	12 Residue silo	

Re.Group

EnergyAustralia LIGHT THE WAY

Benefits

- Decarbonisation of the NSW energy supply while ensuring reliability of electricity over the next two decade
- 240,000 MWh per year total production of electricity, of which 1/3 can be classed as renewable energy.
- Diversification of the fuel supply to the station
- 200,000 tonnes of unrecyclable waste diverted away from landfill and reduced economic and social costs to manage the waste
- Improved efficiency of Mt Piper Power Station's energy production
- $3.7 million additional direct spending per year for the local economy
- 300 construction and 16 permanent operational jobs.

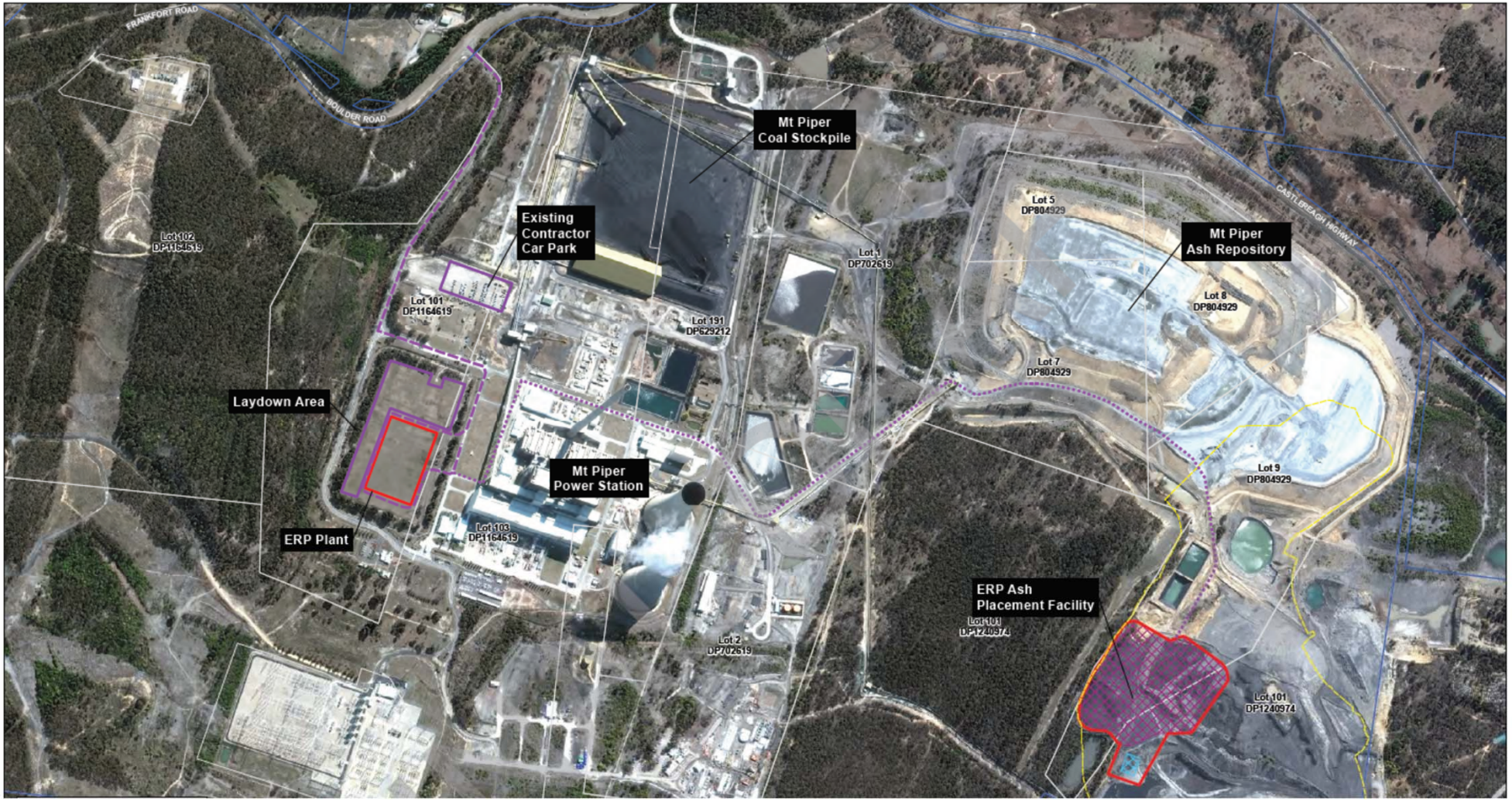
This Project has been specifically designed to meet the requirements of the NSW Energy from Waste Policy which requires '**best available technology**' from around the world to be used.

Energy produced would be sufficient to **power approximately 40,000 NSW homes**, equal to the Lithgow and Blue Mountains Local Government Areas combined.

Re.Group

EnergyAustralia
LIGHT THE WAY

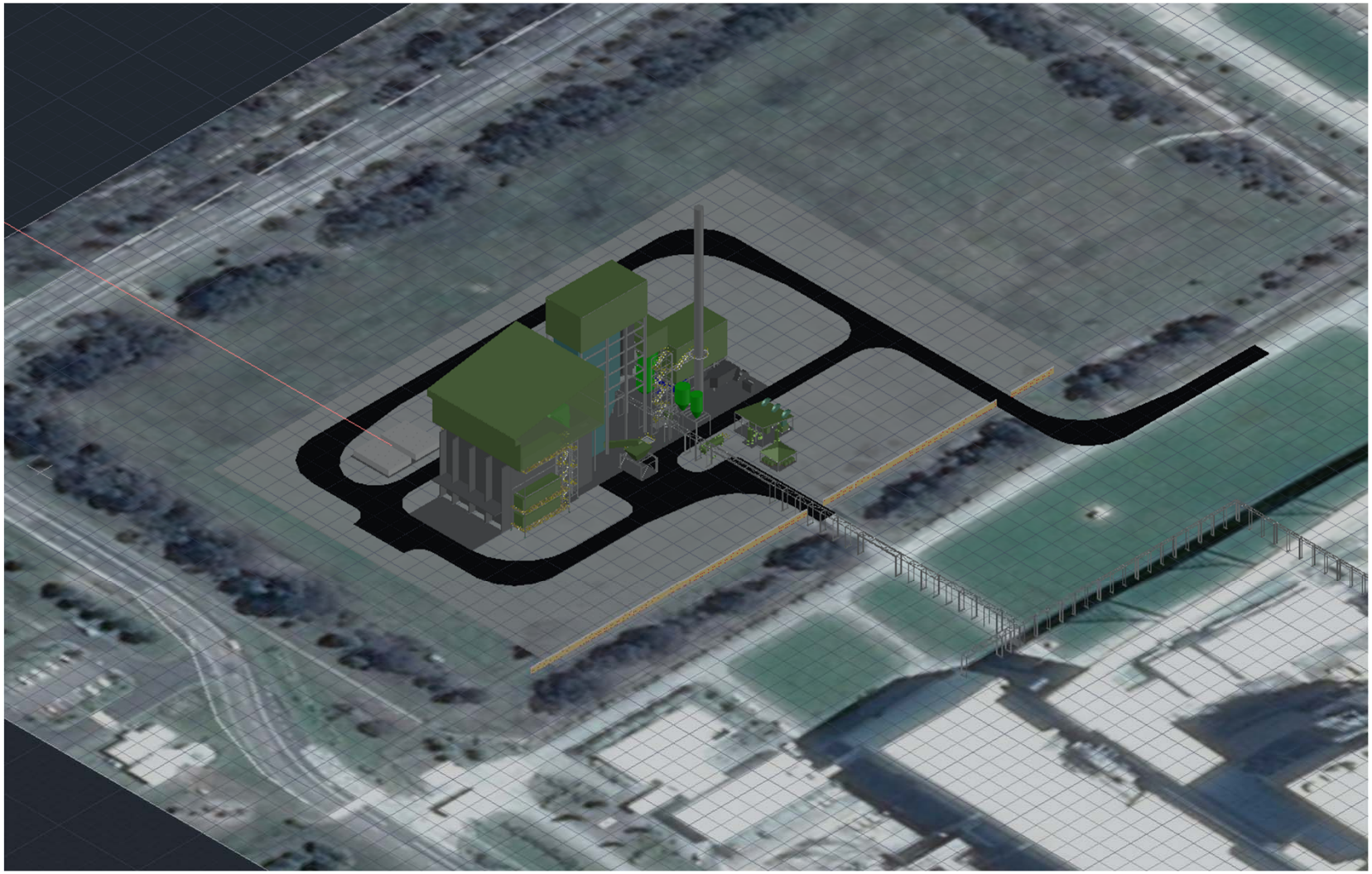
Site Location



Re.Group

EnergyAustralia LIGHT THE WAY

Concept Layout

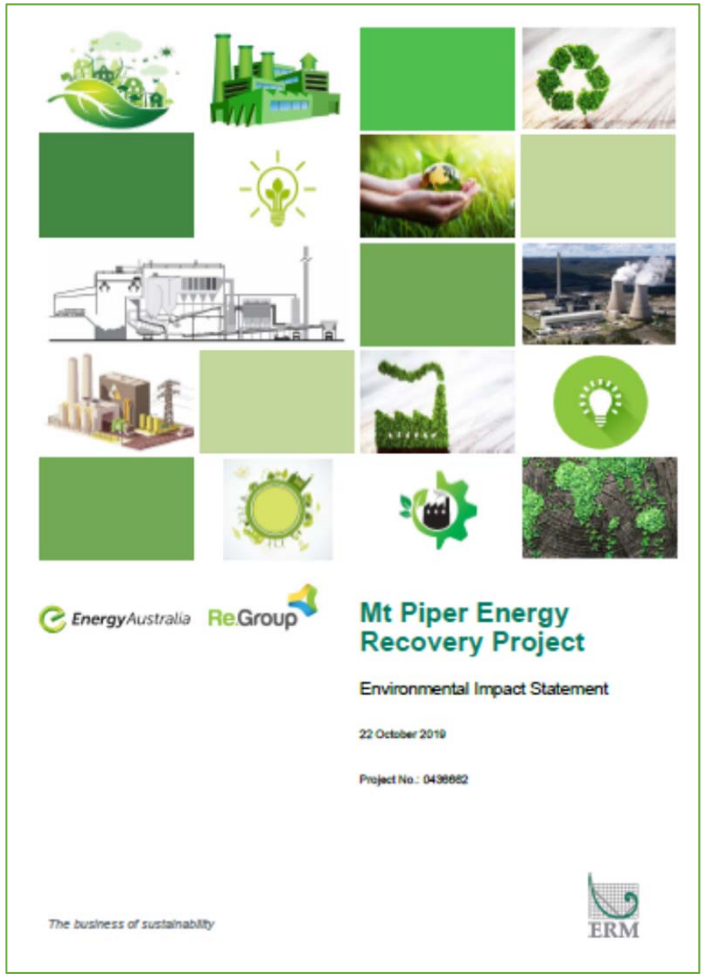


Re.Group

EnergyAustralia
LIGHT THE WAY

Environmental Impact Statement

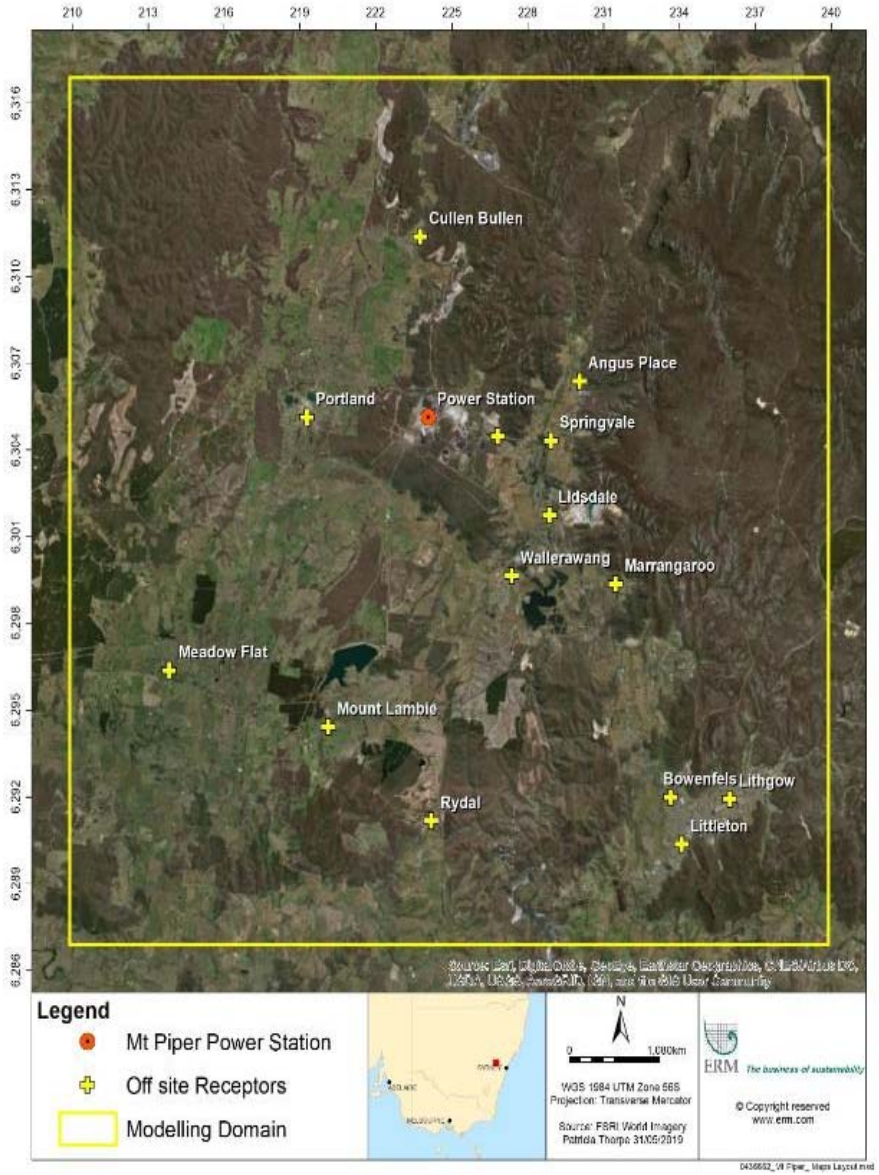
- ERM was commissioned to prepare an Environmental Impact Statement (EIS) for the Project.
- The EIS takes into consideration key public concerns relating to energy recovery and uses the knowledge and advice of specialist consultants to accurately assess the Project's potential impacts.
- This involves undertaking various supporting studies and reports to support the development.
- Specialist consultants and engineers have been engaged to work on the Project throughout the EIS preparation process.



Re.Group

EnergyAustralia LIGHT THE WAY

Environmental Impact Statement



Air Quality & Odour

- An Air Quality Impact Assessment was prepared to assess the potential influence of the Project on ambient air quality, and performance of the proposed technology against NSW EPA air emissions regulations.
- The results of this analysis indicated that **all air quality impacts were likely to be small** and would occur only on **land immediately adjacent** to the Mt Piper boundary.

Re.Group

EnergyAustralia
LIGHT THE WAY

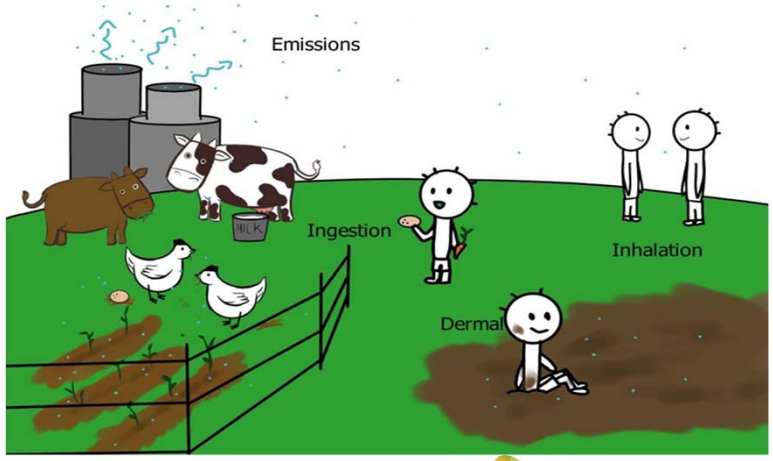
Environmental Impact Statement

Greenhouse gas emissions

- A detailed Impact Assessment has been prepared to assess the greenhouse gas (GHG) emissions that will be produced by this Project.
- Findings show that the Project will substitute coal burning and other GHG-intensive methods of energy production, offsetting any GHGs produced by the Project. In addition, the Project diverts waste away from disposal to landfill, a significant source of the greenhouse gas methane.
- Over a 25-year period, the Project could **eliminate the equivalent of over 7 million tonnes of carbon dioxide**.

Human Health Risk Assessment

- A detailed Human Health Risk Assessment was prepared to determine whether any health risks might result from exposure to pollutants from the Project.
- The assessment concluded there are **no acute or chronic health risk** issues for workers or residents.



Re.Group

EnergyAustralia
LIGHT THE WAY

Environmental Impact Statement

Traffic

- A detailed Traffic and Transport Assessment was conducted.
- Findings show that **rail is not a viable option** for the Project, and no additional road capacity improvements are required.
- The most direct route suitable for delivery of RDF material has been identified as the M4 and Great Western Highway, on to the Castlereagh Highway, and Boulder Road into the Project site.
- Project will contribute an additional 26 to 33 trucks along this route every day. Even at the modelled **worst case of 48 trucks per day**, the traffic is estimated to **increase by no more than 1%** on the Great Western Highway.

Soil & Water

- ERM conducted a Soils and Water Assessment to review water usage and the potential impact on soil, surface water and groundwater.
- During construction phase, erosion and sediment control principles will follow best-practice guidance.
- Each ash stream will require specific management in the Ash Placement Facility (designed in accordance with NSW EPA guidelines).
- Ash Placement Facility and all associated ponds will be fully lined, with higher-risk ash being treated and immobilised for transport before being stored in double-lined cells.
- The Soil and Water assessment concluded the Project will have a **neutral effect** on the **Sydney drinking water** catchment area, which includes the local drinking water catchment.

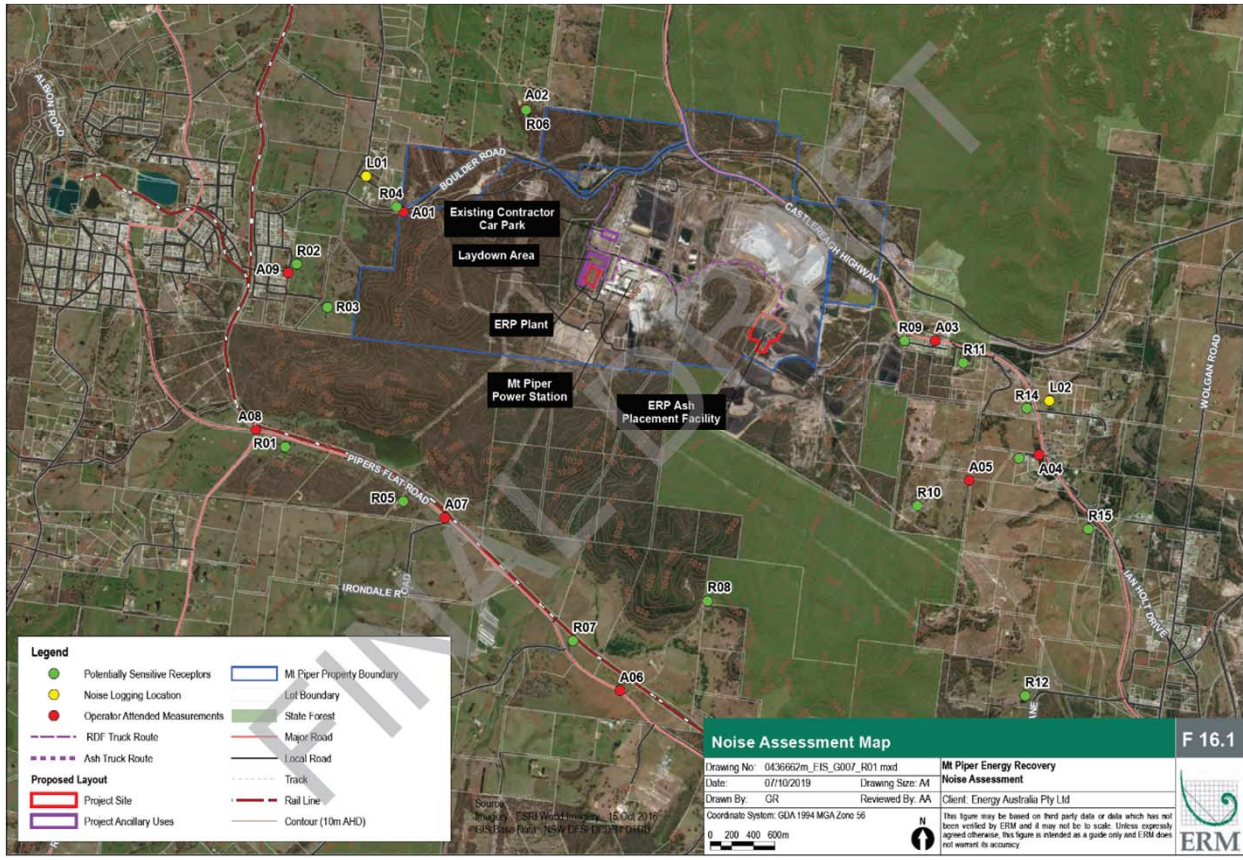
Re.Group

EnergyAustralia LIGHT THE WAY

Environmental Impact Statement

Other assessments

- Noise and Vibration Impact Assessment
- Preliminary Hazard Assessment
- Visual Impact Assessment
- Biosecurity Risk Assessment
- Assessment of the relevant social and economic impacts
- Heritage assessment
- Assessment of bushfire hazard
- Waste management assessment
- Biodiversity impact assessment
- Assessment of cumulative impact with existing developments



Re.Group

EnergyAustralia LIGHT THE WAY

Environmental Impact Statement

ASSESSMENT OUTCOMES

- result in **net reduction of greenhouse gases** compared to NSW average grid electricity and landfill emissions
- result in **no risk issues of concern** in relation to human health exposures
- meet regulatory guidelines in the design of the Ash Placement Facility, **preventing contamination** of land, groundwater and surface water
- **meet all relevant regulatory criteria** for air emissions
- have a **neutral effect** on the **Sydney drinking water** catchment area
- have **no discernible adverse impact** on road network performance or road safety
- result in **minimal construction noise** impacts
- **close to nil probability** of a biosecurity hazard escaping from, or surviving, the Project activities
- **does not pose a risk** to the operations of MPPS
- have **negligible impacts** on the biodiversity, heritage, visual amenity and bushfire risk of the area
- result in **positive economic benefits** to the region

Re.Group

EnergyAustralia LIGHT THE WAY

Community Information

EnergyAustralia Lithgow Community Consultative Committee

- We have briefed the CCC (formerly CRG) regularly throughout the feasibility phase.

Local Government & Agencies

- Lithgow City Council, Blue Mountains City Council, DPIE, EPA, Department of Water, Department of Health, Rural Fire Service, etc.

Special Interest Groups

- Various local environment groups, progress associations, etc have been identified for individual information sessions or information sheets. E.g. Progress Associations, Lithgow Business Chamber, Lithgow Environmental Group, Local Men's Shed & Mt Piper site staff.

Open Day & Open Information Sessions

- An open day for Mt Piper was held on Sunday 15th April 2018, celebrating 25 years of operation.
- A Community Information Day was also held on Thursday 22nd Nov 2018 at the request of Council.
- Community Information Days 22nd-23rd July 2019 (Lithgow, Wallerawang and Portland) and 25th-28th November (Lithgow, Wallerawang, Portland and Hartley).

Thank you