Rick Banyard

[redacted] Maryville 2293

[redacted]

Independent Planning Commission NSW

Level 3, 201 Elizabeth Street Sydney NSW 2000

ipcn@ipcn.nsw.gov.au | p: 9383 2100 | f: 9383 2133 |

www.ipcn.nsw.gov.au

The Commissioners

Bylong Mine Proposal

Independent Planning Commission

Bylong Coal Mine Objection

Submission of objection to IPC

Humans have been on our planet for a long time and we have engaged in many activities that have harmed our planet. In recent times there have been a number of activities that have threatened our continuing existence. Examples are diverse however Thalidomide, Agent Orange, DDT, Lead and Asbestos must be high on everyone's list.

There is however only one real activity that severely physically changes the earth's surface irreparably.

That is large scale mining and in particular coal mining.

The extraction of coal from open cut operations leaves huge voids that are mostly not remediated, destroys or terminally disrupts underground water, vegetation and habitat. I ask that the **Commissioners fly over the man made caverns** of the Hunter Coal mines and view the massive scaring of the earth's surface. You will be horrified.

Mining exposes to the world's atmosphere many in ground substances, gases and liquids that have been effectively capped by nature. These liberated emissions, together with the burning of coal is changing the worlds atmosphere. Many use the words "climate change" to explain this.

I trust that the Commissioners and Planners have an educated knowledge of Climate Change and its consequences even if they do not personally hold the same views as a rapidly expanding sector of the community.

The latest information for climate change forecasts indicate that by 2040 that we would see an additional million deaths a year from air pollution around the world and leave 650 million people still without electricity access. **Certainly not a good framework to continue coal mining and coal burning.**

The Proposal by KEPCO for the Bylong Mine continues the very selfish push by a minute proportion of the community that seek very short term gain. In this proposal only a very short 24 years or 1/3 of a typical human life span.

I note the Development Application form dated 22 July 2015 contains irregularities including the lack of land ownership signatures (section 16), the incomplete signature details (section 17) and the ticked boxes at the end do not seem to have been completed. I question how an incomplete DA can be accepted and processed? I note also that the DA lodgement is undated and no DA number has been allocated. I draw this to the Commissioners attention.

I also find it very worrying that if the application form is irregular. How can the community or the projects approval bodies be confident that the documentation provided is complete, accurate and honestly expressed. I believe most reasonable authorities would reject this project on the basis of an irregular application.

The KEPCO Bylong Coal Project is far more than the establishment of yet another earth surface cancer and the obliteration of catalyst farming properties like Tarwyn Park.

The Commissioners must take into account the massive impacts beyond the site boundaries. Changes to the world climate and the atmosphere must be taken into account if the proposal is to be assessed responsibly to mankind.

The site impacts, the local community impacts and the world global impacts have been expressed by others in detailed submissions and presentations.

I would now like to draw the Commissioners attention to the huge negative impact on the Hunter Valley community and especially to the residents impacted by the rail transport of the coal and the coal export terminals in Newcastle.

Almost every tonne of the 124 million tonnes of ROM coal extracted from the coal mine "cancer" at the Bylong project site will travel by rail to the Port of Newcastle for export to end users in Korea and worldwide.

The Commissioners should noted that South Korea has a policy to downgrade coal use. Therefore it is reasonable to ask will this Bylong Mine run for its proposed life, or will it become a stranded asset? AND if it is stalled how will this impact on the mines remediation?

.

EIS "Traffic and Transport Impact Assessment" Section 2.10 and 3.6.3 provides the only information in the total proposal about the rail line to the Port of Newcastle.

That information is:-

- Old and very outdated having been mostly prepared in 2014.
- Is based on the ARTC 2014-2023 Hunter Valley Corridor Capacity Strategy
  (https://www.artc.com.au/uploads/2014-HV-Strategy-Final.pdf)

  That document is designed to:-
  "This 2014—2023 Hunter Valley Corridor Capacity Strategy is the eighth of these annual strategies. It updates the 2013 - 2022 Hunter Valley Corridor Capacity Strategy (2013 Strategy). In common with the earlier strategies, it identifies the future constraints on the coal network's capacity in the Hunter Valley, the options to resolve these constraints and a proposed course of action to achieve increased coal throughput"

  This document purely deals with capacity issues and does not consider the human health safety aspects and environmental issues related to coal transportation. There is no reference to the emissions from coal trains, the strategies necessary to prevent coal loss, both large and minute, from the coal wagons. There is no consideration of the coal wagon design, consist configuration or loco emission reduction strategies.

  The 2014—2023 Hunter Valley Corridor Capacity Strategy describes the network characteristics as:-
  "At the 2014 Hunter Valley system capacity declared by the HVCCC, an average of around 61 loaded trains need to be operated each day, or one train every 23 minutes.
  Train lengths vary from around 1,250 metres to 1,543 metres, apart from the approximately 600 metre trains servicing the Austar mine.
  Trains made up of _120 tonne' wagons are generally restricted to 60 km/h loaded and 80 km/h empty, while _100 tonne wagon' coal trains are allowed to travel at 80 km/h. Because most of the coal trains are _120 tonne wagon' trains, the coal network tends to be limited to a planned maximum speed of 60 km/h in the loaded direction and 80 km/h in the empty direction.
  There are four above-rail operators in the Hunter Valley coal business: Pacific National (PN); Aurizon; Freightliner (as the operator in a joint venture with Glencore) and; Southern Shorthaul Railroad (SSR)."

Clearly this description is outdated and inappropriate to be referenced by Bylong Coal in its proposal.

- There is no reference made in the Bylong Mine documents of the updates and modifications to the ARTC 2014—2023 Hunter Valley Corridor Capacity Strategy. The updates and more recent information can be found at:-
  https://www.artc.com.au/projects/hv-strategy/ .
- The most recent document was released in March 2018.
  www.artc.com.au/uploads/2017-HVCCS-Final.pdf
  This document is based on the Port terminals having a capacity of 209mtpa. Complete with forecasts of considerable increases including the expansion of existing terminals plus the approved T4 construction.

  The main characteristics of the network are detailed as:-
  - "Most of the Hunter Valley coal network is capable of handling rolling stock with 30 tonne axle loadings (i.e. 120 gross tonne wagons), but the North Coast line to Stratford is only rated for 25 tonne axle loads (100 tonne wagons). The privately owned railway to Austar can only accommodate 19 tonne axle loads (76 tonne wagons).
  - Train lengths vary from around 1,250 metres to 1,543 metres, apart from the approximately 600 metre trains servicing the Austar mine. Trains made up of '120 tonne' wagons are generally restricted to 60 km/h loaded and 80 km/h empty.
  - Weighted average coal capacity per train was approximately 8,091 net tonnes in 2016. This compares to a figure of approximately 8,110 net tonnes in 2015. This is the first time that average actual train size has declined since ARTC took-up the network. It most likely reflects the increase in the proportion of coal coming from the Gunnedah basin and diversion of some coal from the Port Kembla coal terminal to Newcastle. Both of these traffics use a smaller than average train size.
  - Average train size as contracted with ARTC is 8,060 tonnes in 2017. Figure 2-1 (in the document) shows the historical growth in average train size and the current contracted train sizes at the Newcastle terminals for the period forecast in the Strategy. While the Strategy is based on the contracted train sizes, ARTC expects that in practice there will be a continuing increase in average train size, though probably not to the same extent as the growth over the past five years.
  - At 2017 contracted volumes and train sizes, an average of around 66 loaded trains need to be operated each day of the year, or one train every 22 minutes. Capacity planning makes provision for this number of trains to peak at up to 87 per day, though in practice capacity exists for this to peak at even higher rates.
  - Estimates of the numbers of paths required to carry the forecast coal tonnages are generally based on train consists nominated by producers under the contracting process, and are assumed to be, on average, loaded to 98% of their theoretical capacity.
  - Train length in the Hunter Valley is limited to 1,543 metres"

This latest strategy does not include specifics of how the coal is to be loaded or how the coal will be constrained whilst in transit to prevent the threats to human health and the health of the atmospheric and aquatic environment from the loss of coal between the mine and the Port of Newcastle.

Every sector of the industry, community and regulators agree that there is coal loss from the coal wagons using the coal train network.

All the research undertaken agrees that there is coal lost from the wagons.

This lost coal ranges from lumps to ultrafine particles and includes solids, dust and liquids. Regulators including the EPA acknowledge that coal escapes from the wagons during transit and have commissioned a number of studies into the issue.

Health authorities and the Hunter Valley doctors certainly recognise that coal can be very detrimental to human health especially via the lungs.

Householders in the Lower Hunter constantly complain about coal dust on the paintwork and dirty washing.

The government operated air quality network in the Lower Hunter constantly reports high PM2.5 and PM10 dust level that are attributed by many to mining and coal haulage.

The “black stuff” on coal wagons and the “filthy discolouration” of coal locos and the highly visible exhausts on track deposits and overloading are clear visual proof of emissions even for an untrained eye.

I would be more than happy to take the Commissioners on an inspection of the Lower Hunter rail corridor to show the issues first hand.

I have done this many times for groups like the Minerals Council, EPA and Chief Scientist. All have gained firsthand experience and recognition of the issues. The inspection tour takes about 3 hours and will provide many opportunities to collect photographic evidence.

The loco emissions are primarily from diesel fuel exhaust emissions due to the crude old technology engines that are largely unregulated by appropriate standards. The EPA is working hard on a new set of regulations for non-road transport.

Diesel emissions from trains are not considered or taken into account despite PM 2.5 data in the EIS and in the EPA input in Final Assessment Report (page 8)

Labour in the mine and for the rail transportation is claimed to be an important economic benefit of the mine however the employment predictions for the mine do not take into account automation and technological advances.

Most of the train drivers, provisioning staff and maintenance activities are provided by the Lower Hunter to the mines. This will detract from the claimed benefits for the Bylong region.

Autonomous trains, extended servicing provisions and robot provisioning will drastically reduce the labour requirements associated with the Bylong Coal Project.

The proposal for the mine does not provide details of labour over time that takes into account the impacts of technological change.

Ore Mines in West Australia have driverless trains and mining equipment in operation now.

Pages 12 to 15 of 2017 HUNTER VALLEY CORRIDOR CAPACITY STRATEGY—CONSULTATION DRAFT https://www.artc.com.au/uploads/2017-HVCCS-Consultation-Draft-Industry-Release-9-Jan-2018.pdf includes the plans for the automation of the network via two new systems known as ATMS and ANCO. The combination of ANCO and ATMS has the ability to "significantly reduce direct human intervention in train operations". These are the first steps in remotely controlling trains and eliminating track side signalling and for the introduction of driverless trains. Again this information is not included in the proposed for the Bulga Mine Project.

The only party that has documented the estimated quantity of coal lost from coal wagons is the community group Correct Planning and Consultation for Mayfield. Their estimates have not been challenged or countered by other parties including the EPA, The Minerals Council, PWCS, NCIG or the NSW Chief Scientist.

CPCFM's estimates are supported by voluminous photographic evidence and by formal extensive complaints to the EPA, ARTC, Transport for NSW and others. The coal deposition studies conducted by the ARTC at the direction of the EPA support the quantities lost.

The major losses are for unloaded wagon in the early stages of their journey. That is normally between the Port coal terminals and to just west of Maitland.

These unloaded loses of approximately 300kg per consist are from:-

- Coal lumps and fines remaining in the wagon after unloading and subsequently falling from the wagon
- Coal train wheel tracking from coal becoming trapped on the wheels, axles and suspension during the unloading process
- Damp and wet coal stuck to the internal surfaces of the wagon drying and becoming free to be drawn out of the top of wagon.
- The increased speed and vibration of the unloaded trains.
- The failure of the wagon doors to seal due to defects or inadequate maintenance thus allowing coal to fall out the bottom.

It is estimated that unloaded coal consists have an average loss of 300kg. For Bylong Coal that means that the total loss is likely to be:-

120 tonne gross wagon less tare of 20 tonne tare loaded to 98% capacity equates to 98 tonnes per wagon or for an average 2017 train of 8060 tonnes train with a 30 tonne axle load each consist would have 82 wagons. Observations show that Ulan trains are currently slightly smaller.

Based on 10 unloaded trains per day that would be 3650 per year.

The coal lost per consist would therefore be 3650 time 300kg or **a horrifying coal loss of just over 1,000 tonnes per year**. Whilst some would leave the wagon as PM 10 and PM 2.5 particles other coal fractions left the wagons to fall on the track and be subsequently broken down and then stirred up by other trains. **This was supported by Harvard Centennial Medal winning statistician Professor Louise Ryan in two studies commissioned by the NSW Environmental Protection Authority to look into the impacts of coal train transportation on air pollution in the Hunter Valley.**

Work done by CPCFM shows the **3kg loss per loaded consist** once the consist has reached the mainline for Hunter Valley coal is very much less than for unloaded wagons due to:-

- the relatively short distances travelled by Hunter coal trains,
- the coal grades,
- the wetness of the coal transported and in some cases the addition of water to the top of coal loads.
- The automatic loading of the coal also helps.

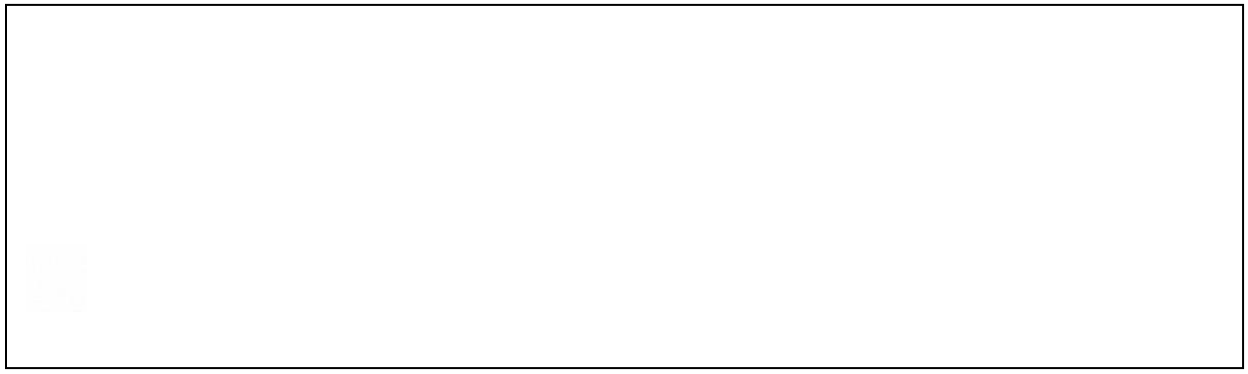
The Bylong coal mine proposal documents nothing about the management and operating practices of the coal trains either inbound or outbound.

Surely it is reasonable for the mine to explain the process that it will use to ensure that its coal will be transported to the export terminal in a safe, professional and responsible manner.

Surely it is also important that the mine provides state or the art quality train checking and management facilities.

Not only should this be considered part of their social licence to operate but it should also form part of the conditions of consent.

The Recommended Conditions of Consent Appendix M in the Assessment Report totally fails to provide appropriate conditions to monitor the transport of the coal to Port.



These conditions must be replaced by a rigorous set of conditions that accurately record, not only the trivial information, but also clearly documents the impacts on the health and environment of the communities subject to the impacts of the coal transportation and associated rail operations.

It is noted that nowhere in the Bylong Mine Proposal is the issue of noise or vibration from the mine's trains using the rail corridor to Newcastle assessed or any strategies explained to reduce the impact of the coal trains operated by the mine. It is only reasonable that the proposal includes such information.

Coal trains have been involved in several serious derailments and incidents that have cause death and injury. Coal train derailments and breakdowns frequently cause major delays and inconvenience to commuters and other freight movement.

The cost of this and other negative impacts must be deducted from the claimed economic benefits of coal mining projects.

For the economy of the State and Australia it is highly important that the Port of Newcastle is connected to the currently under construction Inland Rail Line. One of the proposed routes is via the Sandy Hollow Rail Corridor.

It would be a total travesty if the Bylong Mine impinged in any way with the Inland Rail to Port connection.

I find it very alarming that the Bylong Mine Proposal **does not even recognise the value of the Inland Rail** to their project, or comment on how their proposal will impact on the potentially huge economic benefit to the Hunter, to NSW and to Australia. This in itself should be enough to reject the short life mine.

Recommendations

1. **The Bylong Coal Mine proposal should be rejected outright** as:-
    a. The Development Consent document is incomplete.

    b. The EIS and other documents fail to consider the impact of the mine beyond the Bylong region.

    c. There is no assessment or impact statement provided to detail the impact of train movements from the mine to the Port of Newcastle. The rail line is integral part of the proposed operation of the Bylong Coal Mine.

    d. Noise, vibration and safety of the transportation of the mine's coal from the mine to the Port have not been assessed.

    e. The EIS and other documentation fails to inform the community, planning authorities, regulators and Commissioners of the true and accurate data, reasoning and scientific evidence to a level that justifies the mine's existence.

    f. There is no cumulative impact assessment to explain the relationship of the proposal on the rail corridor, to the mining activities in the Hunter Valley or to the Port of Newcastle.

    g. Given that coal is a major pollutant that is well beyond its use by date there is very little value to be approving the expansion of an obsolete and harmful product.

    h. Coal is rapidly being recognised as one of the World's most harmful products due to its impact on human health, the environment and as a factor in climate change.

    i. Coal mines are a cancer of the earth's surface that is irreparable.

    j. There is a real and major threat to the economic benefit of the Inland Rail Line.

2. In the event that the Commissioners decide to give the Bylong Mine approval or part approval I would like to see the following conditions applied:-
    a. All locomotive and non-road equipment use by the mine be operated under the latest environmental emissions standards as determined by the EPA and other relevant authorities. All equipment is to be upgraded with 180 days of the approved change.

b. All coal wagons engaged in the transport of Bylong Mine coal must deliver 100% of their loaded capacity to the export Port or end user with zero emissions.

c. The requirement that all coal wagons be washed immediately following unloading by means of a high pressure water spray located within 100 metres of the unloading facility.

d. The coal wagon equipment be designed and operated in such a manner that all coal is contained within the dimensions of the wagon and that the wagons have a minimum of 200mm freeboard.

e. Any section of the earth's surface disturbed by the operation of mining is to be fully physically rehabilitated within five years of disturbance.

f. Any water course disturbed is to be fully reinstated within five years.

g. All loaded and unloaded coal trains used in association with the Bylong Coal project are to be Certified as fit to travel before entering the Main line. The certification is to cover the structural and mechanical status of the locomotive and the wagons as well as the security of the coal whilst being carted.

h. An "on the move" train checking station be established on the main line at a convenient location on the route to the Port. The facility would electronically collect and record train data, speed, have automatic weighing facilities, wheel checking facilities, air quality monitors and other relevant equipment. The data recorded for all Bylong trains would be posted in real time on their web site.

i. A Trust fund be established to cover substantiated claims from humans that suffer health issues as third parties that are wholly or partly the result of Bylong Coal Mine activities.

j. That the transport of coal from the Bylong mine is secondary to the demands of the connection of the Port of Newcastle with the Inland Rail Line.

I thank you for the opportunity to make a submission.

Rick Banyard