Meeting note

EnergyAustralia Lithgow CCC

Date	7 December 2020	**Time**	5:00pm – 7:00pm
Chair	Brendan Blakeley, Elton Consulting	**Recorder**	Alexandra Krautil, Elton Consulting
Attendees	Julie Favell, CCC member Alex Preema, CCC member James (Jim) Whitty, CCC member Aunty Helen Riley, CCC member Robert Cluff, CCC member Jill Cusack, CCC member Lauren Stevens, Lithgow Council Michelle Blackley, EnergyAustralia Ben Eastwood, EnergyAustralia Steve Marshall, EnergyAustralia	**Apologies**	Clr Joe Smith, Lithgow Council CCC Representative Jamie Giokaris, CCC member Mick Hanly, EnergyAustralia Greg McIntyre, EnergyAustralia

Item	Discussion Point
1.	**Welcome and introductions** » The meeting commenced at 5:10pm. » Aunty Helen gave an acknowledgement of country. » Brendan welcomed all participants and noted apologies. » Brendan referred to the communications that had been sent to members since the last meeting; contact details for the new Kerosene Vale and Sawyers Swamp Creek Ash Dams management team GPM and details of Centennial's Angus Place and Springvale Water Treatment Plant modifications.
2.	**Review of notes from previous meeting** » Brendan called for comments on the previous notes. » There were no additional comments noted. The meeting notes were adopted. <u>Answers to questions/actions arising from September meeting:</u> *Q – Julie: When was it first noticed that groundwater contaminants were entering Neubecks Creek?* » A: Ben responded the water was first noticed leaching from the ash repository on site in 2010 – 2011. This suggested there was possible salt mobilisation but was only on site rather than exiting site. > It was first noticed to be leaving site and influencing Neubecks Creek in 2018-2019. > Refer to p. 6 of the attached presentation for a detailed response offering further historical information and contextual detail. *Q – Julie: asked to clarify that it has taken seven years for the leaching to migrate and it has now entered Neubecks Creek? Have you compared the reading levels in the bore holes to historic readings including downstream of Bore D10?* » A: Ben responded the team have not seen any large concentrations in the current river monitoring, the conductivity is in the order of a couple of hundred micro-siemens. > The team have just installed a number of bore holes for monitoring in addition to the two test bores as part of the groundwater interception project and will have the first results from these in the coming weeks. EnergyAustralia expect the groundwater conductivity to be higher than the surfacewater readings.

- > There are also historic readings from previous groundwater monitoring and the locations of these were mapped in a previous CCC presentation.
- > There are surface and groundwater monitoring locations above and below the ash repository (upstream and downstream) to assess and compare water quality results.

Q – Julie: are we discussing groundwater or surface water in relation to Bore D10?

» A: Ben responded that Bore D10 relates to groundwater . Many of the groundwater bores have decades of historical data.

- > As a part of the independent groundwater investigation an additional 14 monitoring points were installed. A further 9 groundwater monitoring sites have been installed as part of the groundwater interception project. The location of the points between Neubecks Creek and the repositories were shown in the previous presentation to the group.
- > There is also data available in the Lamberts North Annual Environmental Management Plan Report and the Mt Piper Environment Report which includes dedicated groundwater management reports and offers data and graphs of the different monitoring points.
- > **ACTION:** provide link to these plans in the minutes (available above).

Q – Jim: now the leaching has been confirmed what is the timing for a solution?

» A: Ben noted the Groundwater Interception Bore Project will provide the solution and the team are working as quickly as possible to limit potential water impacts.

- > Once implemented the effects of the groundwater interception project will be fairly immediate. As noted the groundwater interception bores were installed last week.
- > The team are putting together a Review of Environmental Factors (REF) which will support the applications for groundwater interception and allow the work to commence. This should be a shorter process than a Modification to the existing Development Application as EnergyAustralia are able to complete the project as a development without consent under State Environmental Planning Policy 55, since it is a response to a pollution issue.
- > EnergyAustralia are looking to complete the REF documentation prior to Christmas. It discusses the project including context, drivers, justification and how the solution will help. This will provide the license and approvals for construction to commence on the solution.
- > In the coming months the team will be preparing for construction and expect to have the project commissioned and operational by May to June 2021 at the earliest.
- > **ACTION:** CCC to be provided with a link to the REF when available.

Q – Group: provide an update on the September 2020 monitoring round of the Bathurst Copper Wing Butterfly.

» A: This question will be responded to through a presentation later in this meeting.

Q – Julie: how much has Mt Piper's Ash Repository increased by over the past two years?

» A: Mt Piper Ash Repository in 2019 had 341,635 tonnes of ash, in 2020 it has 470,657 tonnes of ash. This makes the total over the past two years 812,292 tonnes of ash, with an increase of 129,022 tonnes between 2019 and 2020.

- > Ben noted EnergyAustralia have made improvements to the Repository reporting and will now include Mt Piper Ash Repository data in the Lamberts North Ash Repository slide in the presentation.

Q – Julie: will this combine the repository data together?

» A: Ben: the data will still be reported separately but in the same report, indicating the total amount of brine conditioned ash being produced by the plant and deposited to the ash repositories.

Q – Group: What is happening with the pine trees across the road from Mt Piper? The team have discussed with this group forming a fire break and reducing risk through tree removal in two locations.

- A: Michelle responded the team have not been able to garner a response to date on the tree's removal or reduction and are continuing to follow up.

Comment – Julie: clarified there are two locations impacted, near her property and at the end of James Parade.

- Michelle agreed noting the team have been trying to make progress but have not yet been successful.

Comment – Jim: restated concerns about the pine forest on James Parade. In discussions with the Forestry owners they have suggested that it is not necessary to remove the trees as they are not ready for harvest and pine does not burn. However, the sap from trees compiles into fire balls which shoot overhead and are a severe risk to the houses 20-25 metres away from the trees.

Comment – Rob: agreed noting he has film from last year's fire season of this fire ball phenomenon occurring in the area.

Comment – Jim: the area near Maddox Lane is owned by Centennial and they have cut down some trees to make it safer, however there are still large piles of logs which would cause the same problem if a fire came through.

Comment – group: multiple members noted their concern, as well as that of the broader community, about the upcoming fire season and the management of areas such as the pine trees. There was discussion on the intensity of the fire season last year and notes that although this year has been less intense currently that could change at any time.

- Michelle: acknowledged the group's concerns and noted the team are working to progress management of the pine trees.
- Brendan: tabled a report from Professor Andrew Blakers at the Australian National University which was requested by Julie. The report outlines a proposal for the Calare Renewable Energy Zone and will be appended to the minutes.

Q – Julie: requested a response to the report from EnergyAustralia Head Office and asked why it has not invested in renewables at Mt Piper Power Station given the report.

Noted the report was commissioned by the new local group Lithgow Community Power Projects. It shows Lithgow is in a prime location for renewable investment with excellent infrastructure in comparison to the rest of the state. Lithgow and Goulburn are the two places in Australia that can produce wind, solar and hydro power.

- A: Brendan noted that Greg was going to respond to this question but cannot be in this meeting, so a further detailed response will be provided in the next CCC meeting.
  - **ACTION:** Greg to provide further detailed response to the query in the next CCC meeting.
  - There are currently no wind or solar projects planned for Mt Piper. The Station is critical to maintaining reliable and affordable electricity supply as part of the peak demand system. It offers stability particularly as the broader company integrates intermittent sources of power such as wind and solar into a modern energy system.
  - Mt Piper's priorities are the upgrade of the Unit 1 Turbine and the Energy Recovery Project. More broadly, EnergyAustralia supports 800MWs of renewable energy through solar and wind farm power purchase agreements and the half-owning of the Cathedral Rocks Wind Farm. These are long-term renewable agreements that support the company's goal to become carbon neutral.

Comment – Julie: noted her disappointment, as both a resident and member of the environment group, with EnergyAustralia still not considering renewable energy projects in the Lithgow area. Their parent company are acting all around the world but not here. There is no guarantee the energy recovery project, which is not emissions free, will go ahead. Am aware of the renewable agreements, however they do not provide jobs or produce energy in Lithgow.

Comment – Jim: I'm unsure why we would be looking at renewables at the present time when the plant is currently relied upon for base-load power. Batteries are not yet efficient enough to operate alone with six-minute timeframes; base-load power is needed as a back-up and will remain necessary until technology advances.

Comment – Jill: agreed more research is needed. If the area is looking to increase manufacturing this may not be able to be fully serviced by renewables. There is also a challenge associated with disposing of solar panels and the ugliness of wind turbines.

Comment – Julie: noted battery technology is advancing quickly and offers quite reliable power with amounts to an hour rather than six-minutes. Agreed solar panel disposal is a problem however it is being thoroughly researched to determine a solution.

» Brendan raised the NSW Government's Issues Paper for the 20 Year Waste Strategy, which notes solar panel disposal as an emerging issue and explores opportunities with the circular economy to salvage rare metals and stop toxic substances going into landfill. The Issues Paper is available for review here.

Q – Julie: noted opposition to the Energy Recovery project, as a neighbouring resident and a member of the Lithgow Environment Group. Will EnergyAustralia reconsider its current DA, withdraw the proposal and instead present a renewable project given the entire nation is transitioning with the world?

» A: Ben highlighted EnergyAustralia acknowledged the Lithgow Environment Group's position on the Energy Recovery Project. However, the project will continue to progress through its assessment and determination process.

3. **Site update from EnergyAustralia**

» Steve and Ben provided a general site update, covering a range of topics.

Site Safety:

» Steve noted safety is a key focus, particularly during the current outage.
  > Have had two restrictive injuries this month associated with the outage – one slipped and injured their knee while working on the turbine while the other injured their hand installing large nuts on the turbine casing.
  > Have had one medical treatment related to first aid for dust in eyes. Site has implemented the use of foam back glasses to stop dust in eyes, however this means the glasses drop residue sitting on top when they are pulled off the face.
  > Other than these incidents, it has been a very safe outage working with over 1000 additional people on site a day.

» The total injury frequency rate graph indicates the site is not performing at its best but is still in line with industry standards.

» Refer to pp. 11 – 12 of the attached presentation for the safety performance and total injury frequency rate graphs.

COVID Update:

» Steve provided an update on COVID-19 management on site, noting Mt Piper has invested a huge amount into managing COVID-19 impacts.
  > Although the first wave of infections was driven by returning overseas travellers, the second was overwhelmingly in Victoria with community transmission.
  > This second wave of community transmission was representative of the risk the disease poses to Mt Piper.

» The site has adopted a policy of assessing risks above legal requirements, particularly relating to the outage. This responded to concerns from contractors and the community to manage COVID-19 with an influx of workers.
  > The team determined going above and beyond government mandates was in the best interest of site as well as broader community safety.
  > As an example, while Government policy allowed a permit for workers to remain quarantined outside of working hours but attend site as soon as they entered NSW, outage personnel from

Victoria were required to quarantine for an additional five days rather than attend site, due to the risk of exposure during their transit between Melbourne and Sydney.

- All protocols were designed to reduce risks to site and the community as much as possible and centred around reducing the possibility of transmission in the workplace.
  - Since the advent of COVID-19, EnergyAustralia have been managing social distancing and hand hygiene, as well as work from home orders where possible.
  - If a team member is sick, there is a business continuity team who meet for 10-15 minutes multiple times per week to complete quick contact tracing on site and determine if there are additional requirements, cleaning etc.
- The outage offered additional challenges due to the increased amount of people on site and required some changes to protocols.
  - As an example, the team needed to increase the occupancy of lifts on site to six people to efficiently complete work, but risk assessment showed the need to wear masks in the lift at all times and install four additional temporary lifts on site.
  - It was interesting to see the 'outage flu' did not occur this year. Usually with many people flying from various parts of the country and working together in close quarters there is a flu that occurs two to three weeks into the outage works. The team are taking the lack of 'outage flu' as a sign that their management techniques such as hand hygiene, social distancing and masks are working.
- The site team will continue to consider COVID-19 management into the future, even with cases decreasing in Australia, and do not expect a return to pre-COVID protocols.
  - If COVID-19 can be classified as a compensable injury in the workplace, EnergyAustralia could be assessed as negligent and face prosecution should an outbreak occur. This would force an expansion of focus to all communicable disease transmission in the workplace.

Q – Julie: do the lifts on site have recycled air? What is the process for this re: COVID-19?

- A: Steve: the lifts on site do not have air conditioning.

Q – Julie: with the physical work involved in the outage, has the work been restricted and has this extended your schedule?

- A: Steve: the NSW rule of four-square metres per person is strictly followed on site. However, if outage work requires close quarter activities a task-based risk assessment is completed.
  - The outage duration has not been extended but there has been an additional six per cent cost.
  - A large amount of pre-work was completed with identification of bottle-necks, such as installation of the additional lifts, to minimise disruption to timeframes.
  - Management techniques were also in place for the contractor's village of offices, meal rooms etc.
  - As an example of risk assessments, under COVID-19 regulations a vehicle is classified as a premise, meaning only one worker is allowed per car. This puts an additional risk on walking around with more heavy equipment on site. It is up to the team leader to complete such risk assessments and determine the safest overall approach.
- Michelle: there have been no COVID-19 cases on site which is a big success. The team have completed over 200 risk assessments, with team meetings as Steve noted to discuss these and a considerable number of team members have been tested due to doctor's direction.

<u>Pinedale Mine Purple Copper Butterfly update:</u>

- Ben provided an update on the Pinedale Mine locations of the Purple Copper Butterfly (PCB) habitat as requested at the last CCC meeting.
  - Pinedale mine has three PCB monitoring sites that were monitored for many years under the requirements of the mine's federal approval while it was active and have been monitored voluntarily by EnergyAustralia since mining activities ceased in 2014.

- The PCB has a symbiotic relationship with a species of ant and the bursaria plant which is quite unique.
  - The ant tends and protects the PCB larvae and the larvae produce a sweet honeydew that the ants eat. The PCB feeds exclusively on the bursaria plant.
  - If this process breaks down, the symbiotic system is likely to collapse.
  - The PCB is a very tiny species of butterfly, about the size of a five cents piece.

Comment – Julie: noted the bursaria is a rare and specific plant, it needs an altitude over 800m and there is a small window of flight, only about two weeks, for the PCB.

- The sites that have been monitored for the last two years were burnt during the Gospers Mountain Bushfire last year and the bursaria plant was completely burnt out. However, it is likely it will return over the coming years.
  - PCBs had been located during the Spring surveys at monitoring site PCB1 until 2020. During the Autumn and Spring 2020 surveys, no PCBs or their larvae were located.
  - The 2020 March survey showed the burnt and damaged bursaria plants recovering.
- Recent surveys in the broader area did find adult PCBs flying at Neubecks Hill, two kilometres south-east of the mine site, in habitat that was only partially burnt.

Q – Julie: asked to confirm the sites are burnt out completely? Will there be replanting? It is very disappointing to have lost this unique eco-system.

- Ben: confirmed currently the sites are burnt out, however there is evidence of the burnt and damaged bursaria plants recovering. There will not be replanting.
- DPIE visited the PCB monitoring sites several times this year as part of the Threatened Species Recovery Program. They have completed weed control and will continue to monitor the site, with a hope for recovery.
  - EnergyAustralia have ceased monitoring of the PCB whilst the mine remains in care and maintenance and will support the DPIE team and other regulatory agencies in this task. Any recommencement of mining activities will result in the reinstatement of the monitoring.
  - The cessation of monitoring has been endorsed by the Department of Agriculture, Water and the Environment.

Q – Julie: who is the DPIE Threatened Species team member, I would like to speak with them?

- A: Ben noted he would provide the contact details to Julie.
- **ACTION:** EnergyAustralia to provide DPIE Threatened Species team member contact details to Julie.

<u>Update – Water Management:</u>

- Ben noted EnergyAustralia is currently in a relatively strong position regarding water capacity/availability.
- Oberon Dam level is at 33.04%, this is still low but up from the last meeting.
- Total active storage is at 96.0% with:
  - Lake Lyell at 97.4%. This is being deliberately dropped to complete maintenance work on the Dam.
  - Lake Wallace at 105.3% and continues to spill.
  - Thompsons Creek Dam at 93.6%.
  - There is a Green alert for Blue-green algae at Coxs River below Lake Wallace. Green is the lowest possible rating, meaning algae is detected, but at very low levels.

<u>Market Update:</u>

- Steve discussed the 12-month rolling average demand, operational performance and the availability YTD vs. Projected graphs.

- After the global financial crisis as discussed in previous meetings, there was a decline in energy demand in NSW which recovered in 2014 and has remained quite stable since.
- The 12-month rolling peak demand (red line) remains relatively stable and shows the peak need, while the average demand (blue line) shows the insurgence of renewables in the market; with solar and wind particularly increasing over the past year the average demand is decreasing (blue line).
- Generation and Coal Use were slightly below budget in October. The Auxiliary Energy now carries six mega watts from the Water Treatment Plant so is slightly higher. Availability (amount the plant has been available) should have each unit at 50%. Due to outage MP1 was at 0.00% but MP2 was below budget due to a boiler tube issue which put it out of service for 10 days.
- FCAS Causer Pays Factor relates to a recent change in legislation which came into effect at the end of October and requires every generator to be able to provide frequency control free of charge. EnergyAustralia are working through the resultant market non-conformances as a result of providing Primary Frequency Response with the market operator.
- On Availability YTD, the site had a poor start to the year due to Secondary Superheater failures related to an end of life issue. To manage this, MP2 was repaired to ensure it could carry through summer, but this gave an availability hit at the start of the year. Since that repair have only had one tube leak in October, this was previously occurring every six weeks. After the outage the team expect to have a stronger 2021.

Operations (Site) Update – Mt Piper Operations:

- Steve explained the MP1 Outage is still in progress, with full commercial operation scheduled for the week prior to Christmas.
- Springvale is now delivering strong coal supply – the team changed the way the coal was being mined by moving the Longwall, making the mine more stable and reliable.
  - The stockpile is now back over one million tonnes.
- MP2 suffered a tube leak during the MP1 outage leading to nil generation for a short period.
- The Water Treatment Plant is now fully functional and in its final commissioning arrangements.
  - There were some challenges associated with water and brine management while both MP1 and MP2 were out. Used ponds to store water as required until generation.

4. **Project updates from EnergyAustralia – existing and planned**

Lamberts North Ash Placement Project:

- Ben explained the Ash Placement Volume for January to October 2020:
  - Brine Conditioned Ash to Mt Piper Area 1 – 470,657 tonnes
  - No Water Conditioned Ash has been placed at Lamberts North.
- There have been no complaints or environmental incidents during the past quarter.
- An application is being prepared to modify the Lamberts North development consent.
  - EnergyAustralia are seeking approval to line the ash repositories going forward for the disposal of brine conditioned ash. This proposes HDPE liners, or equivalent, designed into the repositories moving forward to prevent any leaching from site and will represent a large cost commitment and change to how ash will be managed in the future.

Q – Julie: how long is the lifespan of Mt Piper and Lamberts North?

- Steve noted there is not a specific lifespan, it is more a balancing act. Lamberts North extends from the highway to the conveyer and Centennial is still occupying a considerable part of the land.
  - The lifespan is determined by how much ash is placed vs. how much is sold. EnergyAustralia look to sell as much ash as possible to make it useful, the ultimate life is determined by how much is generated, how much is brine-placed and how much is sold to the market.

Q – Julie: does that mean it could be an additional 50 – 100 years until there was a new ash replacement area? Does the government require a certain amount to be reused?

» Steve highlighted the lifespan will depend on the elements noted above, however ash and dust reuse are increasing. Ultimately expect ash to become a resource.
  > Ben: there are commissioned target levels from the Government for reuse. Lamberts North has a 40% reuse target and Mt Piper a 20% target. This is an area we expect to see change over the next couple of years, with the additional brine from the Springvale water treatment plant, additional volume needed and the lining expectations.
  > Steve: approximately 20,000 tonnes goes into the market.

Comment – Julie: it does sound like an expensive direction for a private company with the lining etc. It is good news if it can be re-utilised.

Community Engagement Program:

» Michelle highlighted the Community Grants Round 2 recipients:
  > Lithgow Aged Care – Picnic area for residents
  > Lithgow District Community Nursery – Purchase of whipper snipper
  > Lithgow District Junior Cricket Association – Sun shelters
  > Mary MacKillop Today – Financial Wellbeing workshops
  > Mitchell Conservatorium – Student sponsorship
  > Rydal Show Society Youth Council – Purchase of communication equipment.
» Minor sponsorships and donations:
  > Water bottles for the Lithgow Bears
  > Sponsorship of awards for the 13 local primary and high schools.
» COVID impacted a lot of community events, there are still some groups who received funding in previous rounds that have not been able to hold their events. EnergyAustralia are keeping in touch with these groups and are hopeful they will get their events up and running soon.
» Refer to p. 33 of the attached presentation for images of the Community Grants/Sponsorships recipients:
  > presentation of Lithgow High School's Citizenship Awards
  > development of a Sensory Garden at Capertee Public School (2018 Grant recipient).
» The next major project is helping Aunty Helen with the Maiyingu Marragu Bushfire Recovery Rock Art Restoration. Refer to p. 34 of the attached presentation for images.
  > Looking to have EnergyAustralia staff volunteer to assist with the clean up the significant local art sites after smoke, ash and dust impacts from the fires.
  > This will be three days of volunteering work in December which will share knowledge of cultural conservation and remedial rock works, as well as build understanding of the cultural heritage in the area amongst EnergyAustralia staff.

Comment – Aunty Helen: noted looking forward to the volunteer days and that the organisation has been quite complicated to ensure a COVID-safe plan was adopted.

» Michelle agreed volunteerism has been greatly impacted by COVID-19 and this is the first volunteer project Mt Piper has been able to get off the ground with COVID approvals.
» The WorkPlace Giving Program has continued, with $40,420.09 donated to Mt Piper's local charity partner CanAssist since its launch.
  > COVID-19 has impacted all of their fundraising activities so the giving program will make a marked difference in their funding. They continue to operate remotely and provide vital financial assistance

to those going through cancer treatment. Refer to p. 35 of the attached presentation for an image from earlier in the year of fundraising.

» The Apprentice Program continues for 2021 – Mt Piper have advertised three positions, one electrical fitter and two mechanical fitters, and interviews commenced last week.
  > The team are also interviewing for a Traineeship position with Maintenance.
» From September to December 2020 Mt Piper has had four new starters, in the Maintenance, Purchasing, Asset and Warehouse teams.

Q – Julie: how many applications did you receive for the apprenticeships?

» Michelle: not certain overall but for the purchasing team role that was recently filled the team received 56 – 57 applications.
  > **ACTION:** Michelle to confirm number of applicants for apprenticeship.
» Michelle noted Community Engagement work would continue in January and the team are looking forward to getting more events off the ground. Mt Piper will keep the funding allocated from 2020 with recipients even if it has not been utilised yet and hope events can proceed in 2021.

Q – Julie: does EnergyAustralia give money to LLS for partnerships?

» A: Michelle: money has been allocated to LLS in the past, but they have not applied for funding recently. Other similar groups that have received funding previously include Landcare, Greencore and Conservation Volunteers.

Comment – Aunty Helen: We recently had a meeting in Wolgan to work with LLS and RFS on traditional fire burning. We had 20 people in the first meeting and hope a program will be up and running soon.

Q – Julie, to Aunty Helen: are the RFS supporting the process of slow, traditional burning?

A – Aunty Helen: yes, the program is to consult with us on these burns.

<u>Rail Unloader Project:</u>

» Steve highlighted Mt Piper plays a key role in the electricity market providing base load power so are undertaking a multi-faceted coal sourcing project to underpin the long-term future of the site once Springvale mine closes in 2024.
  > The team are also looking to ensure a diversified coal supply with past sourcing challenges from Springvale.
  > The Pipes Flat Rail Unloader is a core part of the project's objectives and will ensure fuel security for Mt Piper to 2042.
» Responses to the Invitation to Tender have been received and are now undergoing evaluation by the EnergyAustralia team. This evaluation is due for completion towards the end of January 2021.
  > The team have still been working around COVID-19 restrictions to progress the project's planning, including completing both the Aboriginal and European Heritage studies on site, as well as preparing the coal supply and rail transport tenders for issue. Heritage reports based on the site studies are in preparation.
» Based on the outcomes of the rail unloader, coal supply and rail transport tenders, EnergyAustralia expects to make a final investment decision towards the end of 2021. This will determine if the project will go ahead with an approximate $150 million expenditure.
» Refer to p. 40 of the attached presentation for an overview of the Rail Unloader. As the group has been shown previously, the unloader is now smaller than originally planned. The project is not looking at interim storage at site and a new rill tower will keep the coal supply separated. It will be possible for an extension to feed straight into Mt Piper if need be.

Q – Jim: is the project dependant on the Mudgee line being available? If coal needs to be transported through Dubbo the freight costs would be massive.

Comment – Julie: noted it would also be expensive to get the Mudgee line available.

- A: Steve: the coal unloader is being assessed on its viability to provide fuel to Mt Piper. The Mudgee line would assist with fuel provision, but the project will be assessed with or without the line.
  - If the unloader goes ahead it could source coal from east and west, so could get coal out of Newcastle. The original design of the loop only enabled delivery from one side, it is now designed to take from two directions for greater flexibility.

Water Treatment Project:

- Steve reiterated the Springvale Water Treatment Project is in its final stage with up to 36Ml/day of treatment occurring and the resulting water being used by the power station.
- The 'B' blowdown pond has been repurposed for use by the Water Treatment Plant (WTP) and is now the Mine Water Buffer Pond. This will allow Veolia to better control the quality and quantity of Mine Water going into the WTP.
  - The repurposing involved carrying out liner repairs and checking for any damage/holes on either side of the liner.

Q – Julie: is the pond double or triple lined?

- A: Steve: the pond is double lined.

Energy Recovery Project Update:

- Ben provided an update on the Energy Recovery Project.
- EnergyAustralia's Response to Submission was submitted to DPIE on 07 August 2020. Further questions/clarifications were requested by the EPA and the team provided a supplementary response last week. This is now available on the DPIE website.
- The key areas of clarification/further questions were:
  - EPA – regarding emission limits and monitoring equipment
  - DPIE – regarding Social Impact Assessment. The criteria have changed since the time the SEARs was issued meaning additional items needed to be considered in the assessment.
- Refer to p. 44 of the attached presentation for further comments and the EIS stages.

Q – Julie: were the EPA happy with EnergyAustralia's second round of responses?

- A: Ben: the team are still waiting on feedback as it was submitted just last week. DPIE suggested there may be further clarifications if required. The team have spent the full year responding to submissions and questions.
- Once queries have received adequate responses, the project will go to the Independent Planning Commission for determination. EnergyAustralia expect this to occur during 2021.

Comment – Julie: noted the project may not be determined, have spoken to DPIE who suggested the EPA were still to respond to the second round of responses. It is also interesting the project states it will apply European Standards but DPIE advised there are no current European Standards in Australia. The level of our standards do not meet the same requirements as the European Standards, but DPIE advised the EPA can enforce a clause to make compliance with European Standards a requirement.

- Ben confirmed the project has adopted a combination of Australian and European Emission Standards, whichever was the most restrictive. This means that Australian Standards for emissions have been considered, but where European Standards are stricter, the project has adopted those tighter standards for the particular emission analyte.
  - The project will be held to the Standards adopted through the development consent conditions should the project be determined.
- COVID-19 impacted the project's ability to hold face-to-face information sessions, however alternate methods have been employed to ensure people are informed on the project.
  - Informal briefings to industry bodies, Council, community groups, organisations and individuals have continued remotely where possible.

- > The team have met with various government agencies to discuss and clarify any issues raised in their submissions.
- > EnergyAustralia have agreed in principle a Voluntary Planning Agreement (VPA) with Lithgow City Council. A letter of intent was included as part of the Response to Submissions. Council also receive regular updates on the progress of the project by EnergyAustralia.
- > The project is currently working with suitably qualified contractors to secure an Engineering, Procurement and Construction (EPC) to build the plant.

Q - Julie: has Council agreed to the project?

- » A: Ben: a VPA has been agreed in principle with Council – this outlines the financial contribution that the project would make to Council should it go ahead.
- » Refer to p. 46 of the attached presentation for an artist's impression of the unit on site. This indicates the small contribution the plant would make to the current footprint of the Mt Piper Power Station.

5. **Projects in focus:**

Outage

- » Steve provided an update on the outage which is nearing completion. The outage, particularly in the COVID world, has had a firm safety focus.
  - > As discussed above a key element was the installation of four additional elevators to enable movement around site.
  - > A critical risk control protocol was developed utilising the team's knowledge base combined with that of key contractors and partners.
  - > There have been a number of projects successfully completed, with a total site presence of around 750 during the day and 250 at night.
- » A core focus is the 'stop the drop' campaign – with the height of boilers, if anything is dropped there is a major risk as items can pick up lethal velocities from height. Lots of work has been completed on planking out entire areas around site to stop drops.
- » Refer to p. 50 of the attached presentation for images of the safety measures in place.
  - > In the early days of COVID, site did not adopt temperature testing with an understanding that 80% of infections go without symptoms and the team did not want multiple team members handling temperature guns. As technology progressed non-contact scanners became available for temperature screening and these have been employed on site.
  - > UV C tool sanitisers have been used to manage close quarters work and shared tools.
  - > EnergyAustralia gave every contractor a COVID PPE pack which included reusable masks with PM2.5 sleeves, bandanas, scarves etc to limit contact. There are also PPE vending machines on site which issue PPE when needed through site staff's service numbers.
  - > Drop protection through planking out areas has been an investment of hundreds of thousands of dollars.
- » Refer to p. 51 of the attached presentation for images of the contractor's village. This is usually located further off-site, however to better manage COVID-19 and bring efficiencies moving around the site, the team cleared the Kangaroo Park area and built the village very close to the Station.
  - > All major contractors have office and ablution facilities in this area close to the building.
- » Refer to p. 52 of the attached presentation for images of the high-pressure turbine upgrade showing the rotor and casings.
  - > EnergyAustralia are inputting excellent modern equipment – this will provide extra MW through burning more efficiently, thereby providing more coal-efficient power generation.
- » Refer to p. 53 of the attached presentation for images of the generator which has been rewound and balanced with copper elements replaced.

- This was a significant part of the project and will mean the generator rotor will last for the remaining life of the plant. The steam turbine components should only have to be removed one more time for testing for the remainder of the plant's life.

» Refer to p. 54 of the attached presentation for images of the boiler and scaffolding which has been through its mid-life refit. A full furnace scaffold enabled multiple work faces across different heights throughout the boiler.

- The 4th stage reheater shown has been in operation 30 years, which involves metals heating to 620 degrees Celsius so has started to wear. Of the 156 elements in this, 56 have been replaced. The material was changed to ensure the boiler does not cause any further issues.

» Refer to p. 55 of the attached presentation for images of the Cooling Water pump and Cooling Tower repairs.

» Refer to p. 56 of the attached presentation for images of further Outage works:

- The air heater baskets which were previously made of copper-based alloys were replaced after some copper deposition issues over the years.
- With the new heater and turbines, the Chemical Control Room which monitors water systems were upgraded. This will ensure the team have the best information on chemical factors affecting metallurgy.
- The steam mains were replaced to ensure management of ageing – the high heat moving through the mains meant the welding had started to show signs of ageing. At this stage of life replacements are scheduled over time for the different welds based on their level of degradation.

<u>Groundwater Management Project</u>

» Ben provided an update on the Mt Piper Groundwater Interception Project.

» Following a comprehensive Risk Assessment and review of Site Safety Plans, Procedures and Safe Work Method Statements, drilling commenced on site on Wednesday 18 November.

- The driller was on site putting in bore holes for two weeks and these were logged with water bearing zones mapped.
- All water from the bores is coming back to Mt Piper for treatment, there is zero discharge at the drilling sites.

» The program is dedicated purely to intercepting water influenced by the ash repository – the aim is to intercept the water before it reaches the Creek. Several million dollars have been spent to ensure the water is captured and brought back to the Station.

» Refer to p. 59 of the attached presentation for a map showing the area of interest and bore sites.

- The ash repository border is around the number's 9 and 4 on the left of the map, with Bore D10 just off the left of the map.
- Adjacent to these numbers is where it is predicted the leaching is expressing itself underneath the highway.
- Cultural heritage sites were demarcated with a minimum 25m exclusion zone – represented by pink squares.
- Wombat burrows were identified and avoided – represented by orange circles.
- Eight pilot (scout holes) were drilled to confirm geology and water bearing zones, then filled in and rehabilitated – represented by black diamonds.
- Nine monitoring bores were installed with depth loggers installed across the new and existing monitoring bores – represented by black stars.
- Two test bore holes were drilled – represented by green triangles.
- The maximum depth of all holes is 25 metres, with one scout hole drilled to 50 metres.

- Pump testing is currently underway to test the aquifer yields and water quality yields. Monitoring bores will record performance of the aquifer.
- Water salinity profiles in the monitoring bores will be measured this week.

» The scope of the project is the two groundwater extraction sites (green triangles). Everything else indicated on the map are monitoring and scouting sites.

Q – Julie: where would number 9 physically line up with on the highway? Asked to clarify that water is leaching from the ash repositories at 9 and 4, and it is suspected the leaching is entering Neubecks Creek in the two green triangles area?

» A: Ben responded it is a little bit up (north) from the entrance to Western Coal Services and confirmed the noted understanding of the project.

» There is an old open cut pit in the Creek so there will be a surface water pump to extract any high saline water, but primarily the work will occur at the two green triangle sites.

- The rest of the bore and drill holes have been completed to inform the detailed design of the system and work out the volumes/capacity required for pipelines. ERM have also completed an extensive amount of ground-water modelling which will help confirm calculations.

» The team will be completing pump tests this week from the two green triangle sites to determine how the aquifer behaves.

Q – Julie: will you have any monitoring upstream? If you're assessing it will come out in two spots, are there any other bore holes / surface water needs?

» A: Ben responded in the area around the repositories there are about 30 bores which have been monitored over time. There are also 12 surface water monitoring points every so often along the Wangcol creek that are checked over time.

Q – Julie: are these surface water monitoring points and additional bores continuously monitored?

» A: Ben noted they are monitored by taking a sample every month in the creek, with the additional sites monitored for the past six months.

- Since discovery of the leaching there has been very intense, focussed monitoring on these sections of the creek. Centennial are also monitoring the area and creek.

» The project will be approved under State Environmental Planning Policy (SEPP) 55 Remediation of Land and requires a Review of Environmental Factors (REF) to be prepared to assess the environmental impacts of the project.

- This is in development and is expected to be finalised prior to Christmas. The REF provides soil and water, biodiversity and heritage assessments.

» The REF will be publicly exhibited likely in January 2021. This is a smaller process than a Development Application, but it will be on the EnergyAustralia website and the team will complete engagement with relevant authorities and the community.

- **ACTION:** EnergyAustralia to send link to online REF and details of public exhibition to CCC members when available.

» McMahon Services will be contracted to complete the detailed design, supply, construct and commissioning of the project.

» Analysis of the data from the test bores will be undertaken between now and January. Results will inform the water licence applications and detailed design of the system. Water level quality and monitoring will continue.

» Construction is expected to commence in the first quarter of 2021.

<u>Preparing for Summer</u>

» Steve provided an overview of Mt Piper's Summer Readiness Project, which aims to maximise the availability and reliability of electricity generation over the peak summer period. Moving into summer

there is greater demand with air-conditioning units running in offices now COVID restrictions are easing as well as homes.

» To ensure Summer Readiness:
  > MP1 will be returned to service before the peak summer period
  > some contractors from the outage will be maintained as well as access to coal and water supplies to address any issues should they arise
  > a proactive maintenance program is in progress to keep the plant available and critical systems reliable. As an example, to manage equipment redundancy the team will ensure if there are two pumps they are swapped regularly to ensure there are no hidden failures
  > maintenance and engineering support will be maintained over the Christmas holiday period – other parts of the business have mandatory leave.

Bettergrow update

» Steve provided an update on the Bettergrow Wallerawang transition.
  > Negotiations commenced in December 2018 and involved re-negotiating the salvage contract to decrease some scope and change the terms of payment.
» The sale settled on 15 September 2020. Bettergrow's initial plans will see around 60 jobs created during partial demolition and up to 300 during operation of the planned industrial park.
» The Ash Dams were handed back to NSW Treasury on the same day and Generator Property Management Pty Ltd (GPM) have taken on all regulatory and contractual obligations associated with the past and future management of the land.
  > GPM's focus will be planning for, then undertaking, the safe closure of the Kerosene Vale Ash Repository and the Sawyers Swamp Creek Ash Dam, then appropriately remediating the balance of the site for permanent closure.
  > GPM are currently focussed on the responsible day-to-day management of the site and have been issued Environmental Protection Licence 21185 for the site, available here.
  > To contact GPM, visit http://gpmco.com.au/contact/ or call 1800 817 711.
» Michelle: the plans look exciting and it was great to see the signs out the front celebrating the heritage of the plant naming the 'Old Wallerawang Power Station.'

Q – Julie: is GPM Treasury and are they required to have a CCC?

» A: Steve noted GPM is the Government Entity who will oversee the site on Treasury's behalf. A CCC is not within the consent conditions for the land.

Q – Jim: I received a letter which gave an update but did not say who to contact about the level of water in the dam. It was higher than I expected when on the top of the ridge. I struggled to find the correct people to contact.

Comment – Julie: it looks like there is minimal suggestion of them communicating with the public about the ash dam's management.

» Brendan noted the contact details as above to reach the GPM team and reiterated they are focussed on planning the safe closure of the Ash Repository and Dam then remediating the land for permanent closure.

Q – Julie: will it be a couple of years until the Bettergrow site is functioning?

Comment – Jim: noted he had discussed the project with Bettergrow and they advised it would be two years before they were ready to start projects. There is lots of work going on and they are also interested in improving Lake Wallace. They plan to talk to Council around building more BBQs, managing the reeds better and making it an excellent place to visit.

Q – Jill: asked whether their plans for Lake Wallace include a camping ground?

Comment – Jim: they suggested a range of things including reed areas for birds and a camping ground.

Comment – Lauren: noted any plans are in draft. Bettergrow did present recently at the last Council meeting and have a range of possible plans that are in the early stages.

Q – Jim: will there be a clear point of contact for GPM? It is right on our back door, so we need to know what's going on with the site.

» Brendan highlighted the enquiry number for GPM is noted as above.

6. **General discussion**

» Brendan called for any general discussion points.

There were no general discussion points noted.

» Brendan asked the group if members would be interested in reducing the number of meetings each year from four to three.

> Due to the number of larger projects moving past their planning stages into holding patterns, and Bettergrow taking over Wallerawang, less frequent meetings may be appropriate.

> There is no set requirement from DPIE for the number of meetings; they recommend while there are large amounts of work in planning to have frequent, quarterly meetings, however this can be dialled back when works are in a steady state.

> If the number of meetings is decreased, a CCC member can still contact Brendan at any time to request an extraordinary meeting. Also, if there was to be an immediate planning proposal that needs to be tested with the CCC an additional meeting would be held. All planning proposals before their submission would still need to go through the CCC with the project being explained and feedback sought.

» If three meetings were adopted they could be held in March, mid-year and the end of the year.

» Brendan asked all CCC members to advise if they were comfortable moving to three meetings instead of four per year.

Q: Jim: is this a proposal from EnergyAustralia?

» Brendan: this proposal is from him in his role as the group's Independent Chair and has not been suggested by EnergyAustralia. It is being suggested by me as Chair based on the following:

> a lot of activity is winding down with projects entering the determination phase

> a large part of site being taken out of EnergyAustralia's control

> members time is valuable

> CCC members agreeing to the proposal

All CCC members agreed to the proposal of moving to three meetings per year, noting CCC member's can request an extraordinary meeting if required.

» Brendan tentatively proposed the CCC meeting dates for 2021:

> Monday 1 March

> Monday 5 July

> Monday 6 December.

» These dates will be checked to not clash with Council meeting dates before their confirmation.

» **ACTION:** Lauren to send Council meeting dates for 2021 to confirm timing.

» **ACTION:** Circulate the confirmed dates for 2021 meetings after checking they do not conflict with Council. Include sending a letter to Jim.

» As discussed, if any committee member had an issue that required pressing discussion outside of these dates, or if a planning application was being lodged outside of the regular meeting cycle, an extraordinary meeting can be requested.

7. **Meeting close**

- Brendan thanked all members for their participation and constructive involvement in the group this year.
- The next CCC meeting is scheduled for Monday 1 March 2021.
- Meeting was closed at 6:45pm.

7 December 2020

Energy*Australia* Lithgow Region

Community Consultative Committee

Greg McIntyre
Head of Mt Piper

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Agenda

1. Welcome and introductions
2. Review of Notes From Previous Meeting
3. Site Update from EnergyAustralia
4. Project updates from EnergyAustralia – existing and planned
5. Projects in focus:
   - Outage
   - Groundwater Management Project
   - Preparing for Summer
   - Bettergrow update
6. General Discussion
7. Meeting Close

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Welcome and Introductions

Review of Notes from Previous Meeting

Response to Questions

Response to Questions / Actions

When was it first noticed that it was entering Neubecks Creek?

Monitoring of surface water quality at WX22 in Neubecks Creek has been conducted since at least 2003; monthly monitoring of WX22 has been conducted since 2008. Graphs of concentration of key analytes in surface water at WX22 vs time are presented in the Annual Reports. The graphs present data (starting from 2010) for boron, chloride, nickel, sulfate, manganese and TDs since the concentrations of these analytes have exceeded Environmental Goals at times in recent monitoring periods.

The graphs indicate that exceedance of Environmental Goals in surface water in Neubecks Creek at WX22 have typically been sporadic, however, both the frequency of exceedances and the concentrations increased since 2018. Typically the exceedances have occurred in summer months when stream flows are lower. At WX22, there had previously been exceedances of boron in 2011 and 2013, and of sulfate in 2013. Manganese and nickel concentration have equalled or exceeded Environmental Goals at WX22 at times since monitoring began in 2003. However, concentrations of these analytes also increased in 2018 and 2019 to values that were higher than previous.

Based on these trends, leaching of groundwater that had been impacted by the ash repositories into Neubecks Creek was noted in 2018 and 2019, particularly after the prolonged dry conditions of 2018. These findings have been reinforced by results from the increased surface water monitoring that has been undertaken at more locations in Neubecks Creek by EnergyAustralia since Winter 2018

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Response to Questions / Actions

Provide an update on the September 20 monitoring round of the Bathurst Copper Wing Butterfly

Covered in presentation later in meeting.

The CCC will be provided a link to the Review of Environmental Factors (REF) when it becomes available in November

The REF for the Groundwater Interception Project is being prepared and is expected to be finalised in December 2020. A digital copy of the REF will be provided to the CCC and a link to its location on the EnergyAustralia website when available.

How much did Mt Piper's Ash Repositories increase by?

In 2019 there was 341,635 tonnes or 284,596 cubic metres
In 2020 there was 470,657 tonnes or 392,214 cubic metres
Total over last 2 years – 812,292 tonnes or 676,910 cubic metres

What is happening with the Pine trees across the road from Mt Piper? EnergyAustralia was planning on taking the pine trees out and putting in a fire break. Also the pine trees neighbouring Julie's area that are on EnergyAustralia land.

Unfortunately, we have not been able to garner a response to date.

Will continue to follow this up

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Response to Questions Submitted Since Last Meeting

Please see attached Lithgow Community Power Project Inc commissioned report from Professor Andrew Blakers ANU Engineering, which I would like to be tabled and recorded in minutes and requesting a response from EnergyAustralia head office. Professor Blakers report shows that Lithgow is a key strategic location for transmission and opportunities for renewables, solar, wind and pumped hydro.
I ask EnergyAustralia head office why it has not invested in renewables at Mt Piper Power Station given this report? When will it invest? (JF)

We thank Julie for providing the report from Professor Andrew Blakers.

EnergyAustralia doesn't have any wind or solar projects planned for Mt Piper.
Mt Piper is critical to maintaining reliable, affordable electricity supply, particularly at times of peak demand. It provides stability as we integrate intermittent sources of power like wind and solar into a modern energy system.

Locally we have our immediate project priorities – the Mt Piper Unit 1 Turbine and the Energy Recovery Project.
More broadly, EnergyAustralia supports clean energy projects with the rights to 800MWs of renewable energy, solar and wind farm power purchase agreements, and we half-own the Cathedral Rocks Wind Farm.

EnergyAustralia also has long-term renewable agreements that support our goal to be carbon neutral by 2050.

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Response to Questions Submitted Since Last Meeting

As a local resident and a member of the local environment group, I oppose the current DA Waste to Energy project at Mt Piper Power Station.
Will EnergyAustralia reconsider its current DA Waste to Energy Recovery Project and withdraw the proposal and present a renewable project, given the entire nation is transitioning as with the world? (JF)

We acknowledge your opposition to the Energy Recovery Project.
However, the project will continue to progress through the stages towards final approval.

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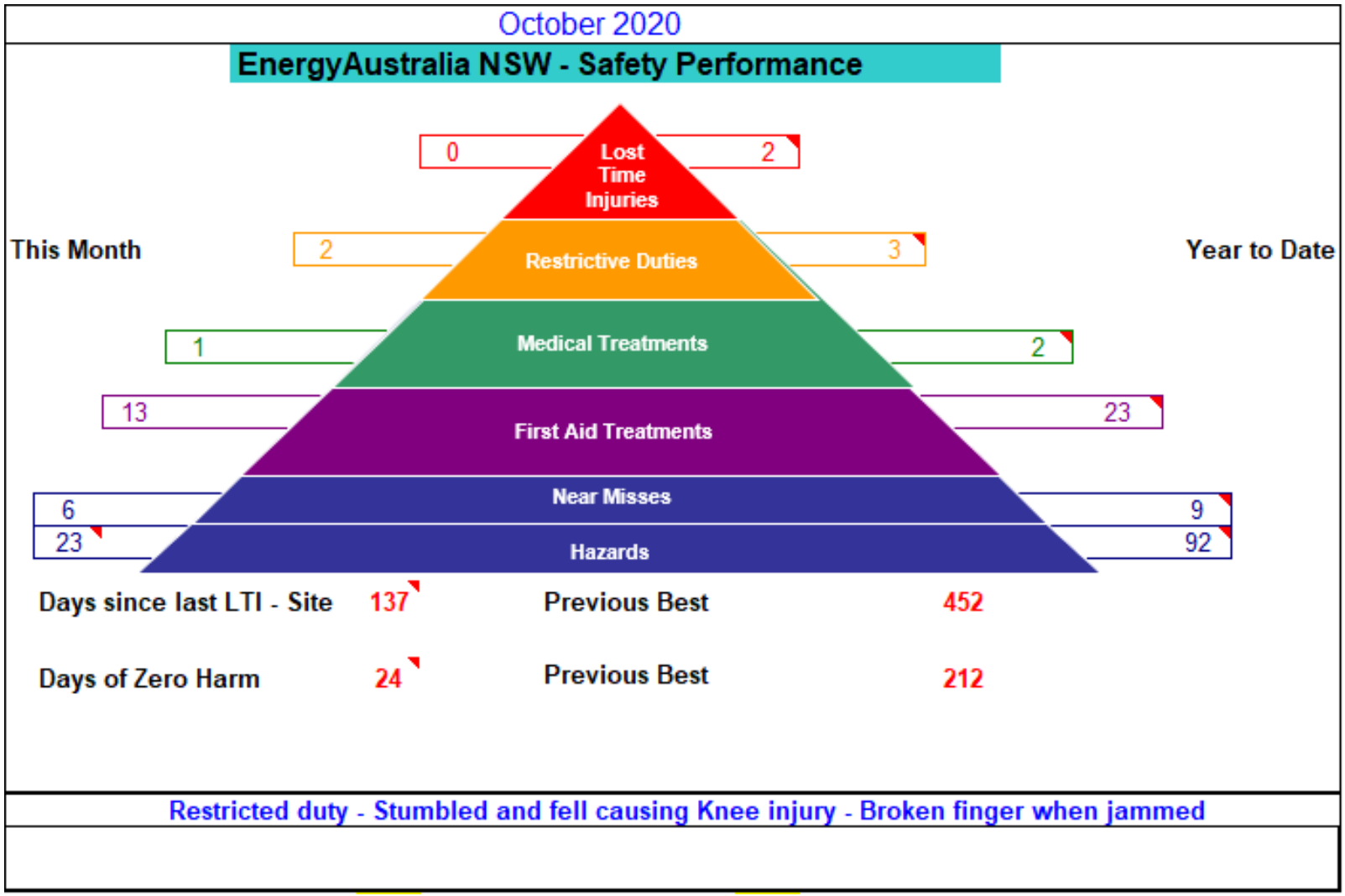
Site Safety

Site Safety – October 2020



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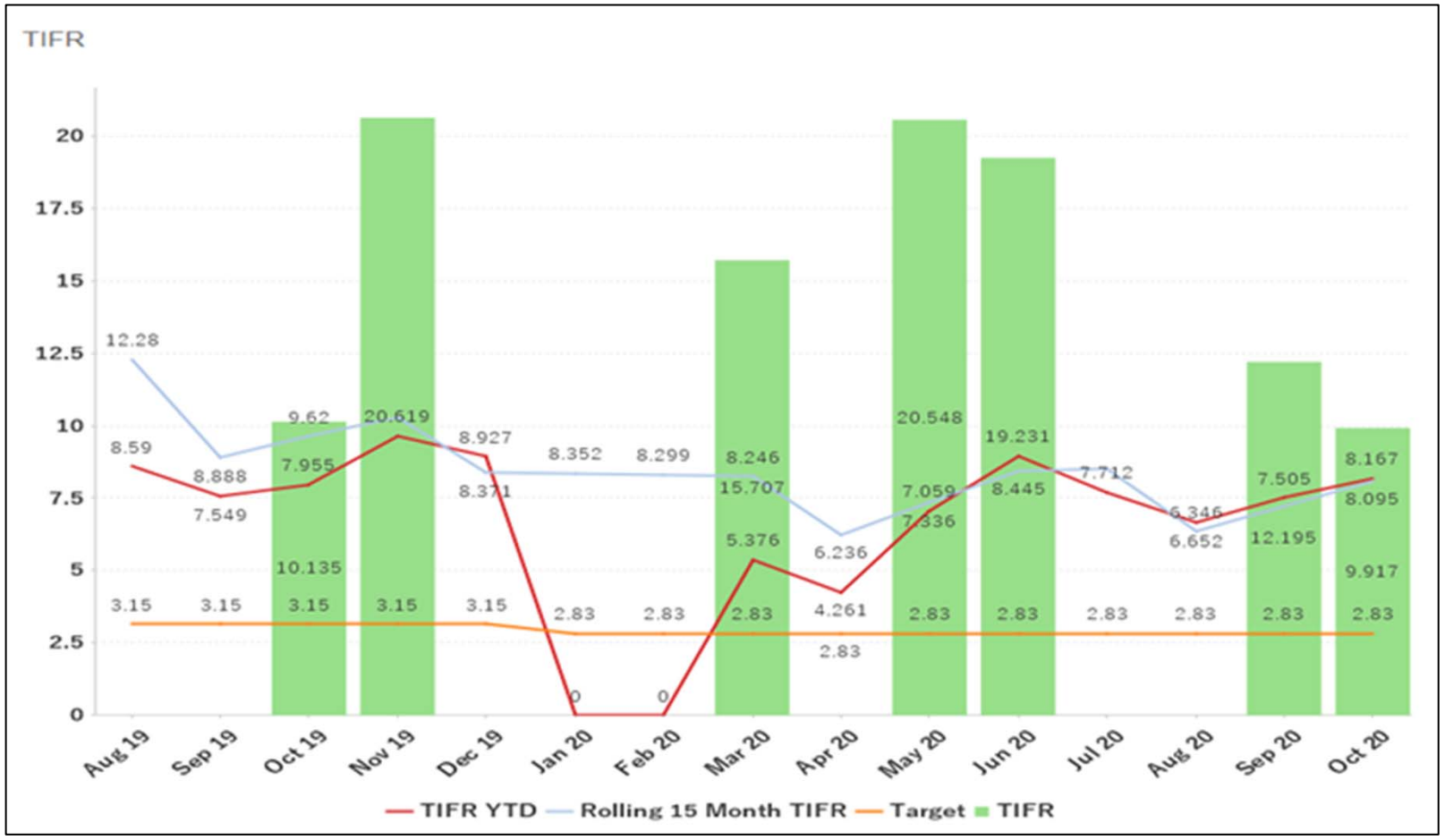
Site Safety – October 2020

Total Injury Frequency Rate



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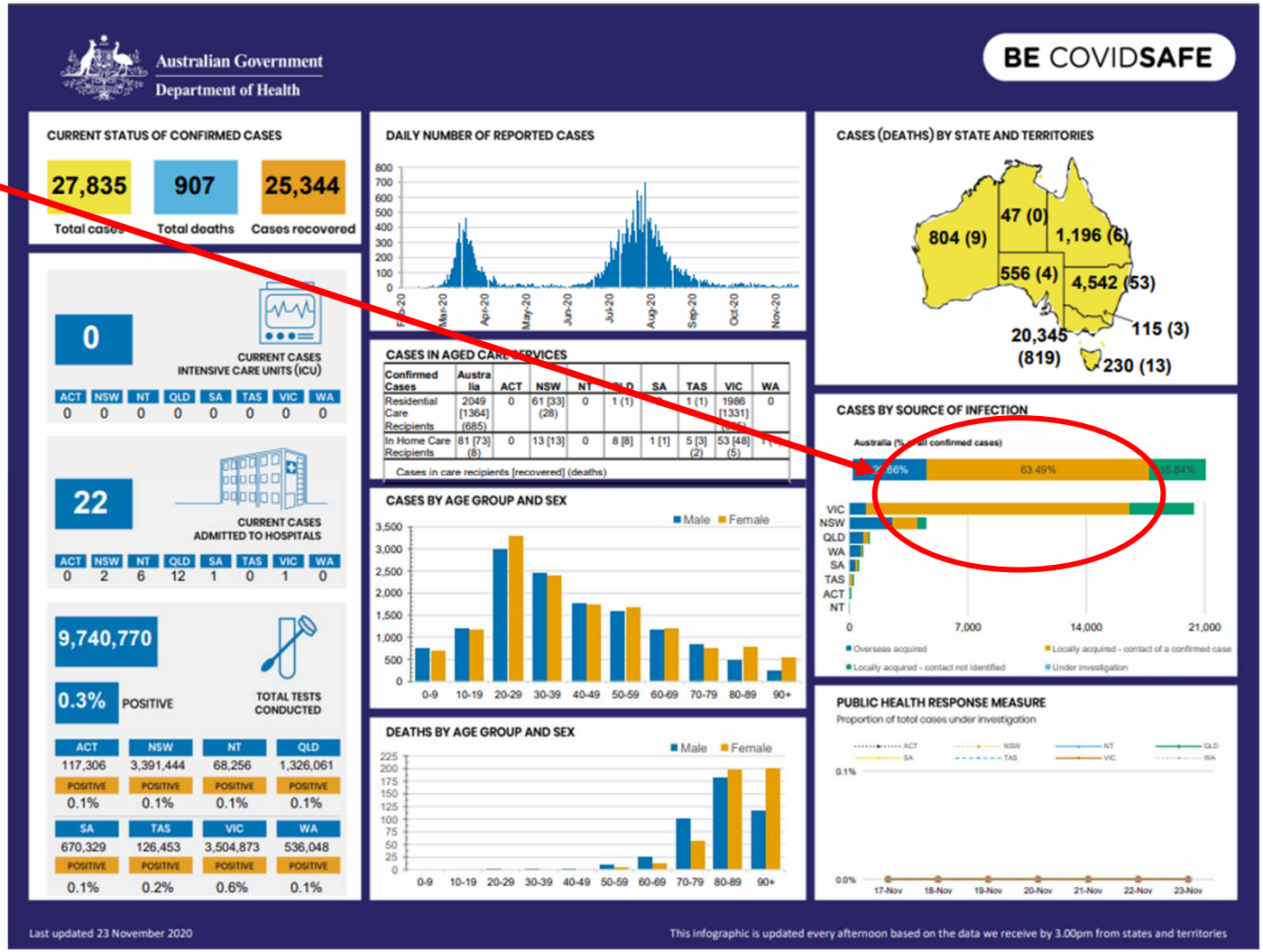
COVID Update

Note behaviour of first and second “waves”

- First was driven mostly by overseas returning traveller infections.
- Second was overwhelmingly Victoria, and primarily community transmission.

Mount Piper adopted a policy of assessing risks that was over and above that legally required.



For eg, personnel from Vic were required to remain in isolation for 5 days, rather than attend site.

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Mount Piper Approach

Manage Risks to site and the Community

- Protocols to reduce the possibility of transmission in the workplace to ALARP
  - Specifically to prevent any carried infection from affecting others.
  - Allowing those with specific needs to WfH or WfW where appropriate.
  - Secure PCR from transmission of the virus inwards.

- Outage brought further challenges.
  - Increased people on site resulted in additional protocols and changes to process
    - For example :
      - from 2 people per lift to 6 – but wearing masks.
      - 4 more temporary lifts
    - Risk assessment of multiple people in vehicles the risks around single person.
  - Interstate travel with border closures
    - Adopted a stronger stance than NSW Govt, to further reduce the risk of spread in communities and the workplace.

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COVID-19 - Where to From Here ?

Globally, more is known about COVID-19 now than ever before in history.

While things are relaxing in multiple states and countries, there's not going to be any return to "normal" as we used to experience it.

- If COVID is a compensable injury in the workplace, then our focus has to expand to ALL communicable disease transmission in the workplace
- Personal Distancing and Hand Hygiene are the two most effective methods of stopping spread, both in and out of the workplace.
- Limiting contacts, similarly limits opportunities for exposure
  - Work from home will still be encouraged where it is appropriate for personal and business needs.
  - Unnecessary travel to and from site will still be discouraged.

Pine Dale Mine
Purple Copper Butterfly

Purple Copper Butterfly (PCB)

- The PCB has a mutualistic relationship with a species of ant and the bursaria plant
- The ant tends and protects the PCB larvae and the larvae provides the ant with a sugary honeydew
- The larvae feeds exclusively on the bursaria plant
- Pine Dale Coal Mine has three PCB monitoring sites
- Monitoring has been ongoing in a voluntary capacity since mining activities ceased in 2014
- PCBs were located during the Spring surveys at monitoring site PCB1 until 2020

Purple copper butterfly (Paralucia spinifera) on Bursaria **Photo:** Simon Nally/DPIE

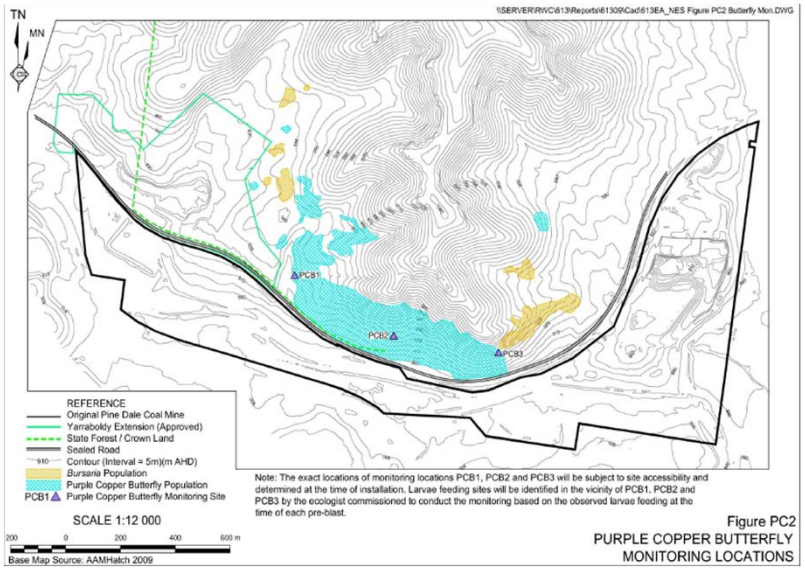

Figure PC2
PURPLE COPPER BUTTERFLY
MONITORING LOCATIONS

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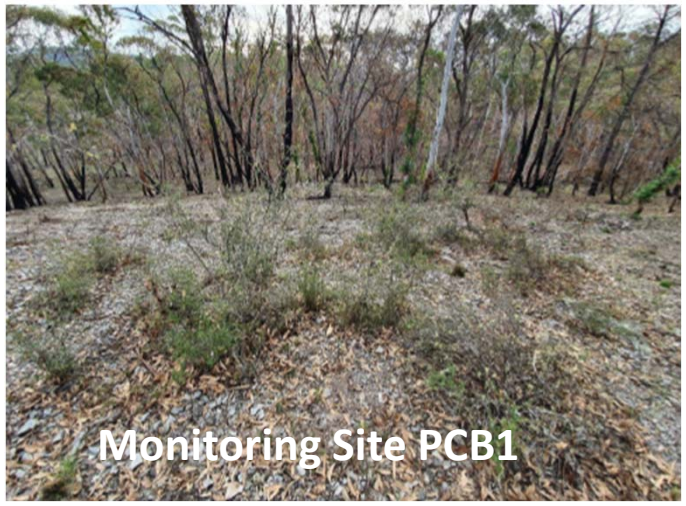
Purple Copper Butterfly

- Gospers Mountain Bushfire caused indiscriminate damage to the habitat of the PCB
- No PCBS or their larvae were located during the Autumn and Spring surveys 2020
- The 2020 March survey showed that burnt and damaged bursaria plants recovering
- Fortunately, adult PCBs were observed flying at Neubecks Hill (2km south-east of the Pine Dale Coal Mine) in habitat that was partly burnt
- This, along with the recovery of the bursaria plants shows the ongoing potential for the survival of the species in the area



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Purple Copper Butterfly

- The 2020 March survey showed that burnt and damaged bursaria plants recovering
- DPIE visited the PCB monitoring sites in 2020 as part of the Threatened Species recovery program
- EA has ceased the monitoring of the PCB whilst the mine remains in care and maintenance. Any change to this status will result in the reinstatement of the monitoring
- This has been endorsed by Department of Agriculture, Water and the Environment
- EA is committed to providing ongoing support to the recovery and protection of the threatened species and the regeneration of the bursaria into the future

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Update - Water Management

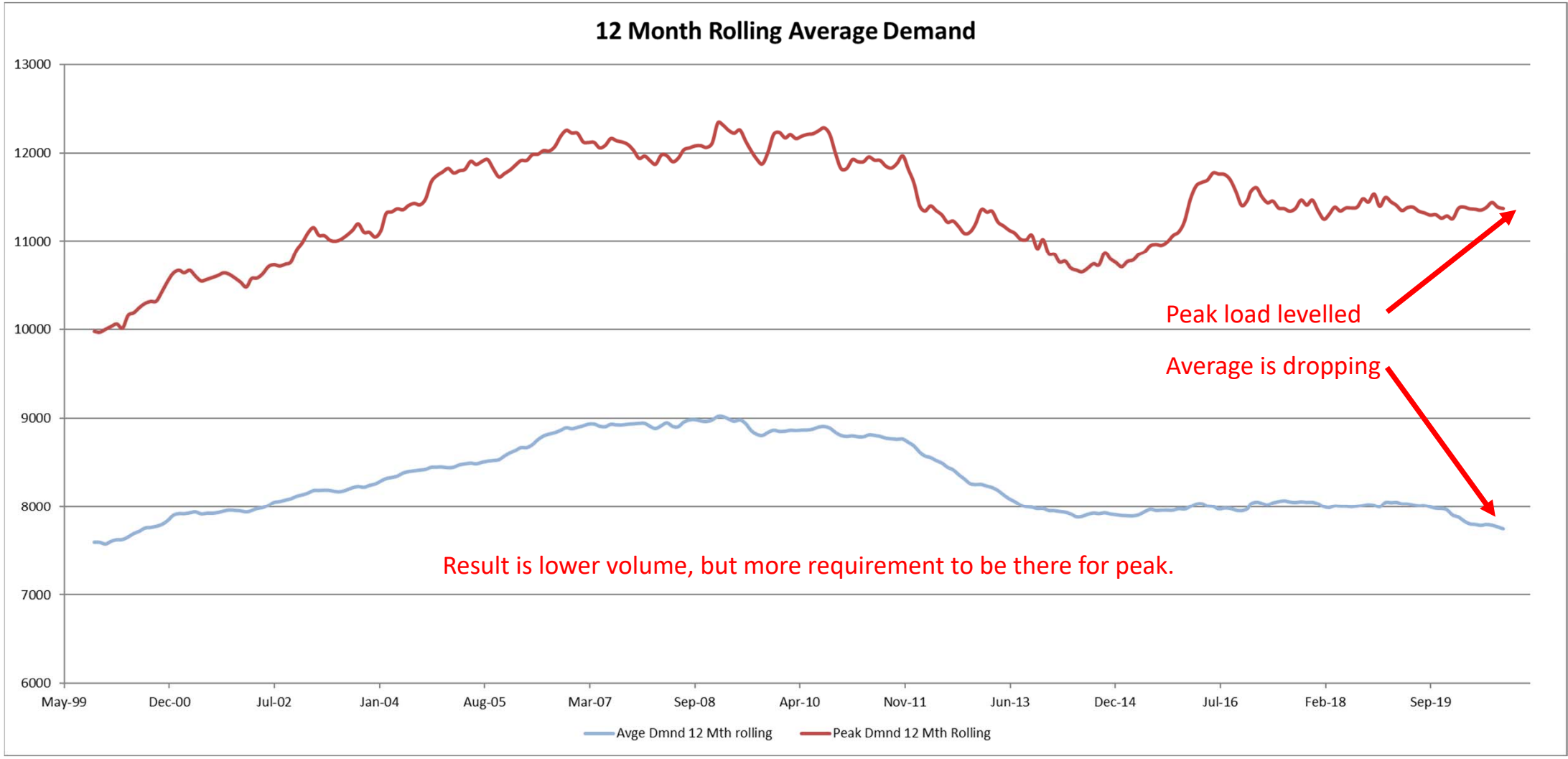
Update on Water Management

- Oberon Dam level is at 33.04%
- Total Active Storage is at 96.0% with:
  - Lake Lyell at 97.4%
  - Lake Wallace at 105.3%
  - Thompsons Creek Dam at 93.6%
- Green alert for Blue-green algae at Coxs River Below Lake Wallace.

As at 21 August 2020

Market Update

Operation in the Market



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Operational Performance - October

	Metric	This Month	Budget	YTD	YTD Target	BP20	On Target BP20
Generation and Fuel	Generation GWh	316	337	5945	6406	7198	NO
	Coal Use KT	125	136	2518	2724	2907	NO
	Auxiliary Energy	7.41%	5.94%	6.70%	5.94%	5.94%	NO
	Heat Rate GJ/MWh	9.77	9.33	9.86	9.33	9.33	NO
Availability	Availability	35.73%	43.00%	75.62%	87.90%	82.59%	NO
	MP1	0.00%	0.00%	75.21%	82.80%	72.18%	NO
	MP2	71.47%	93.00%	76.02%	93.00%	93.00%	NO
Market Performance	VOLA ($M)	$22.9	$16.04	$51.39	$16.0	$ 37,851.63	NO
	FCAS Causer Pays Factor	0.00%			2.00%		
	Market Non Conformance	1	0	19			

Market Non-Conformances have bene present as a result of providing Primary Frequency Response – note FCAS Causer Pays

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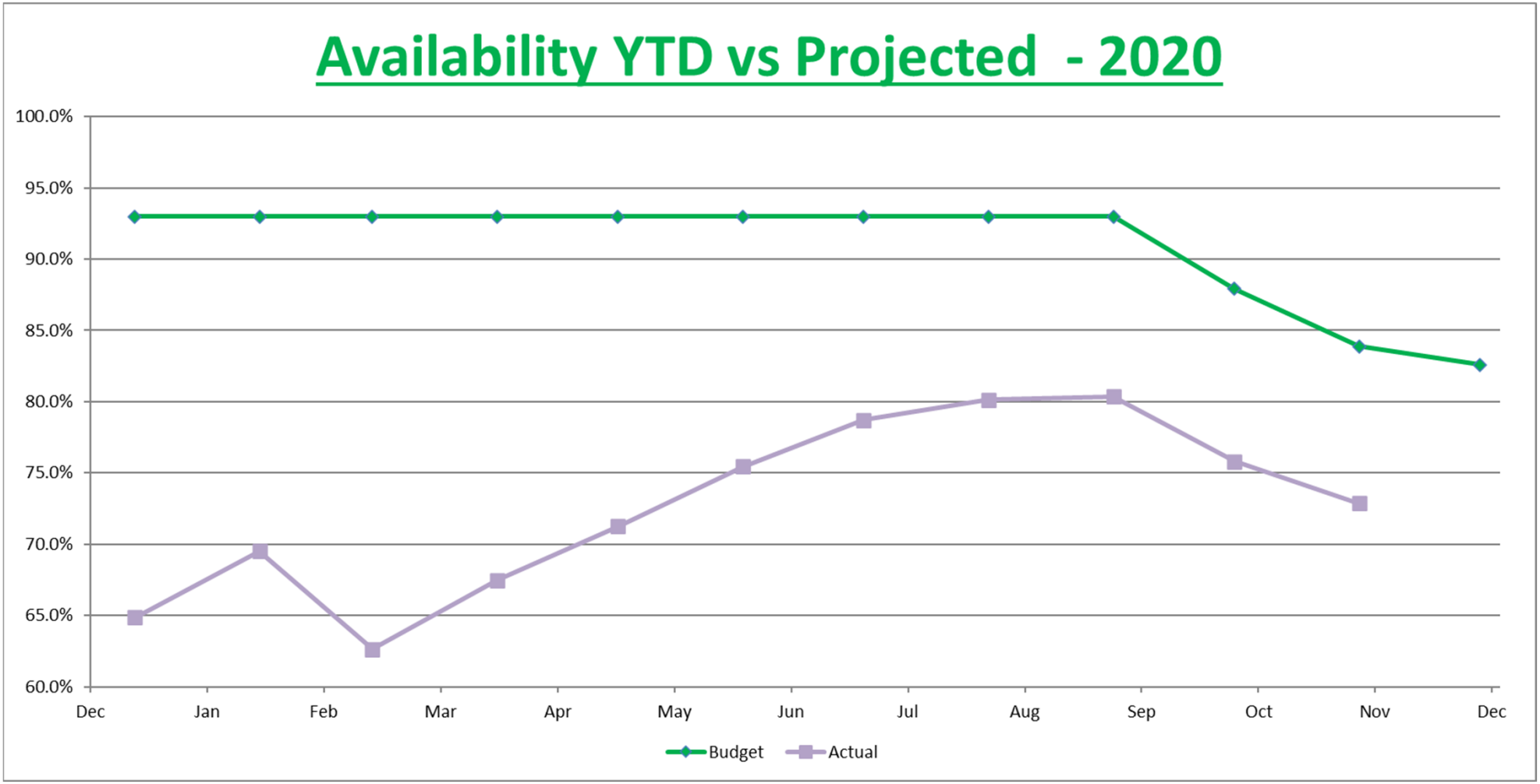
Mt Piper Operations



Negative Impact of Secondary Superheater failures was a significant poor start to the year.

- MP2 repairs effected, however, had one incident of a nearby tube in October.
- Nursing MP1 facilitated it reaching the outage.

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Operations (Site) Update

Mt Piper Operations

- MP1 Outage still taking place.
  - Full commercial operation scheduled for week prior to Christmas.
- Springvale Longwall move completed, and deliveries are again strong.
  - Coal Stockpile now again over 1MT
- MP2 suffered a tube leak during the MP1 outage period, leading to nil generation on site for a period of time.
- Water Treatment Facility fully functional
  - Serious need to manage water and brine with single unit operation, considerably more difficult with two Units out.

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Update – Lamberts North Ash Placement Project

Lamberts North Ash Placement Project Update

- Ash Placement Volume Jan – October 2020
  - Brine Conditioned Ash to Mt Piper Area 1 - 470,657 T
  - No Water Conditioned Ash to Lamberts North
- No complaints received
- No environmental incidents were recorded during the past quarter
- An application to modify the Lamberts North development consent is being prepared. The modification is seeking approval to install HDPIE liner for the disposal brine conditioned ash.

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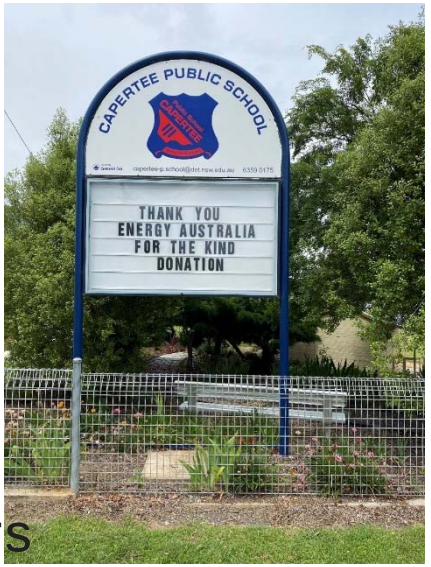
Community Engagement Program

Community Engagement Program 2020



Community Grants Round 2 - Recipients

- Lithgow Aged Care – Picnic area for residents
- Lithgow District Community Nursery – Purchase of whipper snipper
- Lithgow District Junior Cricket Association – Sun shelters
- Mary MacKillop Today – Financial Wellbeing workshops
- Mitchell Conservatorium – student sponsorship
- Rydal Show Society Youth Council – purchase of communication equipment

Sponsorships and Donations

- Water bottles for Lithgow Bears
- Sponsorship of awards for local primary & high schools

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Supporting our local community

With 2020 being a year to remember, we continue business as usual when supporting our local schools.

EA's Jen Cordina recently presented Lithgow High School's Evan Brown & Geordie Goodwin with the Citizenship Award

Capertee Public School was a 2018 Community Grant recipient to develop a Sensory Garden.
It's now completed after hard work by the students, parents and the local community. Plants chosen are drought resistant natives suitable for the local region.

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Maiyingu Marragu Bushfire Recovery Rock Art Restoration

Following the bushfires earlier this year, which affected the Lithgow region, art sites of importance to the local community and the Wiradjuri people, were affected by smoke, ash and dust.

These sites are around 13,000 years old and very fragile. They need work to ensure their long term preservation for future generations.

Volunteers are needed to assist with this clean up work, which will ensure not only a sharing of knowledge on cultural conservation and remedial rock works, but also build understanding of the cultural heritage of the area.

There are three days scheduled: December 15, 16 and 17.

Staff need to get approval from their Team Leader and register their interest through EnergyAustralia's volunteering platform, Catalyser.

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WorkPlace Giving Program

- A total of $40,420.09 has been donated to our local charity partner, CanAssist since its launch
- COVID-19 has meant all their fundraising activities have been cancelled, so our donations make all the difference.
- They are operating remotely and continue to provide vital financial assistance to those going through cancer treatment.

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Employment Opportunities

Apprentice Program

- We have advertised for 3 positions, 1 electrical and 2 mechanical apprenticeships. We are currently interviewing the candidates.
- We have also advertised for a traineeship position that we are also interviewing for.

New Employees

- In the period September 2020 to December 2020 new starters were welcomed to Mt Piper in Maintenance team x 1, Purchasing team x 1, Asset Team x 1, Warehouse officer x 1.

Update Rail Unloader Project

Rail Unloader Project

Recap

- Mount Piper has a key role in NSW's electricity market and in the transition to a clean energy future
- EnergyAustralia is undertaking a multi-faceted coal sourcing project to underpin the long-term future for Mt Piper once Springvale mine closes in 2024
- A rail coal unloader at Pipers Flat is a core part of the project's objectives to ensure fuel security for Mt Piper

Current

- Responses to the Invitation to Tender have been received and are now being assessed

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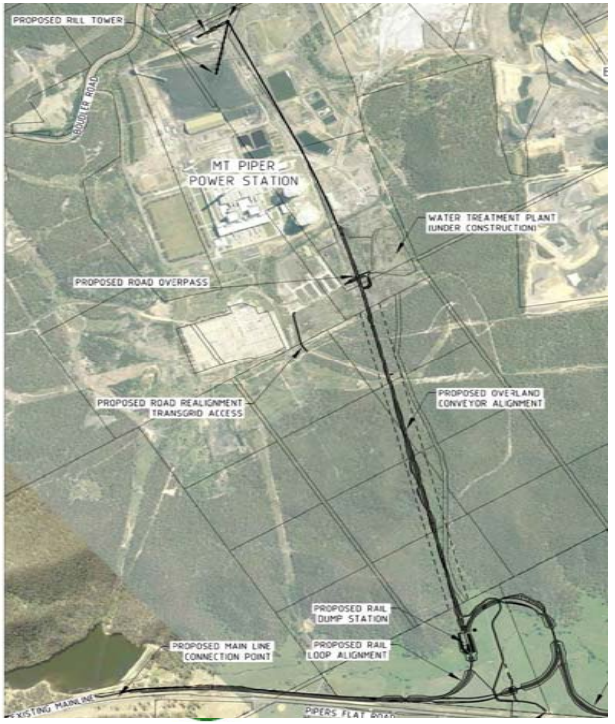
Rail Unloader Project

- Aboriginal heritage site work has been completed and a report is being prepared (could take up to 6 months to complete)
- A European heritage study was also undertaken and the report is currently being finalised
- Coal supply and rail transport tenders were recently issued
- Based on the outcome of rail unloader, coal supply and rail transport tenders, EnergyAustralia expects to make a final investment decision in 2021

Rail Unloader Project

- Rail loop at Pipers Flat and eastern siding
- Two major bridges over Pipers Flat Creek
- A rail unloading station and amenities area
- A dump hopper and loadout to the overland conveyor
- An overland conveyor
- A transfer station at Mt Piper Power Station
- A new rill tower on the coal stockpile
- An extension to conveyor C14 for direct feed to the plant



Update – Water Treatment Project

Joint EANSW / Centennial Water Treatment Project

- The Water Treatment Facility (WTF) is treating up to 36Ml/day and the treated water is now being used in the power station.
- The “B” blowdown pond works have been completed by the Customer group and has been handed over to Project Co for the repurposing into the Mine Water Buffer Pond. This will allow Veolia to better control the quality and quantity of Mine Water into their Plant.

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Mt Piper Energy Recovery Project

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Stages of EIS

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

A Response to Submission was submitted to the DPIE on 7th August. Further clarification and comments were received through September and October from:

- EPA – regarding emission limits and monitoring equipment.
- DPIE – regarding Social Impact assessment. Criteria have changed since the time the SEARs was issued and additional items need to be considered in the assessment.
- ARUP (DPIE & EPA's advisor) requested clarification on the way one policy element will apply to RDF producing facilities (the "resource recovery criteria")
- CDM Smith (NSW Health advisor) – recommendation to include PFAS testing in the Proof of Performance trials.

Project is preparing Supplementary Response to Submission to address the above after several meetings with the relevant agencies.

We have submitted a response to the submissions made during the public exhibition process. Currently preparing Supplementary Response to Submission

After the Supplementary Response to Submissions, DPIE will prepare an assessment report.

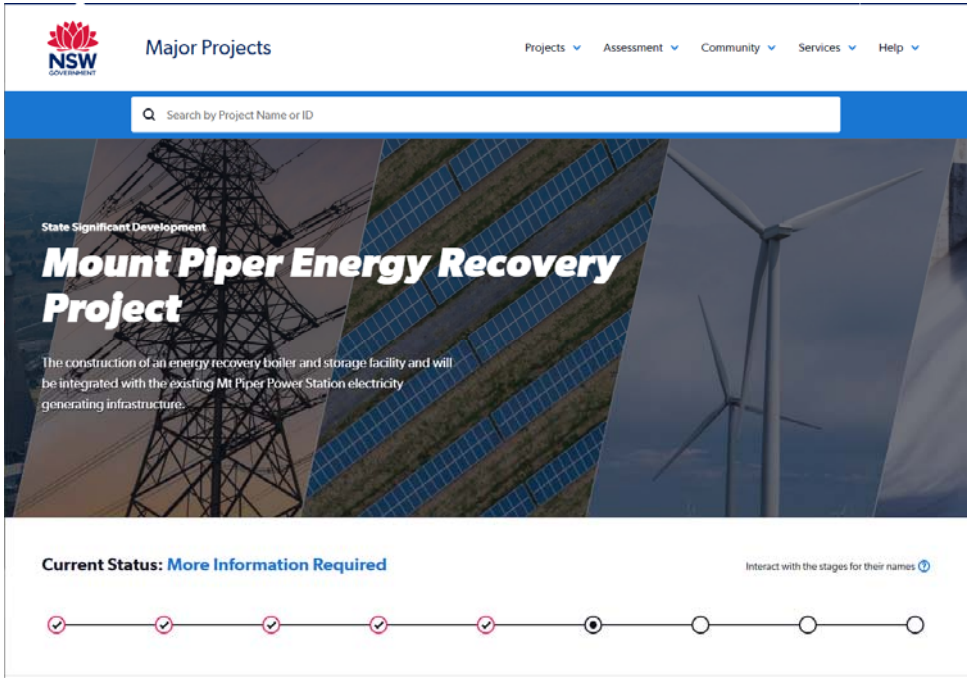
A decision will then be made, either by DPIE or the Independent Planning Commission as appropriate.

We are here

Community Information (since last CCC meeting)

- Covid-19 risks have prevented face-to-face updates, however informal briefings to Industry Bodies, Council, Community groups, Organisations as well as individual members of the community have continued remotely where possible.
- We met with various government agencies to discuss and clarify the issues raised in their submissions.
- We have begun exploring a voluntary planning agreement (VPA) with Lithgow City Council. A letter of intent was included as part of the Response to Submission.
- Regular updates to Lithgow City Council on the status of the Project.
- Currently, the Project is working with suitable contractors to secure an Engineering, Procurement and Construction (EPC) to build the plant.
-

More updates will be provided as the Project undergoes next stage of Development Approval Process



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PROJECTS IN FOCUS –

- Outage
- Groundwater Management Project
- Preparing for Summer
- Bettergrow Update

Project in Focus – Unit 1 Outage

Project in Focus – Major Outage – Unit 1

Major Outage nears completion

- Safety has been a firm focus throughout.
- Covid 19 Controls have been in place including quarantine periods, additional lifts, reusable masks, temperature checks, additional village spacing and washing and sanitising facilities.
- A Critical risk control protocol was developed utilising our own knowledge base combined with the knowledge base of our key contractors / partners.
- There has been a number of projects successfully completed, with a total site presence of around 750 during the day and 250 at night.
- A massive amount of work has gone into drop protection.

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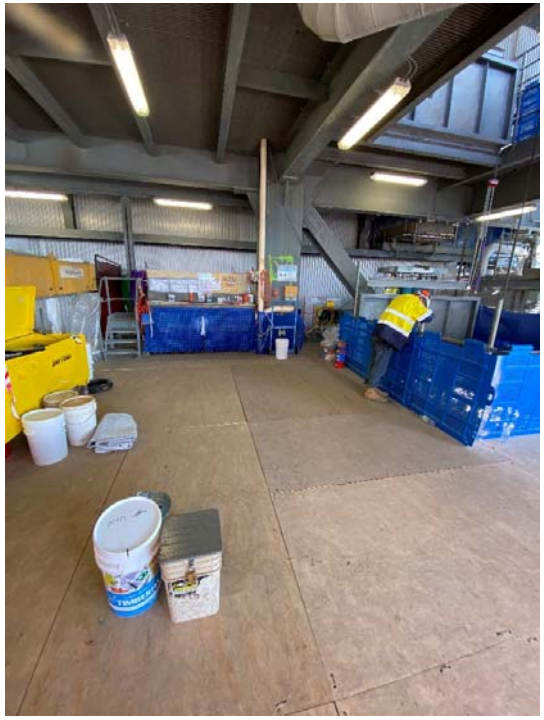
Project in Focus – Major Outage – Unit 1 - Safety

Temperature Screening

UV C Tool Sanitiser

PPE



Drop Protection

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Project in Focus – Major Outage – Unit 1 - Village

A village spanning an area larger than a football field was set up to accommodate workers.

Village through stages of construction

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Project in Focus – Major Outage – Unit 1 - Turbine

The Turbine train has been upgraded, delivering more output by way off efficiency improvements utilising modern designs.

Test fitting the new Intermediate Pressure Turbine in its casing

Test fitting the new High Pressure Turbine in its casing

As the pressure decreases, the volume of steam increases, requiring larger blade areas through each stage of the Turbine.

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Project in Focus – Major Outage – Unit 1 - Generator

The Generator has been rewound, efficiency improvements have been made utilising modern winding and insulation technology.

Inserting the rotor back into the generator

Rewind in progress

Rewind in progress

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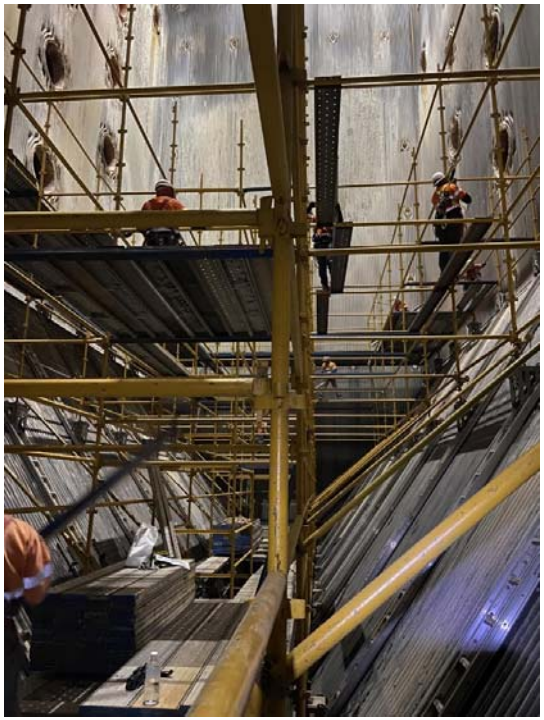
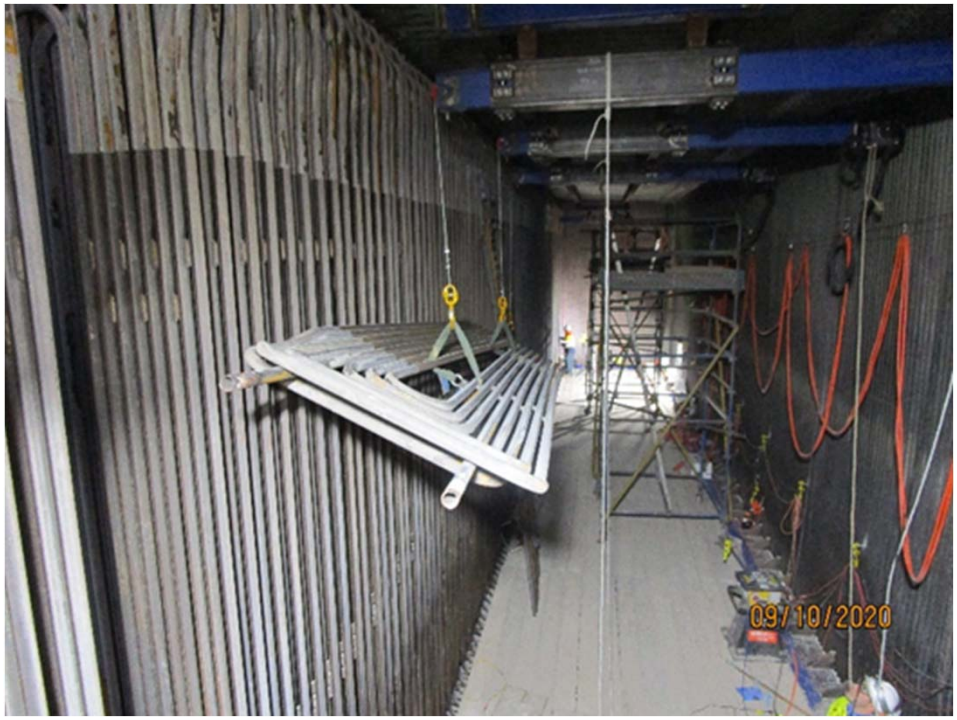
Project in Focus – Major Outage – Unit 1 - Boiler

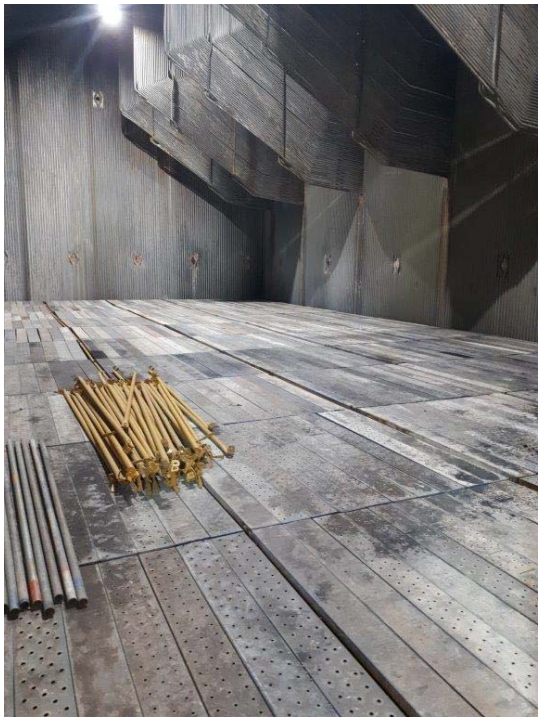
Significant refurbishment works have been conducted in the boiler to ensure reliable operation.



Early Boiler Scaffolding



4th Stage Reheater Panel Removal



Boiler Scaffolding at level 8

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Project in Focus – Major Outage – Unit 1 – Cooling Water

CW Pump Removal

CW Pump Ready to go offsite

Conduit repairs in the Cooling Tower

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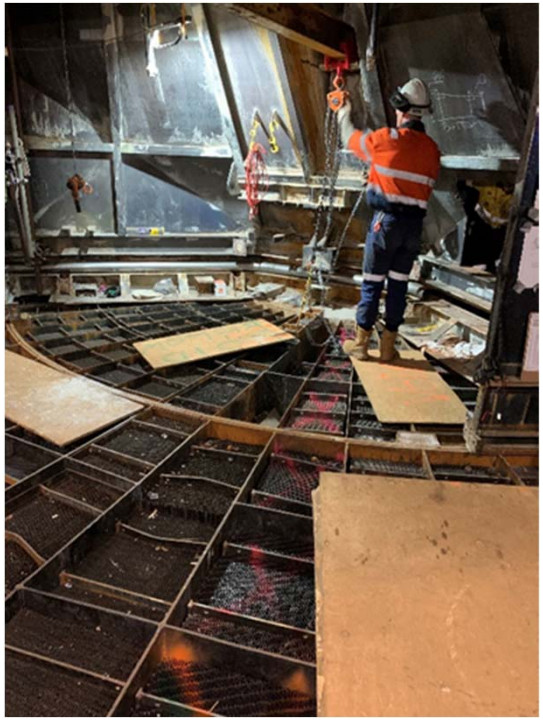
Project in Focus – Major Outage – Unit 1 – Other Works

Chemical Control Room Upgrade

Air Heater Basket replacements



Steam Mains Replacements

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Project in Focus – Groundwater Management Project

Mt Piper Groundwater Interception Project

- Following a comprehensive Risk Assessment and review of Site Safety Plans, Procedures and Safe Work Method Statements, drilling commenced on Wednesday 18th November.
- logging of bore holes completed along with water bearing zones mapped
- All waste water transported back to MPPS for treatment - ZERO discharge at the drilling sites

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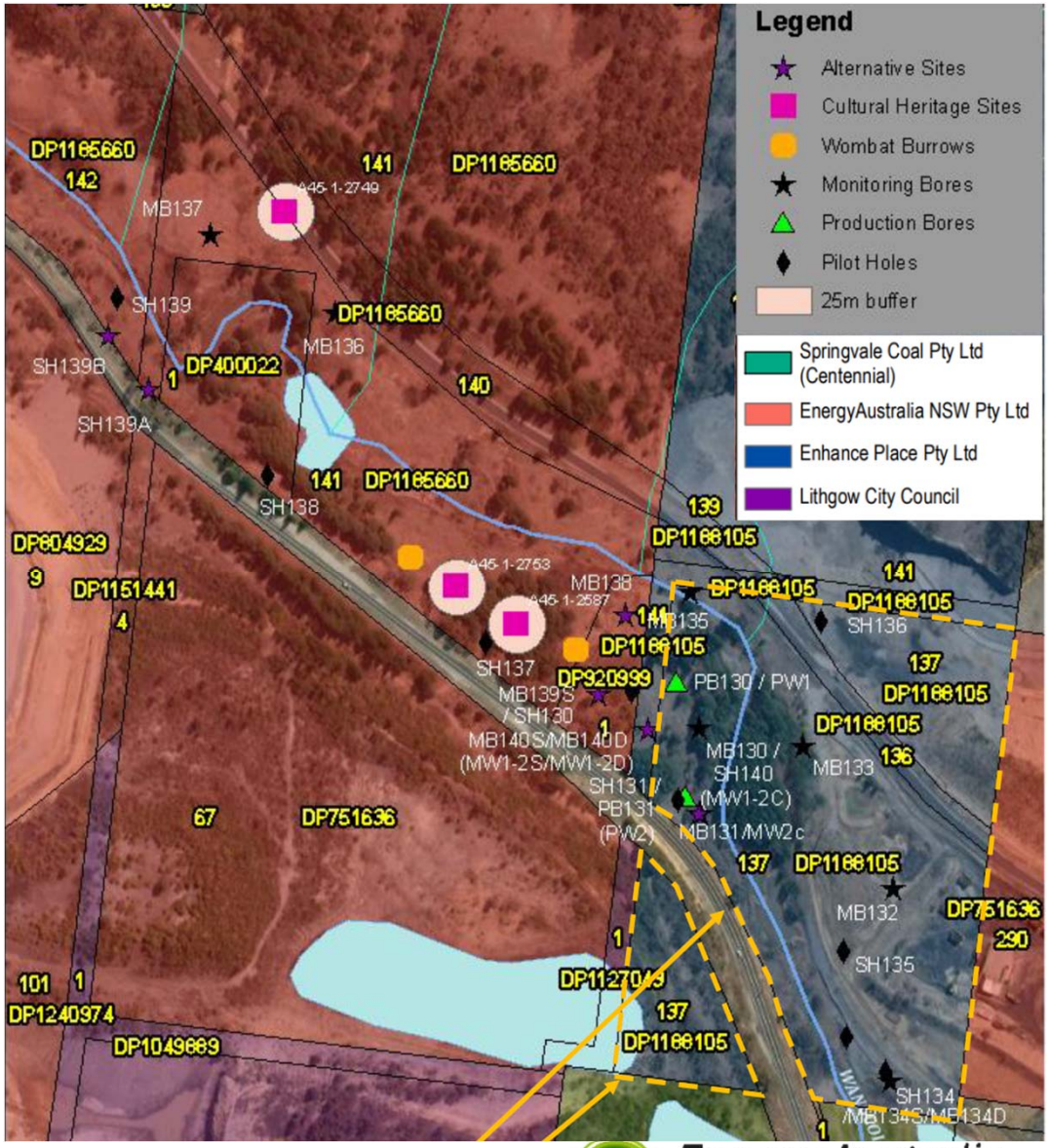
Groundwater Interception Project

- Cultural Heritage sites demarcated in the field – minimum 25m exclusion zone
- Wombat burrows identified and avoided
- 8 pilot (scout holes) drilled to confirm geology and water bearing zones (yield and EC)
- Pilot holes filled in and rehabilitated
- 9 monitoring bores installed – depth data loggers installed across new and existing monitoring bores
- 2 test bores drilled
- Maximum depth of all holes – 25m. One scout hole drilled to 50m
- Pump testing underway to test the aquifer yields, water quality yields. Monitoring bores will record performance of the aquifer
- Water salinity profiles in monitoring bores to be measured this week



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Project Update

- Mt Piper Groundwater Interception Project will be approved under State Environmental Planning Policy (SEPP) 55 Remediation of Land
- A Review of Environmental Factors (REF) has been prepared to assess the environmental impacts from the Project. The REF is supported by separate technical assessments:
  - Soil and Water Assessment
  - Biodiversity Assessment
  - Heritage Assessment

Licence / Approval	*Authority*
Water licencing approvals	Natural Resource Access Regulator (NRAR) WaterNSW
Authorisation for under-road crossing	Lithgow City Council – LCC, Transport for NSW – TfNSW
Environment Protection Licence (EPL) variation	NSW Environment Protection Authority (NSW EPA)
Environmental Management Plan update and approval	DPIE

Project Update (cont.)

- McMahon Services Australia will be contracted to undertake the detailed design, supply, construct and commissioning of the Project
- EA will continue to engage with the relevant approving authorities (EPA, DPIE, NRAR, WaterNSW, TfNSW and LCC) regarding the proposed mitigation solution.
- EA intend to exhibit a Review of Environmental Factors (REF) related to the Project in January 2020.
- Analysis of data from test bores to be undertaken December-January. Results will inform water licence applications and detailed design including infrastructure and operational parameters/rules
- Water quality and water level monitoring will continue
- The CCC will continue to be updated regarding the Project

Project in Focus -
Preparing for Summer

Summer Readiness Project

Purpose:

- Maximise the availability and reliability of electricity generation over the peak summer period

Activities:

- Unit 1 Return to Service before the peak summer period
- Maintaining contractors and access to coal and water supplies
- Proactive Maintenance program in progress to keep our plant available and critical systems reliable.
  - In service checks
  - Routine maintenance
  - Equipment redundancy checks
  - Respond to urgent defects in timely manner
- Maintenance and engineering support will be maintained over the Christmas holiday period

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Project in Focus – Bettergrow Update

Wallerawang Update

- Commenced negotiations with BetterGrow in December 2018.
- Renegotiation of the Salvage contract to enable completion.
- Settled sale on 15 September 2020.
- BetterGrow's plans will see around 60 jobs created during partial demolition and up to 300 during operation of the planned industrial park.

Old Wallerawang Power Station Site and buffer lands (including Lake Wallace was handed to BetterGrow on 15 September 2020.

Ash dams were handed back to NSW Treasury on the same day.

Wallerawang Update

GPM – Generator Property Management Pty Ltd is now the owner of the areas of the Wallerawang Power Station site north of the Castlereagh Highway, comprising an area of approximately 528ha.

GPM has taken over all the regulatory and contractual obligations associated with the past and future management of these lands previously held by EnergyAustralia from 15th September 2020. Greenspot Wallerawang Pty Ltd has taken possession of all of the power station lands south of the Highway, including the former power station for the purpose of operating their business.

GPM's key focus will be planning for and then undertaking the safe closure of the Kerosene Vale Ash Repository and the Sawyers Swamp Creek Ash Dam and then appropriately remediating the balance of the site for permanent closure. In the immediate term, GPM will be focussed on the responsible day-to-day management of the site. GPM has been issued Environmental Protection Licence 21185 for this site which is available at: https://apps.epa.nsw.gov.au/prpoeoapp/

GPM looks forward to establishing a high level of transparency in relation to the works at Kerosene Vale Ash Repositories and we welcome feedback.

To contact GPM, please visit: http://gpmco.com.au/contact/ or call our complaints line on 1800 817 711

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10th November 2020

TO WHOM IT MAY CONCERN

This short report describes a possible Calare Renewable Energy Zone

Andrew Blakers

Regards,

Andrew Blakers

Calare Renewable Energy Zone

Prepared for the Lithgow Community Power Project Inc

The Lithgow-Bathurst-Orange district is highly suitable to be designated a ***Renewable Energy Zone (REZ):***

1. Close proximity to Sydney (100 km)
2. Very good solar resources (Figure 1)
3. Excellent wind resources (Figure 2)
4. Excellent pumped hydro energy storage opportunities (Figure 3)
5. Excellent existing transmission connections to Sydney (Figure 4)
6. Most of the electorate of Calare (figure 5) has excellent prospects to participate in the renewable energy industry.

The Lithgow-Bathurst-Orange district (and the electorate of Calare) is one of the most prospective Renewable Energy Zones in Australia.

Power from wind and solar farms in the Lithgow-Bathurst-Orange district can travel directly east to Sydney using existing high-power transmission lines or can be transferred by an existing high-power transmission line to Goulburn and thence to Sydney.
Large-scale private investment in a Calare REZ could result in 10-30 Gigawatts of wind and solar PV (and transmission and storage) over the next 10-20 years. This investment would amount to $15-50 billion. A significant fraction of this investment would be spent in the district to build and operate and (periodically) refurbish solar farms, wind farms, roof-mounted solar PV systems, new power transmission, pumped hydro energy storage and battery storage.
Such large-scale investment is a **MAJOR** economic opportunity for the district.

For context, Australia is currently installing 6-7 Gigawatts of solar and wind per year with a value of about $8 billion per year.

Local jobs would be created in approvals, road construction, transport, land preparation, earth moving, solar panel mounting, turbine erection, electrical connections, project management, operations & maintenance and many others.

The renewable energy industry is installing net new generation capacity globally (mostly wind and solar PV) at a rate that is 5 times faster than the fossil and nuclear industries combined. In Australia, nearly all new generation capacity is wind and solar PV, because it is cheaper than new coal, gas or nuclear. Australia is installing 250 Watts per person per year of new solar and wind power, which is 4 times faster than the EU, Japan, China or the USA:
https://www.dropbox.com/s/hdgwfhzd5mbzs14/Australia%20RE%20pathfinder.pdf?dl=0

However, lack of new transmission threatens to throttle this industry. The eastern part of Calare near Lithgow is close to Sydney and has excellent existing connections.

Calare is already participating in the renewable energy industry via solar and wind farms. However, there is far larger opportunity in future years if Governments provide assistance.

What has to happen to unlock this opportunity?

1. The NSW and Federal Governments could designate Calare/Lithgow as a renewable energy zone
2. The Federal and State Governments could facilitate construction of additional transmission to allow movement of solar and wind power from Calare/Lithgow into Sydney and thereby unlock private investment into Gigawatts of new solar and wind farms
3. Federal and State members of Parliament, and local Councils, could endorse and support a Calare/Lithgow REZ
4. A detailed study of the enormous potential for jobs and investment could be commissioned

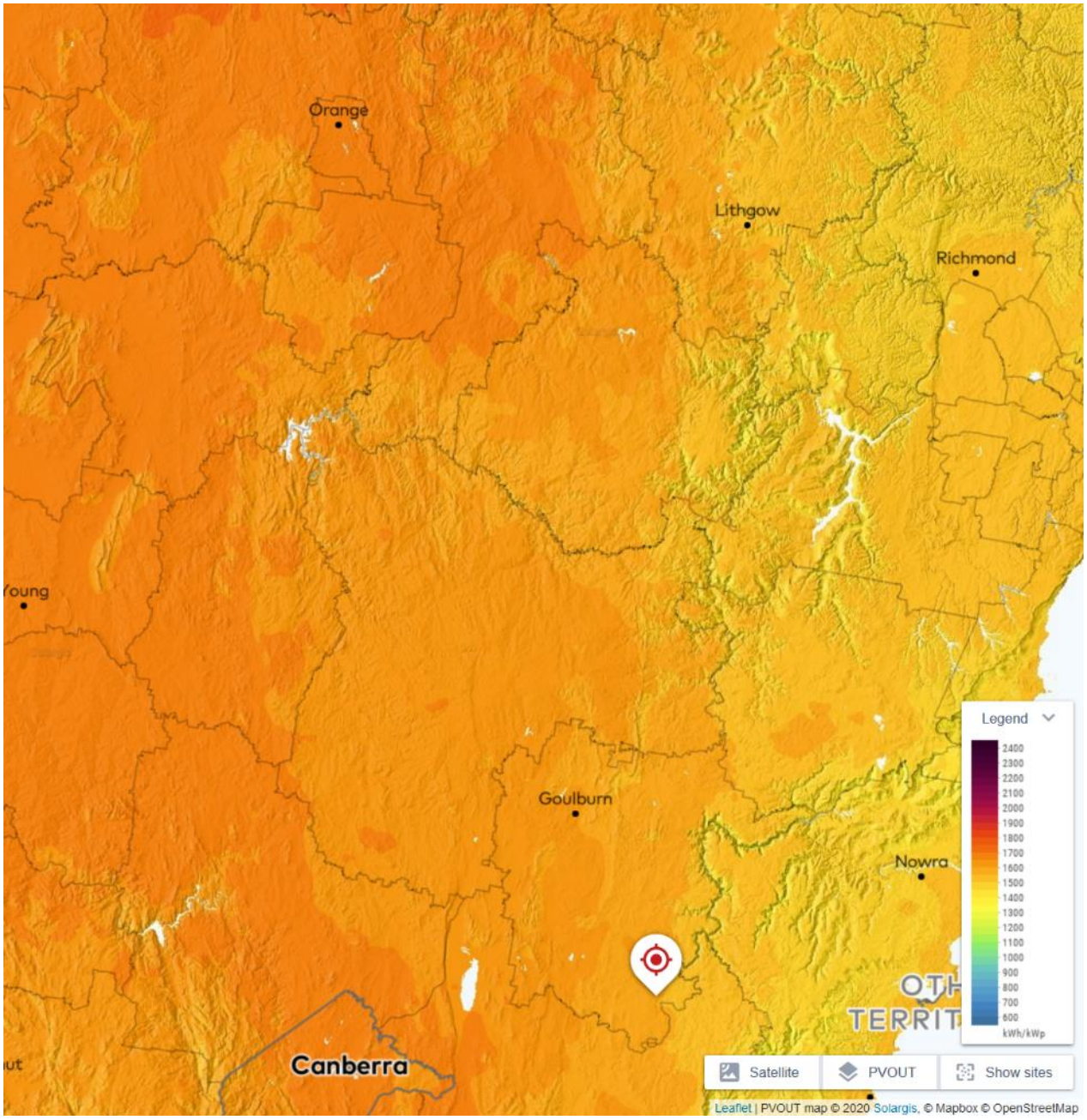

Figure 1: Solar resources are very good. Source: http://globalsolaratlas.info/

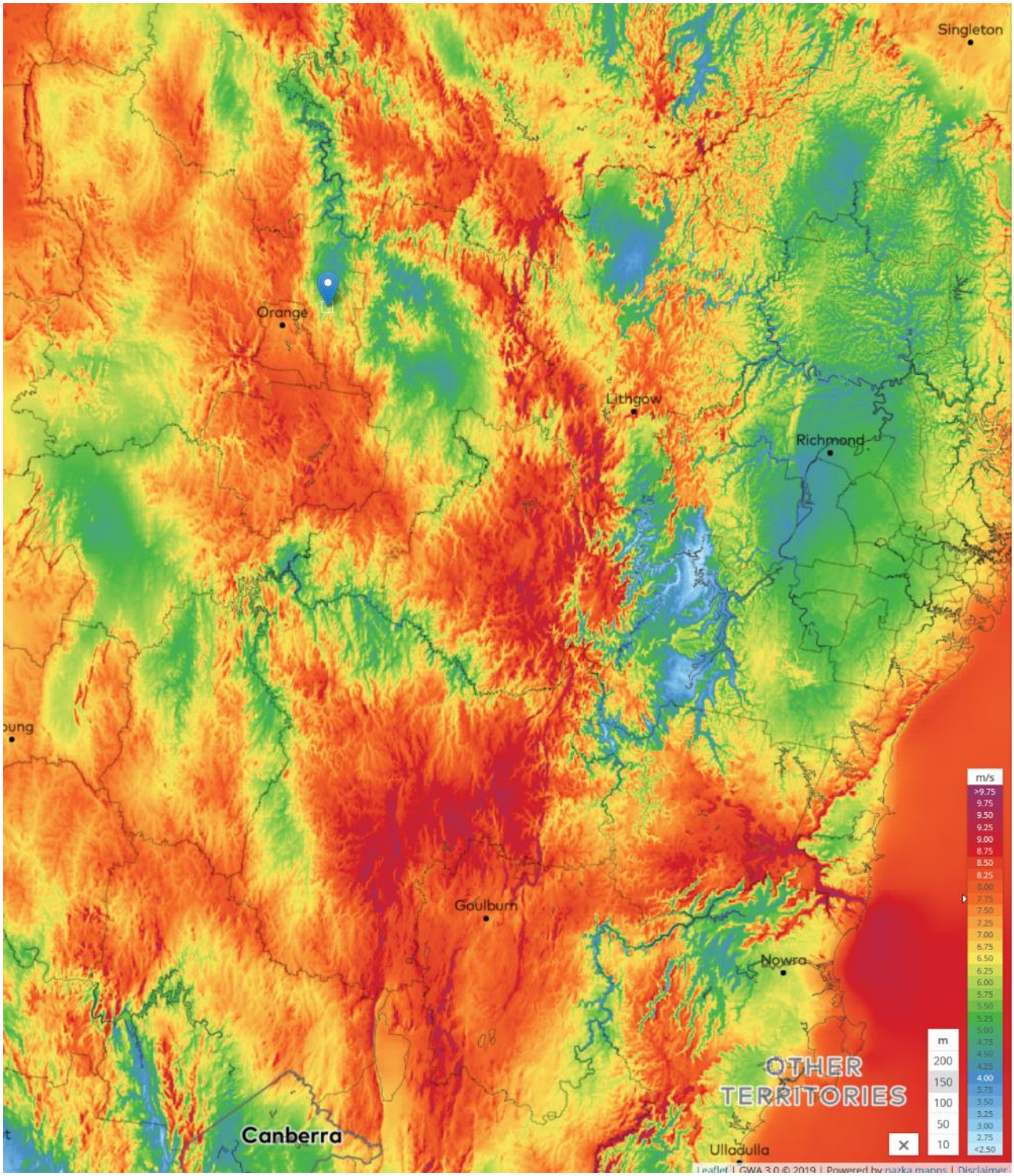

Figure 2: Wind resources are excellent. Source: https://globalwindatlas.info/

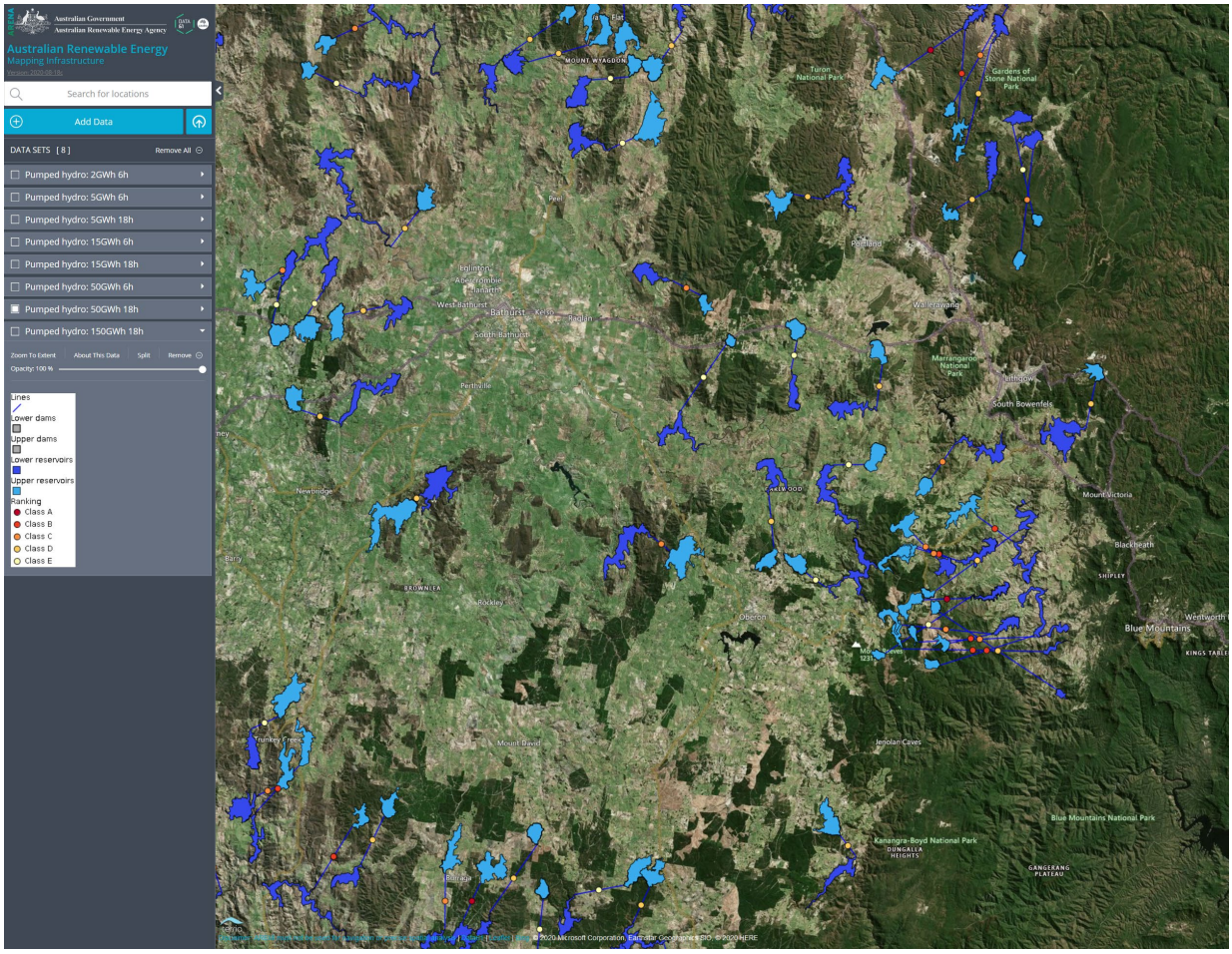

Figure 3: Excellent pumped hydro energy storage opportunities are plentiful. Source: https://nationalmap.gov.au/renewables/#share=s-A9xabtQj0S1tV6dh

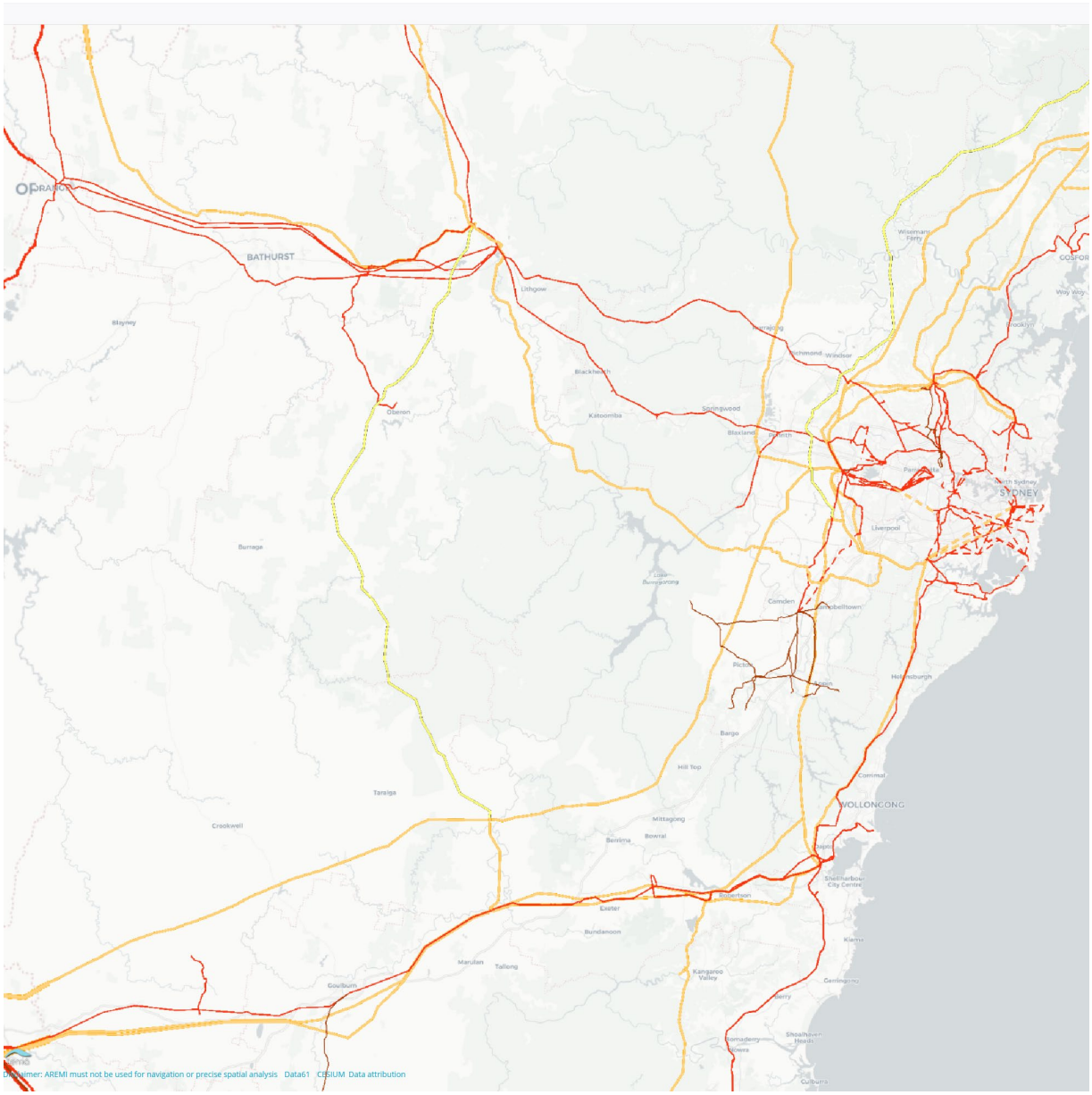

Figure 4: High voltage power transmission. Source: https://nationalmap.gov.au/renewables/#share=s-wuO4GSzivU1OQX6d

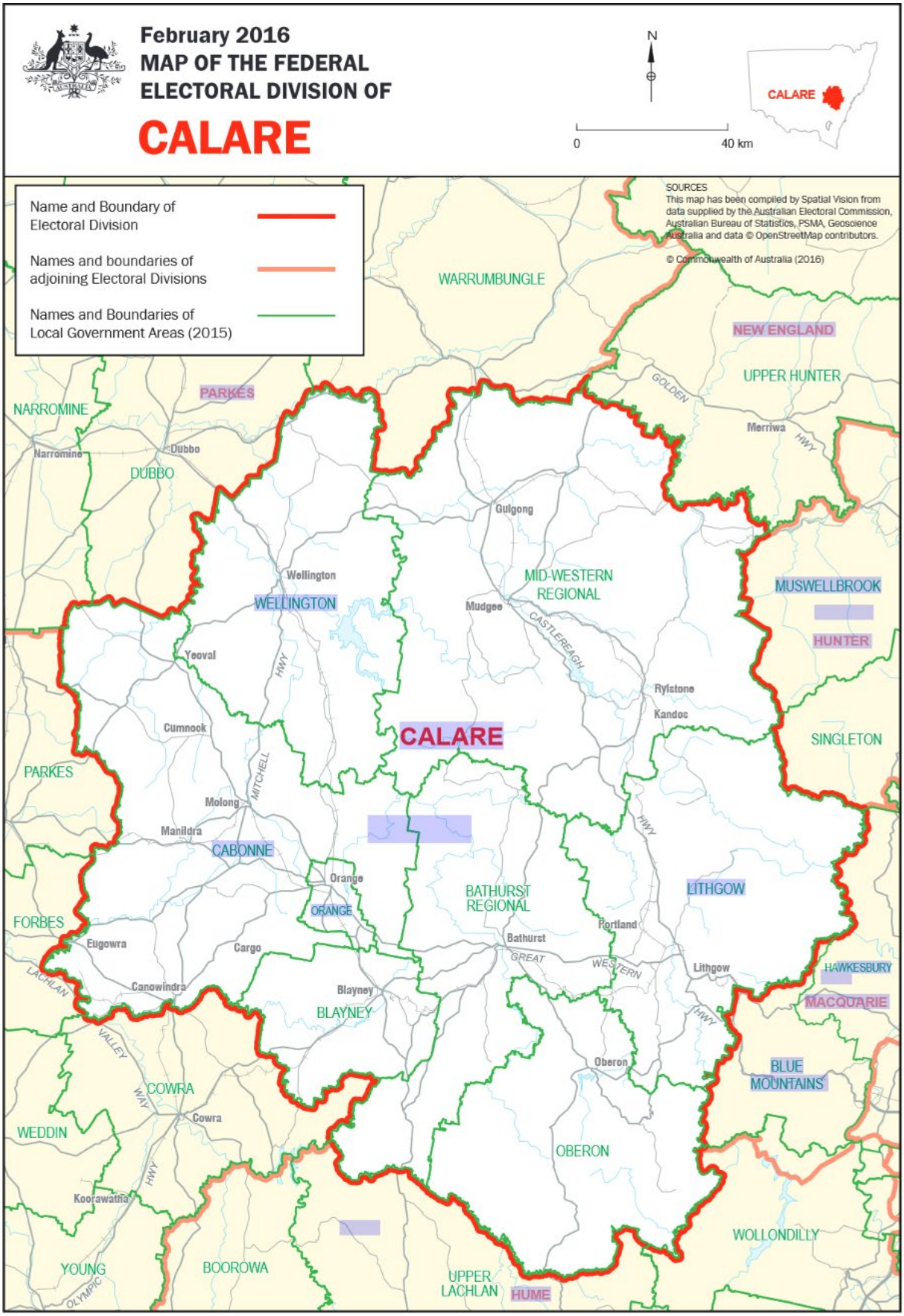

Figure 5: Electorate of Calare. https://www.aec.gov.au/profiles/nsw/files/2016/2016-aec-nsw-a4-map-calare.pdf