



New South Wales Government
Independent Planning Commission

TRANSCRIPT OF PROCEEDINGS

RE: MOUNT PLEASANT OPTIMISATION PROJECT (SSD-10418)

APPLICANT MEETING

COMMISSION PANEL: PROFESSOR ALICE CLARK (Chair)
PROFESSOR CHRIS FELL AO
TERRY BAILEY

OFFICE OF THE IPC: BRAD JAMES
PHOEBE JARVIS

APPLICANT FERDIAN PURNAMASIDI
CHRIS LAURITZEN
RICHARD BAILEY
STIRLING BARTLAM

LOCATION: VIA VIDEO CONFERENCE

DATE: 3.30PM, THURSDAY, 16 JUNE 2022

TRANSCRIBED AND RECORDED BY APT TRANSCRIPTIONS

PROF. CLARK: Before we begin, I would like to acknowledge the traditional owners of the land from which we virtually meet today and pay my respects to their Elders past, present and emerging. Welcome to the meeting today to discuss the Mount Pleasant Optimisation Project, SSD-10418, which is currently before the Commission for its determination.

My name is Professor Alice Clark and I am the Chair of the Commission Panel. I am joined by my fellow Commissioners, Professor Chris Bell and Terry Bailey. We're also joined by Brad James and Phoebe Jarvis from the Office of the Independent
10 Planning Commission.

In the interests of openness and transparency and to ensure the full capture of information, today's meeting is being recorded and a complete transcript will be made available on the Commission's website. I request that all Members here today introduce themselves please before speaking for the first time, please, and for all Members to ensure that they don't - do not speak over the top of each other so that we can ensure the accuracy of the transcript.

We'll now begin, and I'd like to hand over to the applicant. Thank you.
20

MR LAURITZEN: Thank you, Professor Clark. My name is Chris Lauritzen and I'm the General Manager for Resource Development for MACH Energy. Together in the room with me is our Managing Director Ferdian Purnamasidi, and Richard Bailey, our General Manager, Operations. We also have Stirling Bartlam, who's a consultant in the environmental sphere. What I'll do is, technology permitting, share our presentation and we can start.

PROF. CLARK: Thank you.

30 MR LAURITZEN: O.K. Likewise, we would also like to acknowledge the traditional custodians of the country we're meeting on today and pay our respect to Elders past and present. O.K. Can we all see this image?

PROF. CLARK: Yes, I can see that.

MR LAURITZEN: O.K., great. All right. So, again, bearing with the technology – so what we propose to do today is to give a bit of an introduction into MACH Energy and the history, to talk about the project location and the approvals history, given an overview of the existing operation, employment and contributions, and then talk about
40 the optimisation project and its employment and contributions. Then we propose to go

through and address some of the IPC-specific agenda items, and we'll complete the presentation with emerging questions.

PROF. CLARK: When you go through the individual IPC issues, would you like us to hold our questions to the end, or can we ask at the end of each section there?

MR LAURITZEN: Look, we're comfortable to go with what you're comfortable with – you know, if you want to ask questions through the presentation, we're quite happy to..(not transcribable 03.35.25)..

10

PROF. CLARK: Thank you. We'll see how it goes, but sometimes it works well if we can just close off on each separate issue with any questions we might have, but let's see how it goes. Thank you.

MR LAURITZEN: Thank you. All right. So we've already introduced ourselves. There's a bit of a bio for the three of us, which you can look at in your leisure, but essentially my role is to look after major approvals and resource development. Ferdian obviously runs the entire business as managing director, and Richard runs the operation onsite. I will just hand over to Ferdian to give you some background on our major shareholder.

20

MR PURNAMASIDI: Thank you, Chris. Good afternoon, Professor Clark, Panel Members, and IPC officers. My name is Ferdian Purnamasidi, I'm the Managing Director for MACH Energy Australia. Thank you, first of all, for allowing us to present the Mount Pleasant project for you today.

Let me first of all begin by giving you some background about MACH Energy and its shareholders. MACH Energy is largely owned by the Salim Group, who has a controlling stake in the Mount Pleasant project. The Salim Group is one of Indonesia's largest conglomerates. It was actually originally founded in the early 1970s and has since become one of the largest integrated food companies in Asia. It is most known through its entity called Indofood, which is the world's largest instant noodle producer.

30

The Salim Group also owns the largest network of convenience and retail stores in Indonesia. Now, aside from these businesses, Salim Group also owns other various investments, including power generation, telecommunication, and resources.

In Australia, the Salim Group has invested in multiple projects for over 15 years, predominantly in the mining sector, but also..(not transcribable 03.37.44)..and this provision of packaged food products. The Indonesia-Australia Comprehensive

40

Economic Partnership Agreement, or otherwise known as IACEPA, was a bilateral agreement that was signed by the two countries back in March 2019, which created the then workforce early in Indonesia to unlock the vast potential of bilateral economic partnership.

10 Since the commencement of our operations in Mount Pleasant, we have actually been engaging with various stakeholders, including the Department of Foreign Affairs and Trade, the Indonesian Consular and Embassy offices, and multiple Indonesian business leaders as well. So today we hope we'll be able to address any of your questions and to be able to continue to demonstrate our ability as responsible operator of the Mt Pleasant Project. And I will now hand over to my colleague, Richard Bailey, who will describe our existing operation.

MR R. BAILEY: Good afternoon, Professor Clark and fellow Panel Members and officers. I'm Richard Bailey, General Manager of Operations at the Mount Pleasant site. So just a look at the timeline. Since acquiring Mount Pleasant asset in 2016, MACH Energy moved quickly to complete the construction of the project and commence operations.

20 In 2018, MACH performed a strategic partnership with Japan Coal Development Australia, which represents a group of major coal consumers in Japan. MACH has initiated two material changes or modifications to the original development consent. The first one, our Modification 3, extended the life from 2020 to 2026, and extended the toe of the external waste emplacement to enable and facilitate and improve landform design for the site, and we'll show you some more on that as we progress.

30 Modification 4, the second major modification, dealt with the relocation of the original rail alignment, so the rail that connects us to the external rail network, and it located it away from our adjacent – the Bengalla Mine. It was across land that Bengalla will ultimately mine, and that relocation is now complete.

Now, the Mount Pleasant operation is located west of Muswellbrook, near the junction of the Muswellbrook-Ulan rail line, and the main northern railway line that runs through New South Wales. This location is proximal to the Port of Newcastle. The project site is in the northern part of the Hunter Valley mining precinct. MACH exports coal from both major ports within Newcastle, primarily to Asian customers, including Japan, Korea and Taiwan.

40 The project is located around three kilometres northwest of Muswellbrook and five kilometres southwest of Aberdeen. It's also approximately 18 kilometres from Denman in the Hunter, 17 kilometres from Scone, and 15 kilometres from Singleton.

The mining area for Mount Pleasant is surrounded by neighbouring operating lines and tenements, essentially.

The Mount Pleasant operation was originally approved in 1999, but wasn't developed by the owner at that time. The original approval incorporated multiple open pits, three outer pit waste rock emplacements, and multiple final voids. Mining was commenced in the southwest-east corner of the site, and progressed north and westwards for – to the north, around halfway across the deposit. It currently remains south of Castlerock Road, which is a public road which bisects the site.

10

In general terms, the mine is developing to the northwards, and once it reaches the northern extent, it will essentially progress very slowly westwards over the remaining life of the mine, and it's generally and almost completely, I think, inside the footprint of the current approved mining area for Mount Pleasant under the current approval.

Much of the land outside Muswellbrook is mine-owned and supporting tenements. Mount Arthur and Bengalla own the majority of the land south of the project. Mangoola and Muswellbrook Coal own land to the west. Dartbrook owns land and tenements immediately to the north of the mine, and between the mine and Aberdeen.

20 MACH also owns land both to the east and west of the project.

There is only one element of the project – it is a road on the northern end of the project – that's located on private land. Look, we do have an alternate route for that road, diversion, should we not be able to secure that land or come to terms with the landholder.

There's a December aerial just – that illustrates the key features of the existing mine, including the mining operation itself, the eastern emplacement and infrastructure, so the two opencut features you can see centrally on the plate, the top one is the

30 Mount Pleasant site and the bottom one is the Bengalla site. You can also see at the bottom of the plate just the northern extent of the Mount Arthur mine, and right on the northern edge – it's not clearly evident, but you can see on the northern side, at the top of the plate, the site infrastructure for the Dartbrook underground coalmine.

In terms of employment contribution, the purchase and initial establishment of the mine was approximately \$1 billion Australian. The operation employs 440 people, including MACH employees and contractors. Significant expenditure we make into the Muswellbrook Shire, Hunter Region more generally, and New South Wales. A lot of community contributions and sponsorships, including our Aboriginal Community

40 Development Fund.

Our Rail 2 construction project – so this was the result of our Modification 4 – we’ve recently spent around \$240 million on the development of that alternate rail system. The operator has contributed approximately 200 million in royalties to New South Wales since commencement. We utilise principal contractors Thiess and Sedgman to conduct our mining and coal-processing operations at the mine.

The mine is operating at the full approved capacity currently, and ourselves and our key contractors have very strong local procurement focus, trying to focus on purchasing items, et cetera, from the local area.

10

Mount Pleasant also has a very – an Aboriginal Community Development Fund, which we’ve run since 2006, and that contributes a significant amount of money to a range of projects for the local Aboriginal community.

I’ll just hand over to Chris to talk through the project overview.

20

MR LAURITZEN: O.K. Thank you, Richard. So the Mt Pleasant Optimisation Project is so named because it’s effectively a consolidation and optimisation of the current approved mine. The development will be more focused between the existing infrastructure area and the eastern mining lease, and a large approved development area associated with the western north pit and associated placement, which is in the current approval, will no longer be developed. I’ll just wiggle my mouse over that area just to show you this zone here, that’s patched white and tan, is that relinquishment area.

30

So the relinquishment area basically facilitates project in-fill areas without increasing total land disturbance. The relinquishment areas are high-habitat values and would result in a net positive biodiversity outcome. The higher single-waste rock emplacement reduces the number of out of pit emplacements. The Western Link Road is not required – that’s in the current consent. The Northern Link Road would be realigned. The proposed mine water dams maximise the use of approved disturbance areas.

The project integrates with our existing infrastructure and maximises the use of the existing mine’s emplacements, and uses the HP modules incorporate ..(not transcribable 03.48.08)..so the new CHPP modules on that don’t contribute mine materials to the tailings dam, so that material gets..(not transcribable 03.48.18)..

40

The staged nature of production provides a managed expansion, and the project life to 2048 provides for certainty for MACH Energy, our suppliers, customers, the community and our workers.

The geomorphic design and the final void shaping integrates with the existing topography and a consistent pit floor and single emplacement reduces the number of final voids. The single deeper final void reduces void area and catchment, and you can see on the image to the right, the original approval had essentially three final voids – we’ve consolidated that to one.

10 The project will require \$950 million in capital expenditure, and the project expansion will occur as other regional mines deplete existing reserves. I guess that point is probably more poignant today with BHP’s announcement regarding Mount Arthur. We’ll have an average of 600 employees, and a peak of 830 fulltime-equivalent employees when we reach full production.

20 We will have multiple construction phases with the additional workforce demands, so the construction peak workforce will spread over a number of events, rather than a single event. The project will contribute \$2 billion in royalties to New South Wales, or \$684 million on a net present value basis, plus the applicable State and Commonwealth taxes, and of course the voluntary planning agreements payments to Muswellbrook Shire Council and Upper Hunter Shire Council, and of course we will continue to contribute to and sponsor community organisations.

So I guess that brings us to the end of the project introduction. If you did have any questions on that material, I’m happy to take those before we address the IPC specific agenda items. I think you’re on mute.

PROF. CLARK: That’s the first time today. Chris or Terry, do you have any specific questions on the intro, or are you happy to proceed to the specific IPC agenda items?

30 MR T. BAILEY: I’m happy to keep moving, Alice.

PROF. CLARK: Chris?

PROF. FELL: Same here.

PROF. CLARK: And the same for myself. Please continue.

40 MR LAURITZEN: O.K., thank you. So I guess the first topic we’d like to discuss is greenhouse gas emissions. I guess, you know, we are an opencut mine, of course, and in comparison to underground mines in New South Wales, the gas contents in the project coal seams are low. We have a comprehensive database of coal seam gas

content and composition testing, so this data is based on a very robust dataset, and I'll explain this a little bit further on the next slide.

I guess the two grabs – the first grab is – basically shows the relationship between gas content and depth. Obviously gas content is increased with depth, noting that our pit is about 300 metres deep at its very deepest, and really we are talking about four cubic metres per ton at that depth, which is quite a low number.

10 The other graph shows how composition – in other words, essentially the ratio between methane and carbon dioxide – changes with depth, and basically the first 200 metres in depth is comprised of a mixed-gas zone, where you'd have initially a high proportion of carbon dioxide. As you go deeper, the proportion of methane increases until you get to about 200 metres, where the gas is essentially a hundred per cent methane at 200 metres deep.

20 So have had – we have – like all analysis, we have been on a journey with our gas emissions estimation. The earlier work that was done by Rio Tinto basically gave us a CO₂ equivalent per ROM tonne factor of 0.012, and we used that analysis in earlier environmental assessments, particularly for Mod 3. However, over the course of time, we have looked at this data, and recently we had Colbert(?) Energy re-evaluate our dataset and come up with a higher factor of 0.02 CO₂ equivalent per ROM tonne, and basically that number is still quite low, particularly when you compare it to the default factor for opencut mining in New South Wales, which, as you can see on the graph, is 0.061.

30 So we acknowledge the nature of the draft greenhouse gas conditions, but, you know, obviously that does introduce some economic risk associated with potential changes in greenhouse gas offset costs. However, any scheme that features a cap in trade system has got similar economic characteristics and risks. We expect that any such conditions would be progressively also applied to competitors in other mines in New South Wales, and because we have this low gas contents and a low strip ratio mine, and we plot very well on the global cost curve, we believe our project is in a strong position relevant to these competitors.

So this slide also illustrates the comparative greenhouse gas intensity of various coal projects with respect to scope 1 and scope 2 greenhouse gas emissions per tonne of ROM coal produced, including our project. So the orange bars are the IPC major approved coal projects from 2020 to the present, which uses available public domain data to derive this.

40

The grey bars are other potentially relevant local projects such as Mount Arthur and Bengalla, and the disparity between the greenhouse gas intensity of underground and opencut projects is clearly evident in this diagram. I guess the other thing that is clearly evident is that the optimisation project plots very favourably against these other operations.

10 If we talk a little bit about air quality and – or amenity and general air quality. A major design objective for the project was to minimise any change to the existing approved envelope for air quality and noise emissions, and a key project management measure for both air quality and noise emissions to target the design objection is that the staging of major production business, as you can see on the bar chart, how the long period across which the production increase is staged.

So the staging does involve the doubling of the project ROM coal production, but that's over a period of approximately a decade, and along with many other noise and air quality mitigation measures, and the progressive development of the eastern emplacement, this staging ramps up production as the mine moves to the west, and we'll show that graphically on the next slide.

20 So you can see on this slide, it's basically a pictorial representation of the..(not transcribable 03.56.40)..and the darker blue colours represent ROM coal production up to 21 million tonnes..(not transcribable 03.56.47)..and, you know, they are at the distal side of the – of the mine envelope, and, you know, by the time we increase the production to 21 million tonnes, the mine is already advanced a significant distance away from Muswellbrook, and also the emplacement, the visual bund or the waste emplacement landform, has also grown to provide additional shielding for that area.

30 So the intermediate blue colour represents a production of 15.75 million tonnes per annum, and then the light blue, of course, is production at the current rate of 10.5 million tonnes, which is what the operation is currently doing.

The other very important consideration is the relative approval timeframes of currently approved mines in the area. For example, Mount Arthur is currently approved to 2026, and we've heard the announcement today that BHP intends to seek another four years beyond that 2026, which would take them to 2030, and then close the mine, so I guess if you look at this graph – if I can trust the IT and grab my pointer - can you see my pointer wobbling there?

40 PROF. CLARK: Yes.

MR LAURITZEN: So basically today's decision indicates that this very large zone up here, which is the Mount Arthur mine, is going to continue basically to about here to a similar sort of timeframe as the Hunter Valley Operations South, which is their approval, and enclosed, so what you have is a very, very significant drop in Hunter Valley coal production happening from 2026 through to 2030, and coincidentally that's at the same time as Mount Pleasant is expanding, so our expansion doesn't happen until some major declines in coal operations in the district occur.

- 10 And the other point, of course, is that these other major operations, particularly around Muswellbrook, i.e. Mount Arthur and Bengalla in particular, are also moving away from the time..(not transcribable 03.59.07)..town, from the town of Muswellbrook, over this period.

And just to talk about air quality in particular, and all this, the current operation includes sound-attenuated equipment, so we specifically modify the equipment to attenuate the noise that it makes, and the enclosure of all our key fixed plant to address noise emissions.

- 20 A wide range of existing dust-emission practices will also continue to be implemented. The site already implements proactive and reactive dust mitigation measures based on predicted and real-time monitoring emissions by an air-quality management plan. The site also applies a surfactant on inactive exposed areas to reduce dust emission. And under our environmental protection licence, the site also completes the – it completely shuts down dust-generating activities under specific combinations of wind directions and dust concentrations.

- 30 So the air-quality management plan specifies the relevant green, amber and red triggers, and associated site responses for each individual real-time air-quality monitored site, and the draft consent conditions as proposed by the Department continue these current requirements for both proactive and reactive measures based on real-time monitoring of dust conditions.

Now I just wanted to talk a little bit about the dust suppression on trains issue. The ARTC, which is responsible for the majority of rail operations in New South Wales, and New South Wales EPA, have conducted many studies on coal train dust in New South Wales, and the EPA website, which is referenced at the top of the slides, of the history of those studies, the key findings and copies of the actual studies themselves.

- 40 So in summary, the EPA concluded that coal trains and freight trains had similar emissions. Projects in the Hunter Valley are not required polymer dust suppression or

cover coal wagons, but notwithstanding, we have just completed our new stage 2 rail loadout facility, and that does include the latest technology in coal loading.

So the Independent Planning Commission also raised a query regarding minimising the visual impacts of the eastern emplacement, and MACH Energy has, from the outset of mining operations, recognised the importance of landform design and progressive rehabilitation to minimise the impacts on Muswellbrook. Our Modification 3 involved the development of a more complex emplacement toe and facilitated the natural-looking landform feature evident in this photograph. And I
10 guess in particular, when you come to the site, it's a lot easier to see it in person, but you'll notice the variability of the landform and the fact that, you know, ridges and valleys are designed into the landform rather than older approaches, which just had a flat planer, and obviously engineered landform. This is called GeoFluv. It's also called, you know, natural landform design, which we've been able to implement from the very beginning.

So the Mount Pleasant operation basically waste-drop in smaller lifts, and these lifts are designed to minimise those of reshaping. That's a key difference in visual impact, because you don't see, you know, massive tiers of spoil stacked on the horizon – you
20 just see a thin skin. The method means the operation can rapidly form the complex geomorphic features and progressively topsoil and seed new areas as they become available. The aerial photograph illustrates the complex forms and rehabilitation areas at different stages of revegetation..(not transcribable 04.03.25)..

So this is a – these two photographs are viewpoints from inside Muswellbrook. It's actually on the corner of St Heliers and Sowerby Street, and basically you can see it's the result of our focus on the landform design and progressive rehabilitation in late 2019 and late 2021, so over a two-year period when viewed from Muswellbrook. The upper photo, of course, is 2019, and you can see basically raw spoil, and then on the
30 2021 photograph you can see that spoil has all been shaped and the ridges and valleys have been designed into the landform, and you've got vegetation growing on the land.

So these two slides illustrate the complex and varying nature of the project geomorphic landform and the proposed revegetation and future land use. The landform design, which is based on the geomorphology of natural drainage lines, improves not only the visual appearance but also the long-term stability of the landform. The vast majority of the project landform would be revegetated to native vegetation, and potential agricultural uses would be limited to the infrastructure areas and the following emplacement areas, so essentially, that's the zone further to the
40 west. The potential agricultural use of the large landform and the area around the final void would be native woodland.

So, again, from the same spot in Muswellbrook, these two visual simulations illustrate the outcome of the project revegetation of this geomorphic landform in views from Muswellbrook, so the – I guess the first picture is 2034, so before the mine closes in 2048, and then post-closure beyond 2048 on the lower photograph.

10 So we'll just talk about the lighting. The Department's recommended conditions regarding lighting is similar to the existing conditions under DA92/97, which is our current approval. The Mount Pleasant operation already operates under a visual impact management plan, and we also built a number of structures, including structures on the Rail 2 Wybong Overpass, to limit operational light spill. You can see in the picture there, there is a large hoarding that's built along the railway lines to stop the lights from trains shining down. In addition to this, as the eastern emplacement increases in elevation, lighting effects to the east are attenuated by it.

20 We'll talk about Kayuga Cemetery now. The State Heritage listed Kayuga Cemetery is located well north of the project, in Dartbrook's tenements, and while the draft conditions do specify a 10-millimetre per second vibration limit for the cemetery, in fact a more stringent 5-millimetre per second criteria applies to private residences which actually sit between the project and the cemetery. So we're confident that blasting can be managed to avoid any impacts on the cemetery – it's a long way away.

30 All right. So onto Aboriginal heritage. The Aboriginal Cultural Heritage Assessment, or ACHA, described a number of sites mentioned in earlier studies that had not previously been registered in AHIMS, which is – sorry for the acronyms, but it's the world we live in – the Aboriginal Heritage Information Management System, that's AHIMS. So the site which you made an inquiry about, which is MTP457, wasn't raised by any members of the contemporary Aboriginal committee during conduct of the project ACHA.

When we actually look at the site location for this particular site, it plots below the eastern emplacement to the south-east, located on a steep slope overlooking the highly modified Hunter River floodplain, and the project cultural values report did not identify any sites or cultural areas that required specific impact management measures or rectifications.

40 Moving onto water planning and post-mining take, post-mining water takes would be in perpetuity as the single final void would act as a groundwater sink, and consistent with the aquifer interference policy, relevant water licences would be retired to account for post-mining takes in perpetuity, and as you can see on the table, MACH Energy holds sufficient licences to account for the post-mining water take, and those licences

requirements are negligible compared to the total number of licences in the water sources concerned.

So the study is conducted following the EIS reply in the post-mining predictions of final void water volume behaviour. These studies indicated that a final void water-body equilibrium would occur at about 75 metres above sea level. The post-mining water takes would have negligible effect on the Hunter River, as you can see by the diagram.

10 On the social side, studies conducted in the EIS indicate that 33 per cent of the workforce reside in the Muswellbrook Local Government area, 21 per cent in Singleton, and 16 per cent in the Upper Hunter Local Government area. The project operational workforce would build progressively from 2023 to 2041. Growth is therefore spread over two decades. It's anticipated that this growth would occur as other mines are expected to deplete economic reserves and..(not transcribable 04.10.11)..close, and again, with BHP's announcement, you can see there are 2000 employees on the Mount Arthur site – our employee numbers are going to grow from 400 to ultimately 800, and all of that is going to happen after – essentially after BHP is well and truly into winddown mode and beyond their closure.

20 While we do provide opportunities for the mine workforce to use some residence we own, we don't purchase properties for workforce accommodation, and that's typically the case for most mines in New South Wales – it's really only the remote Queensland towns that build villages and accommodation centres for employees. Clearly that has social impacts as well. We draw our employees from the local towns, where they already live.

I must say that MACH Energy is generally satisfied with the Department's assessment, or we think they've got a good job of synthesising EIS mines. The project is a ground-filled optimisation modern system, major operating coalmine, and as such the project is consistent with New South Wales Government policy and represents a major low-cost mine, that would be expanding as other mines are expected to deplete their economic reserves and continue to close.

O.K. So that's really the end of our presentation. I just wanted to make a couple of remarks before we close. MACH Energy has designed the project to comply with the various New South Wales regulatory requirements, and we agree with the Department's assessment that it's in the public's interest to approve the optimisation project. However, we recognise that some other stakeholders are likely to have some residual areas of concern, and we request that to the extent that there are other matters arise during the remainder of the determination process, particularly matters that may

be material for decision-making that process, that MACH Energy be made aware of those matters and be given an opportunity to respond and/or provide clarification.

In a similar manner, if the IPC considers that there are any changes to the Department's recommended conditions that are required, MACH Energy also respectfully requests an opportunity to review any proposed changes and comment on the workability for the site.

10 Thank you very much for your time. I know it's a lot to digest, and, you know, obviously the EIS and all the submissions and all the responses are a very large body of material. There's a lot of material that we've just covered quickly today. We're on a journey. We know there's a site visit and public submissions coming up, and we're certainly ready to assist with any further information that may be required by you. Thank you.

20 PROF. CLARK: Thank you, Chris. I will in a moment open for some questions that we have. We've had a good chance to read through a great deal of the information that has been submitted to us, and have had a number of, I guess, points that we want to close off on. Chris, did you want to lead us off with particular questions for the applicant there?

30 MR T. BAILEY: Thanks very much, Chair. I guess I get to open the batting, so to speak. But look, it's some questions about the fugitive emissions. In the second decade of your proposed operation, the fugitive emissions go up by a factor of 3. If in fact you look at the amount of coal you're mining during that period, that doesn't explain it. It's simply that you're mining coal from seams that have a significantly higher content of gas, higher methane content in that gas. In looking at whether there could be some way of reducing the situation, we probably need to have a little more information in the IPC, and I just wonder whether it would be possible to have a table that gives us what seams are being addressed each year, and associated with these seams, their depth, their thickness and the methane content – or, sorry, rather than the methane content, the gas content. I just wondered if you could provide that to us. I realise you've got about a hundred points on the various charts that you've shown us today – I'm sure they'll be very helpful in coming up with that information.

40 MR LAURITZEN: Yes, certainly, we can provide that information. I can give you a little – I can give you some preliminary commentary on that now. So I guess for those of you who know a little bit about geology - and those who don't, I apologise to those who may not be familiar – essentially the Whittingham coal measures are multi-seam, so there are multiple seams, but the seams essentially differ from the east to the west, so you're correct, that the deeper seams have higher gas contents than the shallower

seams. But I want to stress that even the deeper seams – you’re right, in terms of percentage increase, there is an increase, but the absolute number of gas contents of the deeper seams is lower of the whole basin. If you get to 4 cubic metres, it’s - - -

PROF. FELL: I think we appreciate that, and having the information will be very helpful to us.

MR LAURITZEN: Yes.

10 PROF. FELL: So thank you.

MR LAURITZEN: All right. I think it’s best that we provide the information rather than try and explain it..(not transcribable 04.16.36)..will give you some in a little bit more detail..(not transcribable)..

PROF. CLARK: Thanks. Chris, it’s a little difficult to hear you. I’m not sure if it’s – I’ve got my volume up full. I’m not sure if others are having the same thing, but perhaps if, for my old ears, you could speak up a little bit, please, that would be - - -

20 MR LAURITZEN: Is that better, because we’ve got the - - -

PROF. CLARK: That’s better, thank you.

PROF. FELL: I’ll move a little closer. There’s a trick.

MR LAURITZEN: Our microphone is a bit far away.

PROF. CLARK: Thank you. Thank you for that. Chris, do you have any follow-up questions there, please?

30

PROF. FELL: No, I think not. If we can get that information that would be extremely helpful to us.

PROF. CLARK: O.K. We can take that on notice. I’ve got a question around the trains and the wagons, and it’s a question that I’m just interested if you considered covering the wagons, and what consideration was given to that, yes, and obviously around dust mitigation is where I’m looking at there. Would somebody like to address that?

40 MR LAURITZEN: I can address that one as well. I think that the fundamental issue is that it doesn’t help - you know, those EPA studies show that freight trains and coal

trains create the same emissions, so logically covering the coal wagons or spraying polymer on the coal wagons isn't likely to change the dust problem significantly. I think it's something of a myth that coal wagons in particular generate more dust.

PROF. CLARK: Thank you, Chris.

MR LAURITZEN: So I guess the best thing would be to direct the Commission's attention to those studies that EPA and ARTC have done.

10 PROF. CLARK: Yes, I'd appreciate that. Thank you for that. Any of that information, of course, straight to Brad. Yes, thank you. My next question is around the long-term stability projects that you have of the final void wall and the stability in particular. What kind of modelling has been done about long-term stability post-mining of the pit walls?

MR LAURITZEN: O.K. So just to clarify, are you talking about the pit wall or emplacement area or both?

PROF. CLARK: The final void. The walls of the final void.

20

MR LAURITZEN: O.K. Look, we might give you some specific information on that, but in general terms, geo-technically, the factor of safety of all of those structures is very high, because in fact, you know, the GeoFluv treatment is actually done to the void surrounds and also to the landform itself. MACH Energy has also worked with Newcastle University, and they have run their Siberia modelling software over it, where they simulate thousands of years of rainfall, and - - -

PROF. CLARK: So that's erosion on the geo-form on the outside, is it? Or are you talking also about the void walls?

30

MR LAURITZEN: Well, on everything.

PROF. CLARK: I would be interested to have some more information on the long-term stability projects of those, so in particular of the pit walls.

MR LAURITZEN: Yes, sure.

PROF. CLARK: Thanks, Chris. Chris Fell?

40 PROF. FELL: Very quickly, I wonder if we could take down the screen display so we can see the group more clearly.

MR LAURITZEN: Sure, yes. I just thought you might ask a question where I need to refer to the – I'll just stop that share.

PROF. CLARK: We can open that up again if we need to. So, Terry, do you have any questions there at the moment?

MR T. BAILEY: Thanks, Chair. I did just want to come back – and we don't have to put the presentation back up – but just to touch, I was going through, looking – and so
10 it was the question around Aboriginal cultural heritage and the spiritual place, Chris, and my curiosity – and it's on, I think, slide 35 of your deck, just so that you're aware – so the rationale for management strategy of this one, you've noted, is offset by other measures. So you've acknowledged, appropriately, that there's a loss of the site, and then you've got an offset by other measures, so I just wondered if you could outline what that "other measures" component looks like in terms of that offset?

MR LAURITZEN: I think we might get back to you on that one. We have other, I guess, historical information on that site that will be quite useful when considering its
20 veracity.

PROF. CLARK: Thank you. So you'll take that one on notice, Chris?

MR LAURITZEN: Yes, please.

MR JAMES: Sorry, Alice, can I just ask a quick question.

PROF. CLARK: Yes.

MR JAMES: Chris, on that slide, I think I recall it said there was an Aboriginal
30 heritage impact permit already issued for that item. Is that correct?

MR LAURITZEN: Yes, that's right. I mean, essentially – I'd prefer to get back to you on – take that one on notice - - -

MR JAMES: Yes, sure.

MR LAURITZEN: - - - because I don't want to sort of give an answer off the cuff.

PROF. CLARK: Thank you. I appreciate you getting back to us on that. I've got a
40 question around the level of cooperation that might be required with adjoining mine sites, and in particular around, you know, areas that have impact on social amenity,

and also, I guess, in particular, again, around blasting, when blasting happens at the different mine sites. What level of cooperation is envisaged there and how is that managed?

MR LAURITZEN: There's already a high level of cooperation. There's a system where, you know, the community are notified about blasts that all the of three mines do. I might actually ask Richard to answer this one, because he lives and breathes it, if you don't mind.

10 PROF. CLARK: Thank you.

MR R. BAILEY: No, that's fine. As Chris mentioned, we have a current system to coordinate blasting between, essentially, the three mines – Mount Arthur, Bengalla, and Mount Pleasant – but obviously we're very close to Mount Pleasant. So to the extent we can, particularly if there's going to be a road closure, we'll coordinate our blasting time so that we don't disturb the public more than we have to. And also we notify each other, both, you know, in terms of location, timing and expected impact of blasts, for all of our blasts so that we can coordinate and, you know, minimise that disturbance of blasting on the community.

20

PROF. CLARK: Is that coordination and management formalised or is it an informal arrangement?

MR R. BAILEY: Look, no, it's a formalised – we have a formal arrangement with Bengalla, but we have a sharing arrangement with the other mines, so even Mangoola, to our west, they're a number of kilometres west from us, there's a formal sharing arrangement, so a formal blast notification that comes through, saying, you know, where the blast is going to be, what timeframe it's going to go, et cetera.

30 PROF. CLARK: And has there been any - - -

MR R. BAILEY: And similarly with Bengalla and Mount Pleasant. And, look, that's formal, it's formalised through our website, it's on the local council website, and it's communicated – we actually text – send a text notification to all of our near neighbours and interested community members on the blast timing, whether it's been delayed, et cetera, et cetera.

PROF. CLARK: And that's on your website?

40 MR R. BAILEY: Yes, that's on our website, and we have a specific text notification list as well for people that want more information and more up-to-date information.

PROF. CLARK: Thank you. Thank you. That's very useful. Chris, yes.

PROF. FELL: Sorry, I'd like to ask a question about air quality. Basically, the national environmental protection measures with respect to air quality are tightening with respect to PM2.5, the smaller particles. Now, I've noted that you've said that increased production in your mine, you are actually doing things to ensure that you lower the level of PM2.5 and also PM10. I wonder if, in a few words, you could explain the key measures so that a person in the public could explain what you're doing against what you do now to actually achieve this for a higher throughput, and whether it's impacting the PM2.5 or the PM10. Sorry, that's a bit of a mouthful, but we'll work on it.

MR LAURITZEN: The major dust emission of the mining activities is PM10 rather than PM2.5, so that's the - - -

PROF. CLARK: Could you speak up, please.

MR LAURITZEN: Yes, sorry. Could you hear me now.

PROF. CLARK: Yes.

MR LAURITZEN: Sorry, I don't – I'll have to sort of aim at the microphone a little bit. So the major emission from mining activity tends to be PM10 rather than PM2.5. We have – interestingly, we've had this discussion with Council, Muswellbrook Shire Council, and we have monitors that are proximal to the mine that show – that measure both PM2.5 and PM10, and there are monitors within Muswellbrook township that measure both as well, and when you look at the historical levels, you'll see a very significant spike in PM2.5 in winter, and that is from wood heaters, of course, which, you know, people still want to use in town, and we had – and when you look at the same period, the winter period on our monitors, which are closer to the mine than the town, there's no spike, there's no PM2.5 spike. So it's very clearly and empirically coming from, you know, emissions within the town itself, and they're most likely the wood heaters. So that's one thing.

In terms of measures that we can do to reduce our footprint, I might hand you to Richard, because he lives and breathes that, but we did allude to it in the slide – you know, we had that tiered system, we had, you know, material that we spray on exposed faces, and we have shutdown criteria.

MR R. BAILEY: Yes. So in terms of the onsite activity, look, we manage our equipment operation very carefully in terms of both how we operate it but also placement. We use – extensively use water carts onsite for areas to use on our pour routes, to also crust areas that we aren't using, so areas that have been disturbed, we'll spray with water to make sure they're crusted, so there's limited lift-off of dust. We have a very high proportion of water carts per – compared to the other operating fleet, to ensure that we have, you know, really, really good coverage. We use polymer as well to assist. We use polymer sometimes on roads, but mostly on areas that we've disturbed, particularly in the upper sequences of the mine where, you know, topsoil or
10 fine material may be disturbed or may be created. So we use polymers to secure those areas, and that's really particularly to protect against windblown dust, so dust that's generated or increased through wind pickup in the operating areas.

Look, I think we modify the location of equipment, so we have a real-time dust-monitoring system, and access to the EPA monitors in the area as well, and we have a tarp system, if you like, so a system where, you know, we have a series of flags that are raised within our system 24 hours a day, seven days a week, so that if there's anything significant dust-producing activity, we know the location of that, we can locate it, and modify those activities, and we know when we are increasing the
20 dust load or particulate load in and around the mine site in and around our network.

And we also have – look, Mount Pleasant is the only site, I think, in New South Wales, but certainly the only site in the Hunter where we have a shutdown condition, and that specifically will have winds from the northwest, and we have an increased PM2.5 load over a rolling 24-hour period. So once the EPA monitor reaches a level of 44 micrograms, we shut the mine, and we shut the mine until that 24-hour rolling average figure averages down below that figure and then we can restart. So, you know, that impacts our – that mitigates that impact.

30 Look, you know, through the drought period, we had quite a few occurrences of reaching that limit, and, look, it was mainly through, you know, dust clouds and a lot of particulate moving from the west part of New South Wales across to the east coast, and particularly through the bushfire season when, you know, you might have noted there were, you know, the media talking about bushfire smoke across Sydney Harbour, those types of events – that's particularly when the PM2.5 level increased significantly, and we were shutting the mine so that we didn't further impact that.

But as Chris mentioned, you know, particularly through winter, and, look, really, the diesel particulate load within Muswellbrook in condensed urban areas create a
40 substantive PM2.5 load, and certainly that same load, it's not evident in our monitors

or the regulator, the EPA monitor, halfway between the mine and the monitor that is located in the centre of Muswellbrook.

PROF. FELL: That's very helpful, thanks. You mentioned LIDAR measurement in your documentation. Maybe you could declare a little bit more about that, but I asked the real question of, in this climate change scenario we're in, we're likely to get stronger winds for much more of the year. Is that a problem?

10 MR R. BAILEY: Look, no, in terms of it will just mean that, you know, our management will potentially apply more often, essentially, and we'll apply the same measures and the same tarps, we have the same limits, et cetera, so it will be, you know, more activity, I guess, to ensure that we're remaining well within our limits. And look, you know, the majority of time, we're well, well below our operating limits, and even the limits that we set below the regulatory limits, we're well below those.

PROF. FELL: That's very helpful. Thank you.

PROF. CLARK: Terry, anything there? I just noticed you were off mute.

20 MR T. BAILEY: No, sorry, I think I'm just off mute from before.

PROF. CLARK: All right.

MR T. BAILEY: But I did take having this recurring piece around the visual impact on the eastern emplacement, and this piece that looks at what the current distant view is, and the shortening of the view to community is one of the aspects that's popping out, and what that means. And so it's probably wanting to understand from you that level of understanding you have from a community perspective around the impact of the changing of the distant view that might occur, and I think it shows out in one of
30 your slides – I think it was – might have been slide 32, that there is a change in the distant view.

MR LAURITZEN: Yes. I guess there is, yes, but to mitigate that, the landform is designed to match landforms that are in the background. So, you know, by using the natural landform design, it looks like an actual landform that has been created. It doesn't look like an engineered landform. It doesn't look like how traditional mine spoil does, and I think it's easy to talk about it online – it's probably better when you see it, because I think when you see it on the site visit, it will become apparent that this is something that is very different - - -
40

PROF. CLARK: Yes, I – sorry, continue.

MR LAURITZEN: - - - compared to other operations.

PROF. CLARK: Just on that aspect of that geomorphic landscaping and the effort that's going in there, you mentioned that potential agricultural uses wouldn't be on that, they would be on the disturbed land from infrastructure, and I'm assuming this is part of the closure. One of the questions that I had is, as we look at transitioning, you know, and new businesses coming in as the mines phase out and close, agricultural uses of land like that may be quite important to transitioning. Are the geomorphic
10 landforms that you're forming on the site of that able to be farmland, or is the creation of them and the way that they have to be sustained prohibiting that?

MR LAURITZEN: Well, in my view, they would certainly be able to be grazing land, but we have to remember that we are under an obligation to – particularly our EPBC approval, to restore a certain amount of endangered woodland, and there's only so much land available. We have also had conversations with the Department in the past to try and think of more innovative uses for mine land, including recreational uses – mountain biking, for example, which would be, I guess, a bit of a left-field but very economically attractive use for mine land – but we've also come up against the issue
20 that we must comply with our obligation to restore native species and native woodland. So that's why things are the way they are. If the rules were different, then things would be different.

MR R. BAILEY: Look, I think it's fair to say, Chris, that certainly the macro and micro drainage and relief certainly wouldn't prohibit agricultural use at all, you know, and the way that's been designed with both the GeoFluv arrangement but also the Siberia software run over that to make sure we've got stability in the longer term – you know, that land could sustain a range of agricultural uses. It's just that at this point, given the requirement for the CEC, you know, the community, it hasn't been designed
30 that way in terms of how we've landscaped it, but the landform itself would sustain a range of agricultural uses.

PROF. CLARK: Thanks, Richard. I have no other questions here. I'll do a whip-around there. Chris – yes.

PROF. FELL: I'd like to ask a question about the economics.

PROF. CLARK: Yes.

40 PROF. FELL: Now, you've given a Treasury-style estimate of what the net present value of the operation is. I'm very conscious that we're entering a period where a lot

of uncertainty hangs over basically – you know, DHD emissions, and particularly lots of questions are being asked about fugitive emissions. And you mentioned in your documentation that for some years of the 25-year extension or operation you're looking for, you will go out for about – I've forgotten the exact figure, but 0.9, whereas your current base figure is about 0.6, and obviously at that time you will be obliged to buy offsets, I imagine. At what stage does it look pretty bleak for you, not just from the price of coal, but also from the offsets you may have to buy, because the estimates seem to go up to \$150 plus per tonne of CO₂e out 20 years from now. So could you give us some guidance on that?

10

MR LAURITZEN: Well, somebody once told me that predictions are difficult, especially about the future. That's a bit of a joke, but, I mean, in my experience in the coal industry, I have seen various efforts to predict future coal prices and future costs, and what we've done is use the best advice available. However, we can see recent events where the coal price is today certainly weren't predicted as much as, you know, ten years ago. That's one thing.

20

Fundamentally, the best strategy for us as a mine operator is to make sure that we are in the bottom quartile of the global seaborne cost curve and we are – so we've got a very low strip ratio mine, and inherently it's got very low gas contents in the coal. So from an endowment point of view, we are in the best position we could be, and particularly compared to our competitors.

30

So if, in the future, the coal market changes, the current seaborne coal market changes, the current seaborne coal market is about a billion tonnes; total coal mining in the world is 8 billion tonnes, so the market that we're in, the seaborne coal market, is only 12 per cent of coal production globally. Every one of those other tonnes, those 8 billion tonnes, contributes to emissions, and if the seaborne market were to contract significantly, essentially 75 per cent of that market would have to disappear, because we're in the bottom quartile before we're – you know, we're basically breaking even.

So we're in a very good economic position as a thermal coal player, and, yes, there is going to be risks with future costs related to greenhouse gas emissions, but our emissions are lower than our competitors in output. That's what the data shows. So providing that the limit is set appropriately, I guess it's the Department of Planning that set that limit, and we accept the limit. We don't – we think we'll be able to operate it. Sorry, does that answer your question?

40

PROF. FELL: Well, it does. I mean, the question was really about the problem of potential offsets, or the interplay for the greenhouse gas for the future, and just how high it would become as an impost on your production. And while you discounted

that to get an NPV, so what's happening 20 years out doesn't seem very much, every year you actually have to come up with the payment, if you like, under the MGER.

MR LAURITZEN: Yes, that's right. I mean, we acknowledge it's a risk - - -

PROF. FELL: All right.

MR LAURITZEN: - - - but we think we're in a good position to address it.

10 PROF. FELL: Yes – not one from your argument that you feel is so high that you can't take it.

MR LAURITZEN: No, I don't believe so.

PROF. FELL: Thank you.

PROF. CLARK: Thank you, Chris. I don't think there's any other issues – Terry, anything around biodiversity or anything? No? We're all good there. I think that's it. Now, I understood – Chris, you have one more?

20

PROF. FELL: Sorry, forgive me. I seem to be asking too many questions.

PROF. CLARK: That's O.K. Go ahead, this is the - - -

PROF. FELL: It's really the question of noise, because we hear quite a lot from people, shall I say, in Muswellbrook that the mine can be noisy during the day, and they're going up in production. Can you give us a few ideas about how, in this new situation, you will help the noise? Just straightforward – what are the biggest factors that will help that situation improve?

30

MR LAURITZEN: Just before I pass to Richard, because, again, he lives and breathes this, I think that the answer to the question is fundamentally those earlier slides which show where we're already operating at 10.5 million tonnes per annum. With the early stages of the mine, you know, obviously, we – if you look at our complaints history, which we've got on our website, when we first started up, after, there were a high volume of complaints than there are now, and that's simply the fact that, you know, when you start up, you're basically starting the mine up, you haven't got the waste emplacement in place to shield you, and therefore you've got more noise propagation – we've mitigated that by only operating on a day shift, and operating in two distinct bells(?). As the mine has matured and the bund has risen, the complaint profile has

40 dropped significantly.

Now, over time, of course, the mine gets deeper, and it moves further west away from town, and that – and when it's deep enough and further enough west is when we increase production, so we essentially – you know, it's not true to say an increase in production is going to generate more noise complaints and more impacts, because it's happening at a time that the mine is further away from town, deeper, and more effectively shielded. So just – and maybe Richard can talk about, you know, how we've managed noise issues from day to day with our monitoring work, et cetera.

- 10 MR R. BAILEY: So, look, again, for noise, we have a full real-time monitoring network with tarps similar to air quality. So we can – and we also have our full tracking system, all pieces of equipment, so we know exactly where each piece of equipment is in real time, we know the noise location, direction, et cetera, so we can pinpoint that information, but, look, the key matter in terms of mitigation for noise is shielding, essentially.

- 20 So when we commenced operation, we were fully exposed to pretty much the whole township of Muswellbrook, with all our operating equipment – you know, clearly that was a tougher time to manage in regard to noise. We were able to manage that very successfully without exceedance, but we did – you know, putting aside the regulatory level, you know, people did hear us and could recognise the mining noise in the distance. So, you know, they could hear us.

Certainly since the external bund or the emplacement has been built and shaped – and remembering that it's not at its full height at this stage, it will continue to grow for another three to four years – so the mine is very well shielded now from noise exposure.

- 30 So, you know, typically at the moment people might hear the mine if we're operating at the very high levels – basically building that external emplacement higher, and we do that during the daylight hours, so we're not disturbing people, it's mitigated in terms of the background – we're still well below our noise criteria, but if we're operating those high levels, people can from time to time hear us, but certainly, you know, when we have a higher noise reading, we just drop – we remove the equipment to lower levels, which completely mitigates that noise impact.

- 40 And certainly, as Chris mentioned, the lower seams, and our deposit essentially dips to the west, so it's going deeper towards the west, away from town, so the activity level and the operation of the equipment largely will be lower within the mine, and certainly the centroid of that activity will be much lower, and the external emplacement will be much higher.

So in terms of the shielding impact, it will be dramatically increased over that time. Yes, we will still be operating from time to time at the upper levels, and both on the waste emplacement and the mine, but we can regulate how we do that and what times of day, but also under what type of meteorological conditions that we operate in those areas, because, you know, the weather conditions as well contribute significantly to the level of noise and the precepted level of noise as well.

10 You know, so, particularly cold winter, crisp winter nights, particularly under inversion conditions, you know, people are more likely - or the noise is more likely to carry a significant distance, for example.

PROF. CLARK: Richard, one of the – you know, the discussions around noise in the operating mine, I guess to extend that out to trains and trains going, you know – obviously there'll be more trains and trains are noisy too – we've heard, you know, submissions around train noise in the town of Muswellbrook – have you got any comments to make around, you know, offsite noise that is a product of this increase in production?

20 MR R. BAILEY: Look, probably not specifically – look, the two – the western and northern lines both – so the northern line within New South Wales and the Ulan line from the western part of New South Wales meet essentially in the township of Muswellbrook, so they join and head to the Port of Newcastle, and there's a substantial number of train movements, both – look, a lot related to the coalmining industry, but also freight rail, passenger rail, et cetera, that move right through the middle of that township.

30 On particularly the northern line, you know, the township is strung along that particular line. It runs right through the back of the main street. It runs right through the main housing areas and into the east. It's in the bottom of the valley, which sort of reverberates up through the houses on both sides of the valley, quite frankly.

So, yes, we would be, through our volume, contributing somewhat to additional trains, but look, I think there's a lot of rail traffic moving through that township currently, and, you know, ours wouldn't be more significant than that.

40 I think the – we've had – you know, we've done quite a bit of noise work on our rail spur, so our private spur, and certainly it's not a significant noise source for us. We've heard – since we've had the old loop in place, we've had no complaint on that, but that was largely in the back of the Bengalla mine. Since we've moved to the new location, we've had not a single complaint about rail noise, and, you know, the rail moves past

an area – the racecourse area of Muswellbrook, so south, south-west of Muswellbrook, and there has been over time various complainants from that area. We've not had a single noise complaint from that area.

And certainly the noise level, from both the models and the real-time would be – the real data collection we've undertaken wouldn't suggest that we're anywhere near the noise compliance levels, or even at a level which people would find nuisance noise. We've done quite a lot of work, obviously, in terms of shielding – you know, we've got full shielding of both the exposed bridge areas for that rail spur, but, look, there hasn't been a source of contention at all since we've been operating on that system.

PROF. CLARK: Thanks, Richard.

MR LAURITZEN: So just to add to that, of course, our increase in train movements again happens at a time when other mines are in decline.

PROF. CLARK: Sorry, Chris – other mines are not moving?

MR LAURITZEN: Yes, so our increase in train movements happens at a time when other mines' trains are declining as their production is declining.

MR R. BAILEY: Yes. So in terms of our volume increase over time, at the time that we're starting to send more trains through the system, our neighbouring mines will be wrapping down, and a lot of that volume will have come out of the broader rail system at that point.

PROF. CLARK: O.K. That's interesting. Thank you.

MR LAURITZEN: And just to add to the answer for Chris's question about noise, I guess the other thing to mention is, you know, we are surrounded by a number of receivers and private residences. We have successfully installed quite a few mitigation works in people's houses, such as double glazing and, you know, other measures to reduce noise for those people who – some people have got acquisition rights, and they can, at any time they want, ask us to buy their premises. Some people are not ready to leave and elect to have mitigation work done, and I think I can say that those people who have elected to have mitigation work done are generally very happy with how we spend – we have got a very, very high-quality builder who is based in Scone who knows how to do this work. We've got special sandwich glazing that's installed in people's houses, and it really does have a significant effect on attenuating the noise, because people mostly feel the effects of noise at night, so being

able to sleep at night, having an air-conditioner, having double glazing, in those regards definitely mitigate the impact.

For those people who are closer still who have acquisition rights, we progressively engage with those people with acquisition rights and bought quite a few properties, and we have quite a few that are, you know, under negotiation at the moment.

10 PROF. CLARK: Thank you. O.K. If there's no further questions - last call there, Chris and Terry – I'll call the meeting to a close, and thank you very much for the effort and time that you put in to present to us and take our questions and the questions on notice. Thank you in advance for that information. Brad, is there any tying up – was there a video?

MR JAMES: I think I discussed that with Chris, and we'll see the video of the site inspection.

PROF. CLARK: Excellent. O.K. My mistake.

20 MR LAURITZEN: So, look, we thought with the video that it would be more effective if you saw it and then were able to immediately go out into the field. We sort of had a look at a previous IPC meeting where it seemed to say that the Commissioners found that the drone footage quite useful, and we thought that having that and then you being able to go into the field and see it on the same day would be more beneficial.

PROF. CLARK: Yes. Thank you. So if there's nothing else, Brad or Phoebe?

30 MR JAMES: Alice, one point. So Chris and colleagues, we'll send through a notice with these questions that we discussed today, if not tomorrow, early Monday.

MR LAURITZEN: Yes. Brad, you're very faint, I'm sorry.

MR T. BAILEY: Send through a note with the questions.

MR JAMES: So I'll get back to you with the questions on notice, Chris. Is that audible?

MR LAURITZEN: Yes. Yes, please.

40 PROF. CLARK: So we'll send to the applicant our questions on notice, and that will happen Monday, I think you said, Brad, yes?

MR JAMES: Yes.

PROF. CLARK: O.K. All right. Thank you again, and very appreciative of your time, and I'll draw the meeting to a close and stop the recording at this stage. Thank you.

MR LAURITZEN: O.K. Thank you so much.

10 MR R. BAILEY: Thank you.

MEETING CONCLUDED