New South Wales Government
Independent Planning Commission

TRANSCRIPT OF PROCEEDINGS

RE: GLENDELL CONTINUED OPERATIONS PROJECT (SSD-9349) AND MOUNT OWEN CONTINUED OPERATIONS MOD 4 PROJECT (SSD-5850-MOD-4)

DEPARTMENT OF PLANNING AND ENVIRONMENT MEETING

COMMISSION PANEL:	DIANNE LEESON (Chair) PROFESSOR SNOW BARLOW ADRIAN PILTON
OFFICE OF THE IPC:	CASEY JOSHUA JANE ANDERSON STEPHEN BARRY
DEPARTMENT OF PLANNING AND ENVIRONMENT:	CLAY PRESHAW STEPHEN O'DONOGHUE JOE FITTELL
LOCATION:	VIA VIDEO CONFERENCE
DATE:	9.30AM, THURSDAY, 10 MARCH 2022

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MS LEESON: 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 Glendell Continued Operations (SSD-9349) and Mount Owen Continued Operations Mod 4 (SSD-5850) projects, which are currently before the Commission for determination. The Glendell mine forms part of the Mount Owen Complex located in the Hunter coalfields in the Singleton local government area. The application for the Glendell Continued Operations Project would extend the life of the existing operations by establishing a new mining area to the north of the current Glendell pit to enable the extraction of an additional 135 million tonnes of run-of-mine coal over 21 years, at an increased production rate of up to 10 million tonnes per annum. Coal extracted over the life of the project would continue to be processed at the existing Mount Owen coal handling and preparation plant facilities before being transported via rail in accordance with the Mount Owen consent (SSD-5850).

The project involves an associated modification to the Mount Owen consent to integrate with the proposed extension. While the project would continue to rely on existing infrastructure, including the Mount Owen coal handling and preparation plant, rail loop and existing Glendell mining fleet, it would require the development of a new mine infrastructure area, including associated infrastructure and services, along with construction of new heavy and light vehicle access. In addition, the project would involve the realignment of a section of Hebden Road, diversion of Yorks Creek and relocation of the historic Ravensworth Homestead.

My name is Dianne Leeson. I'm the Chair of this Commission Panel, and I'm joined by my fellow Commissioners, Professor Snow Barlow, to my right, and Adrian Pilton, to my left. We are also joined by Steve Barry, Casey Joshua and Jane Anderson from the Office of the Independent 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 produced and made available on the Commission's website.

This meeting is one part of the Commission's consideration of this matter and will form one of several sources of information upon which the Commission will base its determination. It is important for the Commissioners to ask questions of attendees and to clarify issues whenever it is considered appropriate. If you are asked a question and are not in a position to answer, please feel free to take the question on notice and provide any additional information in writing, which we will then put up on our website.

I request that all members here today introduce themselves before speaking for the first time and for all members to ensure that they do not speak over the top of each other to ensure accuracy of the transcript. We will now begin.

So good morning again and again apologies for that slight delay to our start. Those technical issues managed to be overcome successfully by the team here, so thank you. We have quite a long agenda this morning. As you would see, it's quite comprehensive and we have a limited amount of time, so we will probably cherrypick our way through those, and we can follow up any other issues as we continue our deliberations along the way. I think a couple things that we would particularly like to focus on this morning relate to mining, mining method, greenhouse gas emissions, heritage, and we'll probably pick up a few other things along the way that transect with all of that. We were due to go to Glendell earlier in the week but weather conspired against us that regard and we didn't go, so we've not had the benefit of a physical site inspection but we have had the benefit of a virtual site inspection, and some things we are particularly interested to peruse up there will be around rehabilitation and management in particular. So some of our questions might be best deferred until later but we'll see how we go this morning. So we might, I think, subject to my panel agreeing, kick off with heritage, which is in fact the first item on the agenda.

Heritage is clearly a vexed issue and a very complex issue so far as this proposal is concerned. We understand, we read that it's not currently state heritage-listed although is it is recommended by the Heritage Council, so we'd like to pick up on the department's understanding of the status of that and what processes might be in play. Secondly, I think we would also like to understand from the department's perspective where you understand the ATSIHP section 10 application with the Commonwealth to be at, if there's any light if you could shed on that. And then I think we'd probably like to open up for a broader discussion around some of the heritage issues and the department's assessment report in terms of both archaeological and probably cultural and sort of more intangible cultural issues associated with the site. So that's quite a long introduction. But I'd like to hand across to the department to take up particularly perhaps the first issue on state heritage and the ATSIHP application.

MR PRESHAW: Thanks, Dianne. It's, so it's Clay Preshaw here as Executive Director of Energy Resources and Industry Assessments. If you don't mind, I might just do a couple of introductions. And so I've just introduced myself but I'm also joined by Steve O'Donoghue, who's the Director of the Assessments Team, who's been involved in all the aspects of the assessment, and also Joe Fittell who's the Team Leader. So Steve and Joe are totally across the details of the project. And there are also a number of other planners who are involved in the assessment who aren't here

today. Maybe just one thing I might sort of add before we jump into the heritage. Just a couple of opening comments about our approach to this report, which is perhaps a little bit different to those in years gone past. I think the most important difference really is that we've tried to be very open about our, the issues that worried us the most. And so, you know, it's pretty obvious I think from our assessment report that we have really grappled with what we see as some extremely difficult issues. The types of issues that have forced us to get additional information and extra advice from a range of different experts. And certainly heritage is obviously one of those things.

So look, I agree we've got a long agenda. So I won't spend any more time sort of with opening comments. Maybe I'll just throw to Steve to talk about the heritage aspects of our assessment and then we can, you know, take questions as we go along. So over to you, Steve.

MS LEESON: And don't feel limited by what we have on the agenda. If there are issues that the department particularly wants to clarify with us today that you might not feel are covered in the assessment report, then we'd be more than happy to hear that as well.

MR PRESHAW: Yeah, for sure. But Steve, I might get you just to open up with some of the responses on the issues relating to heritage.

MR O'DONOGHUE: Thanks, Clay. Yes, good to be here. Look, Steve O'Donoghue, Director, Resource Assessments. So I've been involved with the project for a year or more now. Just on the, just, Chair, on the two items that you sort of touched on at the beginning about the section 10 under the ATSIHP Act. We're certainly aware of that process. We understand that the application covers like a large portion of the Hunter Valley coalfield, and it's not specifically Glendell mine area but does cover other operations. I have sort of outlined in our report the ATSIHP Act and the section 10 application is outside and separate to our consideration of the proposal under the New South Wales planning system. And, I guess, more broadly as a matter to confidential process which the department directly is not a party to the proceedings. And, I guess, if there's any sort of status of where that's at you're probably best of speaking to the Commonwealth directly about the matter, on that one.

And, I guess, in terms of any state listing with the Heritage Council, our understanding is that they're deferring any decision on the listing until there's a determination on the Glendell Continuation Project on that aspect. So I'm not sure if you've got any more questions on those two aspects or I can just go into sort of more broadly our assessment on heritage aspects?

PROF. BARLOW: Steven, just a point of clarification. It's Snow Barlow here. Is (not transcribable) so the Heritage Council have delayed decision pending the outcome of the application. You mean, the development application that we're determining now or the Aboriginal claim over the area?

MR O'DONOGHUE: The development application under the New South Wales planning system.

PROF. BARLOW: Okay. Thank you.

MS LEESON: I mean, I think the Heritage Council's view was quite clear in their objection to the process (not transcribable) proposal, so we'll take on note that that decision to defer until this determination's made. Thank you.

MR O'DONOGHUE: Look, I'm happy just to touch on some of the key aspects of the heritage assessment in particular.

MS LEESON: Please.

MR O'DONOGHUE: First agenda item. And, I guess, you're looking at like in the agenda you're looking at the focus on the relocation of the Ravensworth Homestead and sort of the impacts and options around that and community views, so I'll touch on that. But also, you know, discussion around Aboriginal heritage items as well which I'll – there's some overlap in that. So I'll go through some comments about that. I guess, the project, the key, one of the key considerations of the department was about the proposed relocation of the Ravensworth Homestead. It's currently located in the centre of the proposed pit extension. And I just might pull up a figure here, if I can share a screen. It might just help if I can do that. Can you see that, Commissioners?

MS LEESON: Not yet.

MR O'DONOGHUE: How about now?

MS LEESON: Yes.

MR O'DONOGHUE: Yes, okay. So just, I guess, a key aspect here is that this is the, this is just the layout of the mine site, the project area. The orange highlight here, I don't know if you can see my cursor.

MS LEESON: Yes, thank you. We're just trying to see if we can dim our lights a little.

PROF. BARLOW: We're just trying to see, sorry, Steve, just if we can adjust the light, I – that's better.

MR O'DONOGHUE: Okay.

PROF. BARLOW: Thank you.

MR O'DONOGHUE: So I guess the orange line here is the proposed pit shell area in the extension area. The homestead is located in the yellow point here in the, essentially in the middle to the north of the pit shell. One of the relocation options that has been looked at is relocating it to the Ravensworth Farm, which is still in the original estate holdings, which is the red dot, red sort of point here. That's, it's close to the proposed mine infrastructure area for the Glendell project, which is the blue line. Maybe just point out some other features as well, which will come up in conversation through the briefing. There's the Hebden Road realignment, which is the pink line coming around, 'cause the, the Hebden Road's sort of to the western side, intersecting the pit shell through here. Another key feature is the, the Yorks Creek, coming down through here, with a diversion to the north coming out of the, prior to going into the pit shell and getting rediverted, you know, back, back into the main creek line through here, through, through Bowmans Creek. So I just wanted to point those features out. So just in the, like I was saying, one of the relocation options is the Ravensworth Farm, so it's about 1.7 k's from the existing location within the bounds of the original Ravensworth landholdings. I'll just sort of, the next figure shows more broadly the, the options that were looked at through, through the assessment process by the proponent. Here's the, here's the Ravensworth Homestead here. The Broke option, which is one of the other shortlisted options, option 9 in the overall, overall ones is, is located in a publicly owned McNamara Park in Broke. These two options were shortlisted following extensive community engagement and options analysis through the assessment process, which included the establishment of the Ravensworth Homestead Advisory Committee. So there were 11 options investigated and looked at two relocation methods, one an intact move and one a dismantle and rebuild, and the, the screen here just shows all the options that were, that were investigated as part of that process. And I understand - - -

MS LEESON: Steve, just while you're there, while you've got a diagram up or a map up on the screen, are you able to point out for us where a couple of other features are external to the site, so the St Clair Mission and perhaps Mount Olive? It's come up in conversation, in meetings.

MR O'DONOGHUE: Right. Look, Joe, you, are you familiar with those - - -

MR FITTELL: Not in the context of that figure. I'll, but I can bring up a map on the side here and I'll, I'll find them and point them out in a second if you want to - - -

MS LEESON: No, that's fine. We - - -

MR PILTON: They're in the top right-hand corner.

PROF. BARLOW: I think so.

MR PILTON: Yeah.

MS LEESON: Okay. Okay, thank you.

MR O'DONOGHUE: So like, like St Clair?

MR PILTON: Yeah.

MS LEESON: All right. That will do for the moment. Thank you.

MR FITTELL: Yeah. They're, they're right next to that option 8, just to the south-west of that option 8 is basically where Mount Olive and St Clair Mission is.

PROF. BARLOW: Steve, while you've got that map up there, can you scroll to the map on the top?

MR O'DONOGHUE: Yeah.

PROF. BARLOW: Thanks. Can you point out on that map, this is not related to the homestead, where the Mount Owen processing plant is, coal processing?

MR O'DONOGHUE: Mount Owen? It's just through, just through here.

PROF. BARLOW: Is that where the processing plant is?

MR O'DONOGHUE: Yeah, that's, that, that's right. That's the coal handling and prep plant, so the CHPP. There's, it's for the coal handling and prep plant, so that's part of the infrastructure area where, where the Glendell sort of coal would be going for processing.

PROF. BARLOW: And where's the transport road that would take the coal from the pit to that area?

MR O'DONOGHUE: That's up through, that's up, currently, it's up through, through this area here.

PROF. BARLOW: Yeah.

MR O'DONOGHUE: I guess as the, as the mining, mining changes, there, there'd be changes to haul road routes to reduce the, the, you know, the length of haulage. So that's a key, like, for, for dust purposes, try and reduce the length of haulage and that is, is a key part of, you know, dust, dust minimisation.

PROF. BARLOW: Okay. Thanks. Sorry. That's not part of heritage but - - -

MS LEESON: I knew we'd get - - -

MR O'DONOGHUE: No, that's all right. It's, like, it's good while the map's up there, I can come back to the map and speak as needed through, through the briefing.

PROF. BARLOW: Thank you. Sorry for the diversion.

MS LEESON: No, that's fine.

MR O'DONOGHUE: That's all right. Look, just the other thing I was going to point out, I understand that, like, Glencore had provided the Commission with video montages of the, of the relocation options for the two shortlisted locations.

MR PILTON: Yes.

MR O'DONOGHUE: And I understand you have that, which is useful, useful information to, to look at. Just touching on community views on the two shortlisted options, the, the breakdown on, on preferences differed between the, the key stakeholder groups, with the, I guess the wider community members within the Singleton Local Government Area and Aboriginal stakeholder groups favouring the, the Broke Village option and near neighbours, you know, generally favouring the, the Ravensworth Farm option. I guess following our review of all the information, the department considered that the intact relocation to the, to the Ravensworth Farm site would, would act to mitigate, I guess the, the largest concern with the, the relocation which is, which is the loss of heritage values associated with the, the Ravensworth Farm. So although the Broke option would result in additional social benefits for the

local community, it would not, it would not act to mitigate as effectively many aspects of the, the homestead's heritage values, which is a, a key issue for, for the project - - -

PROF. BARLOW: Steve?

MR O'DONOGHUE: Yeah.

PROF. BARLOW: Could you just elaborate on who are the near neighbours of that homestead? Are you talking about the Hebden village and the Camberwell village?

MR O'DONOGHUE: Yeah, look, I'll, I'll just come down. There's another figure here which might be useful. Look, we may not go through all these figures, but just the, the land ownership figure. So I guess the, the, the nearer neighbours are more, more related to, you know, the, the Falbrook area, you know, remaining residences in Camberwell, for example, and, and the rural sort of residential around, around, you know, Falbrook, for example. So, so again, you can see from this figure that, that the mines in the area have, cumulative, have, have acquired a, quite significant landholdings around, around the mine site, mainly, mainly for buffer for impacts for, for noise and air, air quality in, in the main. But, but certainly the, the, from a, from a feedback in the, in the survey was that more immediate community to the, to the mine that the Mount Owen complex was supportive of that. I'll just bring that back up to that one.

So just, just going on, just going on the Broke side, one, one of the things that we did turn our mind to, as well, was that, you know, in discussions with council but also within the, the assessment material provided, it was clear there was a number of planning and environmental constraints for the Broke site that, that would need to be resolved, a key one being rezoning to, to allow, allow the proposed use. The site's also located with the hundred year flood zoning, so there are, there are issues around, you know, requiring flood mitigation works that would be required. And there are, there are biodiversity and heritage sort of aspects that would need to be considered as part of any, any future planning application in that.

Council also, there was also queries about council, I guess, support for funding and ongoing, ongoing maintenance, you know, as part of their broader, you know, strategic vision for the, for the village precincts in, in the area. So to, to ensure - - -

MS LEESON: Just while you're at that point - - -

MR O'DONOGHUE: Yeah.

MS LEESON: - - - I mean, there's a lot of 'need to do's in terms of the Broke option, as you suggest, land use, rezonings, flood issues, surfaces, biodiversity, et cetera, et cetera, that it's Crown land, there's licences or leases, et cetera, to be arranged.

MR O'DONOGHUE: Yeah.

MS LEESON: Even with best endeavours and all the will in the world, do you have a view around the time frame that might be required to put all of that into place (not transcribable) statutory (not transcribable) approvals and land management side?

MR O'DONOGHUE: Well, I, I guess in terms of what mine, mine scheduling and, and the need to, you know, make decisions about, about that, I, I guess there's, there is limited time and I think there's some reference to it in the, in the information provided by, by the proponent. Joe, can you, can you recall, just in terms of time frame, to get the, that option up?

MR FITTELL: Yeah. I, I think it was, like, a few years, two, two years or so, from memory, and, and even though Glencore were of that view, I think Singleton Council thought it might even take longer because obviously they'd be involved with the, the rezonings and things like that, and from their experience, that's something that takes quite a, quite a long time to get through. So I think it was a, a, a couple of years from memory.

MS LEESON: Thank you. And - - -

MR PILTON: What does - - -

MS LEESON: Sorry.

MR PILTON: Sorry. I was going to say what does that do for the planning of the coal extraction? Obviously, if it gets approval, it's going to get closer and closer to the homestead before a decision's made, and if the decision is that it can't be moved, what does that do to the mine?

MR O'DONOGHUE: If, if it can't be moved? Look, I'll, I'll, that's certainly – I'll touch on that 'cause that's, I guess that's the, the key issue for, for, that, that we turned our minds to and, and why we I guess went through a process of engaging a number of experts, as well. So I might, look, I might, I might touch on, on that. So, so I guess, I guess just going, going back on the, the, sort of the Broke option, the, the, just wanted to discuss that to ensure the retention of as much heritage as possible, we recommended detailed relocation criteria to be developed in consultation with the

council, Heritage NSW and the local community as part of a Ravensworth Homestead relocation plan, which is, which is part of a recommended Historic Heritage Management Plan covering the whole site and other historic heritage features on that.

PROF. BARLOW: Steve, Snow Barlow here.

MR O'DONOGHUE: Yeah.

PROF. BARLOW: If, you know, we know that your assessment report on the balance of evidence, you know, recommended that perhaps the Ravensworth Farm option was a better option but if the Broke option became a preferred option, who would drive that process? Would it be Glencore or would it be the committee that has been, or the Trust Board that has been formed for the Broke Village? Who would be responsible for that, then? We know that Glencore will probably foot the bills but who would be the driver?

MR O'DONOGHUE: Look, ultimately, Glencore, as the proponent, would be responsible for that, so if, if there was a, if there was (not transcribable) to require it as a, as a preferred option, which is open to the Commission, then, then, ultimately, it would be up to, to Glencore to, to ensure that could happen in working with, you know, the, the, the consultative committee and council and getting through the, I guess the planning constraints for, for the, for the site. But in terms of commissioning it, it would, you know, it's up, it's the, it's, it's, the requirement is on the proponent to, to, to ensure that can happen.

PROF. BARLOW: Thank you. Thanks.

MS LEESON: Thanks, Steve. And I think we're not presuming either way what the Commission's views are or might be. We're just trying to understand a little more comprehensively the implications of either of these options, including the leave in situ option. And I think you've described in the assessment report quite well the challenges of either of the two options presented in the assessment report, one being stronger heritage protection if it's relocated to Ravensworth Farm versus perhaps more challenges around its long-term use, ownership and management against a lesser heritage significant outcome at Broke but probably with more economic and social and commercial opportunities. So we don't underestimate the challenges that the department's tried to put in front of us and to untangle in the assessment report. We're just trying to tease it out a little more.

MR O'DONOGHUE: Yeah.

MR PRESHAW: If I could just jump in there, Steve.

MR O'DONOGHUE: Yeah.

MR PRESHAW: Because there seems to be at least three questions that are being posed here. One is if the Broke option is pursued, could the relevant planning processes, et cetera, be completed before the mine reaches the point where, you know, the homestead is located, and I think the answer is, from what we understand, yes, even if it took, say, two years or more, but we probably need to just double check that and we can come back to you.

I think the second question is, as was just asked now, like, who would drive the process? Certainly, the company would be required to drive the process but I think that point that was made sort of in the question is that there would be other stakeholders involved. So what that means, I believe, is that there is not necessarily or there's certainly not 100 per cent guarantee that it would work out. And I think that sort of leads to the third question which is, well, if you were to pursue that option, how would you incorporate it into any potential conditions of the consent? Well, I think what Steve's saying, and I agree, is you would essentially make that the proponent's problem and, you know, if you wanted that to be the option that's pursued, you could require that through the conditions.

Now, with all three questions, there's probably more detail we could go into if that's something that the Commission wants to pursue. So we're happy to at a later date, perhaps, come back with more information if that is something that's of interest to the Commission.

MS LEESON: It probably is, thanks, Clay, because it certainly does dovetail with the mine planning sequencing that we are looking at.

PROF. BARLOW: And, Clay and Steve, in that detailed response which you've just ventured and Di has accepted, if you could give your estimate of what, if you like, the drop-dead date is when mining would be interrupted by the homestead still being there, you know, what year as you go forward would mining presumably have to be curtailed if there wasn't a resolution of the homestead?

MS LEESON: And if I can add to that, I think we'd also like a consideration of the distance from the homestead that you would actually use as the benchmark for that. So we've heard concerns around impacts of blasting and various offsets have been identified for the homestead, I think 500 metres and 900 metres. So if you can factor that into your response and your thinking, it would be appreciated. Thanks.

MR PRESHAW: Yeah, sure. We'll take that one or those, those couple of questions on notice.

MR O'DONOGHUE: Just, just going back to, did you want me to touch on, I guess, the process we followed or investigated with the, the consultants about the, the two, the two preferred options at all or, happy to step through that in a bit more detail.

MS LEESON: I think (not transcribable), Steve, we appreciate that. I think in the interests of time today and the issues that we want to be able to touch on, we might come back to that if that's all right?

MR O'DONOGHUE: Okay.

MS LEESON: I wouldn't mind understanding a little bit more how you've gone around the assessment of the Indigenous cultural significance of the site. We've already had the benefit of stakeholder meetings with both the Plains Clan People of the Wonnarua Plain and also with Wonnarua Aboriginal Corporation. And we've had some quite divergent views on that. The assessment report to me, and I may be misunderstanding it somewhat, seems quite focused, probably understandably, on archaeological and actual evidence in front of you and records of early settlement. Can you take us through how you've gone around or approached the cultural significance issues with the site?

MR O'DONOGHUE: Look, look, sure, like, I can touch on that. We're certainly in, in full recognition and understanding that, that the, the mine site in general and the Ravensworth Estate, you know, is part of the traditional lands of the Wonnarua People and does hold, you know, significant cultural significance, you know, not just, not just in relation to archaeology but also in relation to interactions and conflicts with, with colonial life in that 1820 period but also, but also the cultural values of, of the, the site itself, such, you know, as, you know, importance of creek lines, you know, for example, you know, Bowmans Creek and, and, and even Yorks Creek and, and, you know, resources, you know, biodiversity and, and other resources within the, within the mine site area. So certainly something that, that, you know, we did consider more broadly, not, not just the archaeological, archaeological record which is, which is important, of course, in its own right.

I guess as, as outlined in our assessment report, you know, there, there is, and as you've flagged, there is contention between Aboriginal groups as to the significance of the Ravensworth Homestead site and, and more broadly, in the, in the estate area, which the, which the mine covers. The Plains Clan of the Wonnarua People, you

know, are, you know, are of the view that the Ravensworth Estate may have been the site or a staging post for, you know, massacres of Aboriginal people. While I, I guess there's differing views on that within the RAPs with the, the, the Wonnarua Nation Aboriginal Corporation having an alternative view that it's not aware of a massacre associated with the estate and, and they'd be aware of that if that was the case. So there, there are differing points of view, you know, within the, the Registered Aboriginal Parties who, who are associated with the, the, the project.

I guess the Heritage Council recommended a precautionary approach be applied and, and, and, like, they didn't support a relocation of, of the homestead. And, and Heritage NSW acknowledged that the, the massacre site is located outside the project area, which, which is supported by, by a lot more work that was done through surveys, salvage and excavations in the area where, where burials or human remains haven't been found in the project site itself. So, so I guess the, the, so we, we certainly did turn our mind to the Aboriginal heritage aspects, you know, particularly in terms of the, the, the, associated with the Ravensworth, Ravensworth Estate, in particular, and, and looking at how that fed into relocation options. But, certainly, you know, it was more broad than just looking at archaeological values, but certainly, the, the cultural values more broadly associated with the site and, and the colonial history there.

MS LEESON: Okay. Thank you. I have no further questions on heritage, but are there any other questions on heritage before we move on? I'm just mindful of - - -

MR PILTON: Not from me, no.

PROF. BARLOW: The only question, and I think I ask it in a sense is the Ravensworth Farm option, is the department then, whatever the distance happens to be between where, you know, its ultimate location would be and the mine, are you satisfied that in its, you know, existing form that it would be able to withstand the vibrations from the blasts when the mine got to the closest point?

MR O'DONOGHUE: Look, certainly, Commissioner, it, it's a significant distance away from the, I'll just bring up the figure. From where the mining will be occurring, if you're look at the scale here you're looking at, it's 1.7 k's from the existing location, so you're talking about in the order of, you know, 900 metres or a k to where, where they'll be open-cut pit operations, probably, probably further. I guess there's the mine infrastructure area, which is near the, near the site, but it's really, there would be, there'd be some vibration associated with that, that sort of infrastructure but not at levels that would cause impact, impact to, you know, building infrastructure. So we're satisfied that the distance of that site, that there's a, there's a good level of protection for any relocation option from, from blast vibration pressure.

PROF. BARLOW: Thank you.

MS LEESON: Thank you. So I think that's been a useful discussion. We may well have some questions in due course but we might move on at the moment, and maybe the thing to do to talk to next would be the geology of the area because one of the things that we're interested in is open cut versus underground, which was dealt with, I think, in the, or it was addressed in one of your independent reviews, but it would help, certainly, I think we as the Commission to understand the department's take on that and why an open cut is the preferred option.

MR FITTELL: I can jump in there, Commissioner. So, good morning, as Clay introduced me at the start, Joe Fittell so I'm a team leader in Steve's team. So I can talk briefly and give you a bit of an overview about the site geology and then I might hand back over to Steve to talk about sort of the implications for mine methodologies and things like that as a result of that, that is geological features. So, Steve's just brought up a figure here on the screen. It shows essentially three key regional geological feature which have influenced the mine design. So these include the Camberwell anticline, which is that blue line running through the centre of the mine there with the arrows going to the east and west. So that's centrally located, it's trending north to south with strata generally dipping less than 20 degrees to the east and west of that fault. Another feature to note here is the Hunter Valley dyke which is the purple line just up to the north of the mining area that, again, is trending south-west to north-east. It's got typical intrusion thickness of up to 15 metres or so. And then the third feature there which is a fairly significant one when it comes to mining operations is the Hunter Valley block fault zone, which is the green dash zone just to the north of the mining area or within the northern section of the mining area. So that zone there is approximately 250 to 300 metres wide and it comprises of a series of north-east striking faults with typical displacements of less than about 12 metres. I guess, just a couple of other general facts, so in terms of overburden thickness within the mining area, the overburden ranges from sort of 50 up to 100 metres in thickness. Maximum extraction depth is going down to about 280 metres below natural ground level. I just lost my screen, sorry. The target coal seams are reasonably narrow for this project, so they're ranging from 0.2 metres up to about 2 metres in thickness, and the average interburden thickness is between half a metre and up to about 40 metres in some areas. So I might hand over to Steve just to talk about implications of those features in terms of mine design and consideration of underground mining and things like that.

MR O'DONOGHUE: Here's just a couple of other figures that just present, you know, some of the, just the geology. These are in the report or we can provide you

with this as well, and just showing the anticline across that cross-section as well, the AA cross-sections just like through here from sort of east to, east to west. So, just on the options, I'll just bring this up. I guess there was a, in terms of looking at options, there was quite a, there's a, appendix 1 of the EIS has quite a lot of detail of mine planning options analysis, so it's probably good to refer to that as well in your, like when you're going through the information. So we've relied on that information but also the review undertaken by MineCraft, who we engaged to, to have a good look at the mine plan that was on the table and, and look at the options and, you know, whether, whether they agreed, our expert agreed with, I guess, their, their justification for why some of the alternative mining methods were, were not really reasonable or feasible for the company to pursue.

I guess they, just on this table here, there's just a summary of the other options, the other seven options, alternative mine plans that were looked at from the proposal, one of them being underground extraction. I guess the key issue around underground extraction, as Joe sort of mentioned, is that the coal seams are fairly narrow so that, from a geological point of view it makes it difficult for underground mining. There's also splitting of seams as well and it's in a multi-seam environment as well, so there are, there are issues about, you know, how much resource you can get out through underground mining. If you look at, I guess, their analysis of what would be possible compared to the preferred mine plan, which is 135 million tonnes, that in this sort of environment they would only be able to mine 10 million tonnes. So from an economic viability point of view, it's not really an option for the company to, to undertake underground mining at this site just because of the significant reduction in resource and I guess the capital that would need to go into developing an underground mine. MineCraft, in looking at that, you know, agreed with that view in terms of the underground mining option and also looking at alternative pit shelves as well, and our economic, we did request our economic consultant CIE to also look at the, I guess, the financials of alternative mine options, including underground, and there was like agreement, I guess, from a financial point of view, that it wouldn't have a rate of return that would be, would make it viable for the company. So we did turn our minds to that and we did get some expert advice in terms of looking at those alternative options, including, including the underground mining option.

MS LEESON: Just to clarify there, CIE concurred that an underground extraction would not be feasible?

MR O'DONOGHUE: They looked at the mine plan options and did an analysis on it. I just have to go, go back and check whether they specifically looked at underground or just an alternative - - -

MR FITTELL: I can jump in there, if you want, Steve. So, CIE didn't necessarily look at the economics of underground mining but the MineCraft company, who did an analysis, an independent analysis of all the mine plan options, did concur with Glencore that underground mining wouldn't be feasible.

MS LEESON: And one of the reports that we've been provided with is very heavily redacted, being commercial-in-confidence, which we'll give some consideration as to whether we'd like to access that information or not. We'll come back to you. But whether that was CIE or it must have been MineCraft I think what you're saying, Joe?

MR FITTELL: Yeah, that was the MineCraft report, so Glencore were, requested that we redact anything within that report that was considered commercially sensitive, so that's MineCraft report, which is the independent review of the mine plan options that Steve's just run through here.

MS LEESON: All right, thank you.

MR O'DONOGHUE: Have we got anything on that one or do you want - - -

MR PILTON: Can I just ask a question about, I'm finding it hard to read this document but the one, which one is it, option 6, that's talking about mining to within 100 metres of the Homestead site, is that the - - -

MR O'DONOGHUE: That's correct. And that was, I guess that was one of the options looked at by MineCraft as well in their review. The issues with that is still, one of the key concerns about that is the impacts on the, on the Homestead through blasting – it's at a distance which would cause significant impacts from blast and overpressure on the Homestead itself, and would be significant, significant impacts, including, including concerns about the financial viability of reducing that to that level around the site itself. And the ability to mine to the north where, where it significantly narrows around the Homestead, would be an issue in terms of the financial viability actually being able to do that with the loss of resource.

MR PILTON: Can you explain a little bit more about the financial viability? I mean, if you were just to extend the mine to within whatever it is, a few hundred metres south of the homestead, presumably there's no extra cost 'cause the infrastructure is already there so they can just keep mining north and then stop it. It just means it's obviously a lesser total amount of coal. So why does that make the mine, the extension not viable?

MR O'DONOGHUE: It's still the, it's still the upfront, the upfront capital cost in terms of putting the capital into the project. It's the resource to the north, it is linked to the Camberwell anticline where there's dipping on both sides. Where you look at the location of the homestead, is at the shallower, shallower depth of cover with the anticline, so going down through the centre. When you go around the homestead there's higher strip ratios, for example. If you, this is one that MineCraft did look at in terms of stopping, you know, stopping short, well short of the homestead. And they agreed from like a economic viability point of view, I think, with the capital upgrades that they would need to do that and the rate of return that, that, it's not really a viable option for the company. So, I guess, our experts, including a CLE, in relation to this option considered that it wasn't an economically viable option.

MS LEESON: Steve, are you able to give us some examples of what that capital outlay would be? Is it physical plant and equipment? An explanation would be very helpful, I think.

MR O'DONOGHUE: Look, it's, it's, heavy investment in new mobile fleet. But also investment in, you know, new mine infrastructure components as well. So to get the, from a life-of-project point of view for the capital they want to put in over time, it's the resource to the north that makes the project viable.

MS LEESON: What I would like to understand, and perhaps you can take it on notice and provide it later or point to it or refer us to the correction sections in any of the reports, is what are the elements that comprise that capital investment? Because as Adrian has just said, you know, there's already the coal-handling facility, there's already fleet on site. Yes, you'll need to move or create a new mine infrastructure area. But I'm a little unsure of what that additional capital might be.

MR O'DONOGHUE: Look, we - - -

MR PRESHAW: Yeah, I think, I think, I might just jump in here to say that when we were preparing the report and we were writing up the section on the various options, it's fair to say that we, we had to decide whether to provide, you know, 20, 30 pages of detailed description about each of the different options or to try and summarise and distil where we had landed on that. But, I think, perhaps what you're asking, yeah, it does require a bit more detailed consideration and we'll probably have to go away and maybe if you've got a list of questions about one or other options. We're focusing on one at the moment. But if you've got questions about other options as well, happy to provide some further detail and if necessary, you know, also get advice from MineCraft on that.

MS LEESON: Thanks, Clay. I mean, I think, from my perspective the distillation that you've got makes it, you know, I understand that. What I'm not quite sure of is what's sitting behind those? So in terms of what comprises the capital outlays. And if it's a different stand-off from Ravensworth then it's simply, you know, a matter of still understanding what the elements are but clearly there will be different costs associated with each. So if we could just start with that list for the beginning that might be enough. But certainly we invite you provide any more information or more follow-up with further questions.

MR PRESHAW: Sure.

MS LEESON: Thank you. Is there anything else on the mine planning process we want to talk through at the moment?

PROF. BARLOW: Well, just one. Perhaps, we're going to submit some detailed questions to Clay and Steve et cetera (not transcribable) them because, you know, I think an addendum question for me, and Steve just mentioned the sort of replacement of the fleet and we, you know, as Commissioners don't have the knowledge to know what the usual replacement rate of the fleet is and so, you know, what is the cycle of turnover of the fleet? And therefore, that might determine what expense would be required to replacing the fleet. But because we understand as it's an operational mine now, there is a fleet. But it would be what the turnover of that fleet is.

MR O'DONOGHUE: We can provide that Commissioner. I mean, there is some detail in scheduling in the, in, I guess, the cost-benefit analysis in particular where there's certain cash injections coming in.

PROF. BARLOW: Yeah.

MR O'DONOGHUE: I can provide that. But also, I guess, there's, they are, they are going from 4.5 million tonnes per annum to 10 for the Glendell site. So it is, it is a production rate increase that they're proposing as well. So there's, you know, there is additional fleet required for that. Even though we're looking at an integrated operation across the, across the, you know, the Mount Owen Complex as well.

MR PILTON: And what's the reason to take the sort of 10 million tonnes a year as opposed to the 4.5 million tonnes? Is that absolutely necessary or is it just to get greater profit in the short term or what?

MR O'DONOGHUE: No, it's to maintain, when you're looking at it from a complex point of view, the Mount Owen MIA has a, has a processing rate of 17 million tonnes

across the different streams that are coming from Mount Owen in the different pits. I guess, the strategy for the company is to maintain that production rate as, for example, as Mount Owen sort of ramps down and the other pits ramp down they want to, you know, maintain, and Glendell would pick up and they'd maintain a, you know, consistent production rate across the complex for the (not transcribable) life.

MR PILTON: Okay, thank you. Understood. Thank you.

MS LEESON: So essentially they're deploying resources from mines that are being depleted and effectively closed across to Glendell?

MR O'DONOGHUE: That's right. So there'd be some, there'd be some sort of redeployment in that and sort of retention of the, of the work, of the workforce but across the complex. So it is a, you know, in some ways it's an integrated strategy that, that the company's looking at here.

MR PRESHAW: So if I understand there the sort of line of questioning correctly, I think, what you're really interested in is what is the, what are the various capital costs that are involved for this mine plan or others? Some of that information is available, I can see the in MineCraft report. But I also note that there's, as you mentioned a significant amount redacted. And I do think we need to consider whether we can provide a version that's not redacted. And I'm not sure why we couldn't do that for the Commission if it was kept in commercial-in-confidence. And there's also some information in the, I think, it's appendix 30 of the EIS which I assume is one of the economic assessments, Joe?

MR FITTELL: Yes, that's the economics report. Yep.

MR PRESHAW: So that's where you can find some of the information, noting that some of it is redacted. Now, as I said, the line of questioning seems to be about capital costs and any particular, if you're not, if the company's not having to spend capital or a lot of capital on, you know, CHPP upgrades et cetera which is the case for other projects where is the, where is the cost coming from. Now, yeah, some of that information is actually redacted. Some of it is, as Steve said, certainly about the mine fleet replacement, a significant portion of it is. It's also related to, as I understand it, just the cost per tonne of, of extracting the, the product which is apparently according to the information we've been given relatively high for, you know, an existing brownfield mine extension. But I think we do need to give you some further information about how that is broken down, in terms of capital costs.

MS LEESON: Thank you.

MR PILTON: Thank you.

MS LEESON: And we do have ability to receive commercial-in-confidence information and keep that confidential. It makes us think about how hard, how much we need information because of our general approach to openness and transparency and publish. So we will give that some more detailed consideration and confirm to you what we want. My intuition at the moment is that we will probably will ask for it.

MR PRESHAW: Yeah.

MS LEESON: But we'll just give that some more thought. Thanks.

MR PRESHAW: Look, I think it's important for you to have it. I'm looking at a version that is not redacted and comparing it to the one that is, and it does explain why there is that high upfront cost, capital cost, and why the per tonne cost for producing the coal is high in this instance. And I do believe both of those factors are important in understanding the various options that we're considering whether or not they're feasible.

MS LEESON: Thank you. I do appreciate it. That might be, I'm just mindful of time. That might be a good spot to then start talking about emissions which will no doubt bring us into the CIE work and the EY work. Some quite different assumptions underpinning both pieces of analysis. I have a question which was triggered this morning, I believe, you advised the team that there was a typographical error in the assessment report in table 6 at page 63 which should have read "Fugitive emissions from exposed coal seams being 3.8 million tonnes" not 3.4. And it might be my recollection or the transpiration of different, you know, documents and what have you, but I have in my mind that we're talking or we've been advised Scope 1 and 2 emissions of 9.9 million tonnes. And if I look at this table in front of us for Scope 1 and 2, even with the 3.8 (not transcribable) total of 6.4. Can you just talk us through the changes that have taken it from 9.9 back to 6.4 million tonnes?

MR O'DONOGHUE: Yeah. I can do that. I think the EIS originally reported 9.9. There's a couple of different methodologies of how you can work out your fugitive emissions. There's a, there's two approaches, one is based on just emission factor, it's called emission factor 1, I think, where it just takes the Commonwealth emission factor for working out emissions. Subsequent to the, which sort of led to the higher fugitive emissions sort of calculation in the EIS. As part of the submissions report the company, the other alternative method emission factor 2 is to get, is to get site-specific data based on, on actual, you know, monitoring of gas content in the, in the coal seam.

So the company did go through a process of changing the emission, the way they, they calculated the fugitive emissions. That brought it, that did bring it down to the, to the, I think, the 6 point, around the 6 million tonne figure for Scope 1 greenhouse gas emissions. Now, the other change in the, the other, in our report - - -

MS LEESON: Just to clarify, sorry, Steve, just to clarify there.

MR O'DONOGHUE: Yeah.

MS LEESON: Your method 2 is effectively onsite testing, is it?

MR O'DONOGHUE: That's right. It's onsite sampling, so they're actually going into the coal seams getting samples below the coal, you know, or various coal seams across the site, you know, representative samples and then that informs the gas content and they can develop emission factor based on that sampling.

MS LEESON: Okay. Thank you. Just a quick side question, is that site sampling's showing significantly different gas volumes for different, across the different seams?

MR O'DONOGHUE: There is, there is some variation, like it's predominantly methane that, that they are sampling. There is, there is variation across the, across the, where it is in relation to the anticline in particular. You know, so the sampling sort of covered various spots from, you know, east to west and to north to sort of look, get that, that variance, I guess, in the – and they broke it down into, you know, various sectors across the site of varying gas content to inform that sort of emission factor.

PROF. BARLOW: Steve, is that (not transcribable) included in the amendment report to the EIS?

MR O'DONOGHUE: It is. There's some detail, there's some detail in there about how they did that and, I guess, how they - - -

PROF. BARLOW: Is the data of the, you know, the basic, the spatial variation of methane content of individual seams across the site?

MR O'DONOGHUE: There is, there is, they do, they do, there is discussion in there about where on the site and how they, and how they produce the sector information. So I don't think the raw data's there or a table of raw data but there's certainly information in there about, you know, what parts of the site, where they, where they're monitored and what seams that they were targeting. I'm happy to, I'm happy to point

you in there and if you need any more information on that I'm sure we can get some, ask the company for more, for more details.

PROF. BARLOW: Thank you.

MR O'DONOGHUE: But just in saying that, is one thing, it is driven by the, I guess, the emission factor methodologies that the Commonwealth, under the Commonwealth scheme. So they would need to be in accordance with that and other requirements under the Commonwealth NGER reporting requirements in terms of developing emission factors.

PROF. BARLOW: Yeah. Yes, it is that method to under the NGER's methodology for open-cut coalmines. That's as you correctly say, you know, method 1 is the default method, method 2 is the measurement method in individual mines.

MR O'DONOGHUE: So just, so we can provide more information on that. But just on the, the other, the other issue just to note is that the assessment report, and I think the, the submissions report and the assessment report figures in, in the table were based on a like a global warming potential of methane of 25. Which was, which was, that changed, I'm not sure of the date that that changed, it went from 25 to 28. And that's basically a factor that's put in about if methane gas, how you factor that up, relative to carbon dioxide emissions to make it a carbon dioxide equivalent. So that changed globally in the last year or so. I can provide advice on the exact date. In terms, the assessment report has 25. What we ask the company is to provide some additional data on a global warming potential of 28. And that's, that's information in terms of the conditioning we did we applied and the performance measures for total life of CO_2 emissions. That was based on a global warming potential of 28 in that. But we can provide an updated table. Table 6 that's in our report, that documents the equivalent for a global warming potential of 28, which brings it to about 6.47 million tonnes compared to around 6 I think.

MS LEESON: Steve, the emissions that, call it the 6.4 million tonnes that are proposed is obviously split across diesel and fugitive emissions?

MR O'DONOGHUE: Yep.

MS LEESON: Are they unmitigated emissions calculations? Or are they mitigations that Glencore proposes and the department accepts that would reduce those emissions further? And on the back of that are you satisfied with any mitigating options that the applicant has put forward?

MR O'DONOGHUE: Look that, in terms of the fugitive emissions it's unmitigated in that we did, we did go back to the company to, to really query them on the ability to capture, you know, from pre-drainage to capture, capture the methane and look at options to, you know, either, either burn, flare it or power generation. You know, essentially to convert the methane into carbon dioxide so it reduces the global warming potential aspect. The, the company did provide some, like, additional information around that about the feasibility and reasonableness of, of, of doing that, that we, we did have, we did have a look at. Part, part of gets back to the issue of, there's, there's a couple of aspects there. One, one is the, the gas content itself. It's a reasonably low gas content mine, with the majority, you know, being less than, then four metres cubic per tonne of, of gas and, and a large area, you know, in the, in the order of one metre cubed, cubed per tonne. So that's a, that's an issue in itself in that when you look at where, where, where gas drainage is undertaken, it's, it's predominantly in, in underground mines.

Generally, they, they've got quite, much higher gas contents, you know, probably in the order of, of, not, not always. We sort of explored this in the, in the recent Narrabri underground mine, as well. But, but you're, you're probably looking at well above, you know, double the sort of gas contents we've got here more, you know, up to 11 or 12 metres cubic per tonne. The, the target to get down for the underground mines is trying to bring it back to the levels that, you know, 3.5 to four metres cubic per tonne is that, that, that can practically get it down to, in, in underground mines as a, as, as a general sort of rule. So we're, we're talking about with the, the mine here and gas contents where it would be difficult to, to, you know, further reduce the gas content any further through pre-drainage.

The, the other issue is that, like, with the geology, there's, with the, the multi-seam, the thin, the thin coal plies and, and the, and the, it makes it very difficult to, to capture and, and get in there and, and pre-drain from a technical point of view, as well. So there, there's certainly some major constraints in being able to do that.

PROF. BARLOW: There's that, yeah, we've had a look at that and the, you know, the width of the, or the depth of the, the seams are quite narrow and also they're bifurcated on occasion and also with the anticline bending a bit. So it's not easy to get in there. But the other question we had about was at the end of the life of the mine and in the closure of the mine, what procedures would be used to try and seal those exposed coal seams, bearing in mind the other part about this, there's quite a number of coal seams that would be exposed in the mining process. And there's really two questions, is what would be the process of sealing those seams where the face will effectively be buried in rehab, and the second one will be, presumably, faces left exposed in the void area but whether those faces are actually underneath the water or not, we haven't quite

been able to determine yet. So the question is really was there consideration for sealing the exposed seams at the end of the mine and, if so, what was the process?

MR O'DONOGHUE: Commissioner, on that one, the, certainly, there, there is the ability to seal off, seal off exposed coal seams. It's something that we can probably get back to you with more information. We, like, what we have, what we have recommended and closure, closure is part of this, is that in the Air Quality and Greenhouse Gas Management Plan, that, that there's ongoing review of, of abatement technologies, including for closure stage to, to look at, you know, even post-mining to look at ratcheting down the targets for, for greenhouse gas emissions. So there's certainly ability in that, with the review and input from our Climate & Atmosphere Group, Science Group to, to look at that through the, the life of the mine and, and options for, for minimising greenhouse gas emissions, you know, through the post-closure phase, as well. But we can provide more information specifically on that and as part of a response back to you, as well.

PROF. BARLOW: Thank you.

MR O'DONOGHUE: Joe, is there anything you can add more there?

MR FITTELL: Probably, probably not at this stage, yeah. I think let's, let's take it on notice and we can get back to you with a bit more detail.

MS LEESON: Can I just take us back to some of these processes. It's stated in the EIS that there'll be, or in response to submissions that the project will get a baseline emissions control. For my benefit, as I don't understand this process particularly well, at what point will they get that baseline above which they will need to pay a carbon tax on emissions? Is there a rule of thumb for that? If you could explain the procedure, it would be good.

MR O'DONOGHUE: Look, it's probably, that, that's under the Commonwealth legislation under the, the safeguard mechanism where, where that's, that's been introduced under the, the, you know, the Commonwealth requirements. So, so all, all, this would apply to all, all coalmines because they'd trigger the reporting requirements under the NGERS Scheme. So, certainly, they would need to provide, at the moment, like, Glendell at the moment would have a, would have a baseline for the existing operation. They'd, they'd have a baseline level they'd be operating to at the moment. My understanding, and, and we can provide more information on that is there's a, there's a three yearly review of that figure that the, that the Commonwealth goes through in terms of information that's provided by the company and, and reviewing whether it's still appropriate.

So my understanding is that if, if the project were determined and proved, that, that they'd be required to report back to the, to the Commonwealth and, and establish a new baseline sort of level to replace, to replace the one they've got there for the existing Glendell Mine.

MS LEESON: Thank you.

PROF. BARLOW: Just supplementary there, Steve. Do we know what methodology they used to establish that baseline? Did they use method 1 default or did they use actual site emissions, 2?

MR O'DONOGHUE: For, for the current, for the current project, I'm not too sure, Commissioners, but we can, about that, but we can make, we can speak to the Commonwealth or the, the company about how, you know, what, what method they used to establish the, the baseline, like, I, I suspect it's the, the, the method 1 because it's only more recently they've been collecting the data but, you know, that inform the, the environmental assessment and the submissions report but, look, we can, we can clarify that with the, the Commonwealth or the company.

PROF. BARLOW: Yeah. Thank you. Can we move to the diesel usage now?

MS LEESON: Certainly.

PROF. BARLOW: We had some other questions about the diesel usage. As, you know, are well aware, the diesel usage of the 6 million. It's something like two and a half, 2.8, somewhere in there. And in your assessment report and the suggested conditions, you say that they should use their best endeavours to reduce those emissions where possible. What options are available to them to do that, you know? Do we know if they turn over their fleet, are the new, you know, the new, big coal trucks, are they significantly better in emissions or are they the same? Are there any savings to be made in plant turnover or, indeed, we'll get to in a moment, is there another way of doing it?

MR O'DONOGHUE: I guess with diesel, there's a couple with diesel emissions. Part of it's, part of it's mine planning, you know? So, so it's really about reducing, you know, haul routes, you know, for diesel usage, like, over time to make it more efficient. And it's in the, like, clearly, it's in the interests of the, the mining company to reduce costs, so it's in their, you know, interest to ensure the mine plan is as efficient as possible to, you know, to reduce emissions. I guess over, over the life of the project, then, you know, if, if they're changing fleet, there's always, there's

opportunity to look at, as part of capital investment, looking at, you know, more diesel efficient fleet over time as technology changes. And, you know, I guess over the life of this project, there'll be further development in, even battery operated vehicles, which, which may be, may become, you know, the, you know, a financially viable option that could be considered. But one of the issues there is (not transcribable) when you buy fleet, I guess, and make that capital investment in the lifetime of it, which is the important duration.

Just on the, I was just going to have a look at the, the condition just to clarify. 'Cause I guess with the, with, since diesel's under the sort of Scope 1 there, so it is, it is part of the performance measure, the annual five-year rolling and the lifetime performance measure. So, so it, it's, it, it's part of that review that, in the accord, the ongoing review every three years in the quality management and greenhouse gas management plan to look at, to look at, you know, what, what further reductions that they can get on a three-yearly basis, get input from the EPA also, and, and the Climate and Atmospheric Science Branch in providing advice on that and on potential abatement options for, for diesel, for example, and, you know, potentially ratcheting down the emission targets that, that we've set. So that's all part of the Scope 1, you know, emissions target as well.

PROF. BARLOW: Steve, the other question, and this might be slightly naïve from us, but one of the striking features of that intensively mined area is the number of coal conveyors that seem to be running everywhere. And so was there any consideration in, in instead of undertaking, you know, a haul truck, which it may be your joke, inform us, but a round trip to me might be at least six kilometres and it could be higher. Would there be a significant saving with a conveyor from the mine to the coal plant, rather than trucking it all the way?

MR O'DONOGHUE: Look, it's probably something that we'd need to get some feedback from the company on in terms of costs and viability of that option on that. I probably can't provide a, like, response to that, but we have (not transcribable).

PROF. BARLOW: I don't expect you to at this point, Steve.

MR O'DONOGHUE: Yep.

PROF. BARLOW: But I was just sort of raising it. It would be good to get some feedback on that.

MR O'DONOGHUE: Oh, look, we're happy to, like, to respond to that one as part of the sort of the questions posed today.

MS LEESON: Thank you, thank you. Look, in the interests of time, because it is marching on towards 11 o'clock, we're clearly not going to get through all the things on the agenda, and there are many, many questions one could ask about this project, but can we just wrap up on a little bit of discussion around the economic analyses that have been done. It's, we've got two reports in front of us. There's the EY report that was done for Glencore, which has a very high net present value of the mine and it's very positive, I suppose. On the other hand you've got the independent report by CIE, which is a much more conservative assessment of what the value of the mine might be. I'd really like the department to give us some thoughts, and your considerations in doing this, around the different assumptions that both organisations used. I mean, they used different assumptions about which carbon price to use. They used different assumptions about how to apportion the emissions costs to New South Wales, and they also used different assumptions around coal price. Now, coal price will wander all over the place over the 20 years that are proposed for the mine, and I understand they're pretty high at the moment. But can you just take us through how you've rationalised or thought through these different assumptions and how they fit? I mean, I think they both purport to be following the guidelines that New South Wales has in place. So your thoughts and comments on that if you could.

MR O'DONOGHUE: Look, look, I'll, look, I'll touch on that. I mean, I guess the key is that there are, we do have the economic guidelines for mining projects that were introduced, you know, probably in the order of, you know, five years ago. There's technical notes, notes around that. But we have, we have found there's, you know, consultants have, have quite a varying view. If you look back on the, on the, I guess on the assessments that have been done particularly in the last three years, and by, by a number of, not just by CIE and Ernst & Young, but Deloitte and various other ones, there are quite a different range of methodologies that are used both for – particularly around greenhouse gas emissions, and that's an apportionment issue, and, and the carbon price, you know, in terms of trying to come, there's some guidance in the economic guidelines on that about, about what to use, which, which inform it.

MS LEESON: And what is that guidance? Can you tell us what that guidance is offhand?

MR O'DONOGHUE: It does set, in terms of apportionment, and this is one of the issues, in terms of apportionment, the guidelines, you know, refer to, to apportioning, you know, costs to New South Wales. So the guidelines in general, both the costs and benefits side, you know, do, do rely on some sort of apportionment. So it's really looking at, at New South Wales. So, so I guess the technical notes and, and the guideline don't provide specific methodology on whether it should be apportioned

globally or whether it should be apportioned in New South Wales or whether it should be apportioned to Australia. So, so there has been different approaches. Our sort of view on it, view on it, and consideration of it for, I guess for the Narrabri project and, and for this project as well is that it, it informs I guess that different apportionment methodologies inform the sensitivity and range of net benefits. So it's another, it's another way of looking at, like, similar to coal price or exchange rates or carbon price. What's the, what's the range of net benefits compared to, like, a baseline sort of assessment.

I guess in the case of Glendell, depending on the apportionment approach, I guess all, all the, all the sort of methodologies are still showing a, like a, a positive net benefit. When you apply, I guess, the higher carbon price and the apportionment just to New South Wales, it reduces to, you know, from CIE sort of estimates down to 150 million up to 305 million, depending on the carbon price, compared to, I guess, the, the approach by the company's consultant in apportioning it globally, which really does reduce the, the externality to a very low level. So certainly, you know, we've considered that. We've also considered the discussion around between the different views on supplier benefits and, and employee benefits, which are quite big quantums in the Ernst & Young sort of analysis in that. Agree, CIE had a different view on that in terms of that, but again, I guess it's still, we're still looking at a positive net benefit here. There's also the local effects. Now, apart from the CBA, there's also the local effects analysis, which puts a different, different sort of slant on, on not so much net benefits to New South Wales but, but sort of regional and local benefits, which still showed, you know, quite substantive benefits to the region with the, with the mine and ongoing employment and input back into the regional economy. So there's a number of elements we, you know, we look at in the economic evaluation and more broadly in weighing up the public interest, you know, through, through the evaluation, not just the economic aspect, that sort of, you know, have led to our conclusion, overall conclusions and recommendations on the, on the project.

MS LEESON: That's been helpful, thanks, Steve.

MR PILTON: Can I just ask a question about, has any thought been given to the possibility of the market just collapsing at some stage in the future and what happens? Would it require an early mine closure or whatever, and what happens to rehabilitation in that case?

MR O'DONOGHUE: Not, I mean, not specifically to, to collapse of the market, Commissioner, but just in terms of, in terms of the overall security, like, rehab security, there's, there's a whole regime there that the Resources Regulator in the NSW Government requires quite substantive security bonds for rehabilitation. So it

does cover – and the intention there is, is to recover, to ensure there's funding there to complete rehabilitation in accordance with the objectives. If, if a company did become insolvent or couldn't meet their obligations under the, the Mining Act and regulations in terms of rehab. So there's certainly, there is a whole regime there in terms of security, security around that. There's other aspects there, like, you know, social impacts if that were to occur and in terms of, you know, early closure that, you know, would need to be considered. But from a, from a rehab point of view, you know, there are mechanisms there to, that the funding's there to complete rehabilitation to the standard required.

MR PILTON: Thank you.

MS LEESON: Thank you. Snow, do you have any further questions for the department today?

PROF. BARLOW: I don't think so, thank you, Di. No, I think thank you for your, you know, fulsome answers and taking some questions on notice, but it's been a good session.

MS LEESON: It has indeed, it's been a very fruitful session.

MR PILTON: Hear, hear.

MS LEESON: So we thank you for that and we may well come back to you with some additional questions after we've digested what we've discussed today. So thanks for the, the effort gone into preparing for today. We will see you next week at the public hearing, no doubt, and we look forward to that, but I do really appreciate what you've done today. We are receiving submissions, as you would expect, into the website, and if the department has the capacity to have a look at some of those, and feel free to provide any sort of further information either directly to the Commission or through the public hearing next week on, on some of those submissions, that would also be well appreciated. So thank you for your time this morning. We'll close the meeting.

RECORDING CONCLUDED **[11.02am]**