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# TRANSCRIPT OF PROCEEDINGS

TRANSCRIPT IN CONFIDENCE

O/N H-953132

**INDEPENDENT PLANNING COMMISSION**

**DETERMINATION MEETING**

**RE: YASS VALLEY WIND FARM MOD 1**

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|---|---|
| **PANEL:** | **ALAN COUTTS**<br>**PROF ZADA LIPMAN**<br>**ADRIAN PILTON** |
| **ASSISTING PANEL:** | **DAVID KOPPERS**<br>**JORGE VAN DEN BRANDE** |
| **PROPONENT:** | **JOHN TITCHEN**<br>**TOM NIELSEN**<br>**JEFF BEMBRICK**<br>**SUNNY RUTHERFORD**<br>**MEDARD BOUTRY** |
| **LOCATION:** | **IPC OFFICE**<br>**LEVEL 3, 201 ELIZABETH STREET**<br>**SYDNEY, NEW SOUTH WALES** |
| **DATE:** | **9.09 AM, MONDAY, 29 OCTOBER 2018** |

MR A. COUTTS: Good morning and welcome. Because we're recording this I am going to go through a bit of a formal introduction and then we can begin. This is part of a new process we've got now of actually recording these meetings as well as the public meeting. Before we begin I would like to acknowledge the traditional owners of the land on which we meet and pay my respects to the elders past and present. Welcome to the meeting today on development application SSD669891 in relation to the Yass Valley Wind Farm from Goldwind Australia Proprietary Limited, the proponent, who is seeking to modify its development consent including to increase the approved wind turbine tip height from 150 metres to 171 metres, reduce the maximum number of approved turbines from 79 to 75 and increase the vegetation clearing from 68.3 to 1079.8 hectares.

My name is Alan Coutts. I'm chair of this IPC panel. And joining me are my fellow commissioners, Professor Zada Lipman and Mr Adrian Pilton. We also have Jorge Van Den Brande from the secretariat and David Koppers from the secretariat. In the interests of openness and transparency and to ensure the full capture of information today's meeting is being recorded and a full transcript will be produced and made available on the Commission's website. This meeting is one part of the Commission's decision-making process. It is taking place at the preliminary stage of this process and will form one of several sources of information upon which the Commission will base its decision.

It is important for the commissioners to ask questions of attendees and to clarify issues whenever we consider 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. We might now begin. Perhaps before we begin, if you would each like to just introduce yourself for the purposes of the transcript. Then, I guess, again for the purpose of the transcript, when you're speaking if you just say who you are so the transcript picks it up. All right. Thank you.

MR T. NIELSEN: Sure. Start with myself, I'm Tom Nielsen, the development manager for Coppabella Wind Farm.

MR J. TITCHEN: My name is John Titchen. I'm the managing director at Goldwind Australia.

MR M. BOUTRY: My name is Medard Boutry, environmental adviser for Goldwind Australia.

MS S. RUTHERFORD: My name is Sunny and I'm the community engagement manager for Coppabella Wind Farm.

MR J. BEMBRICK: My name is Jeff Bembrick, development and compliance manager.

MR COUTTS: Okay. Thank you.

MR NIELSEN: Very good. I will start with the presentation. I've also got some printouts that we can hand down potentially. So it's quite a hefty presentation so I will have to be reasonably brief on the slides but happy to have questions throughout as we go through the process. And if I run out of time then I will leave you guys to take it away and we will take any questions on notice.

MR TITCHEN: So this Tom Nielsen who is - - -

MR NIELSEN: Yes, sorry, Tom Nielsen speaking. So, yes, Tom Nielsen. I will be presenting the slide pack today. So the contents we will go through, I will just give a brief overview of Goldwind and Goldwind Australia, give an overview of the project, why the modification was needed, key issues that were considered throughout the modification and the conclusions and summary of the assessments taken go into a bit about our consultation with the community and then conclusions and then open up for any final questions if we have time.

So a bit about Goldwind. Goldwind is a global leader in manufacturing wind turbines across six continents, over 20 years of experience in the wind industry, one of the larges wind turbine manufacturers. Globally we have over 44 gigawatt of wind power installed with over 28,000 turbines installed worldwide.

MR TITCHEN: That was – John Titchen here. That was at the beginning of this year so it has grown since then and 44 gigawatts is approximately the same scale as the National Electricity Market installed capacity. So quite large but obviously with the production depending on the wind.

MR NIELSEN: Tom Nielsen speaking again. What makes Goldwind a little bit different is the – our wind turbines do not have a high speed gearbox. They instead have a permanent magnet direct-drive drivetrain. This increases efficiency and also reduces the magnet costs and downtime. So Goldwind Australia established in 2009. We have office in Sydney and Melbourne and we also have multiple wind farm site offices which includes our Coppabella Wind Farm site office down in Binalong. Over 160 employees and we're partnering across the entire wind farm industry, I guess, through engineering, transport and earthworks contractors for the delivery.

We have three major operating wind farms and one solar farm and we're just finishing off one solar farm up at White Rock and have started construction a gigawatt in wind projects in Victoria and Tasmania.

MR TITCHEN: A gigawatt being 1000 megawatts.

MR NIELSEN: Yes. We are preparing for construction, obviously, on the Coppabella Wind Farm pending this process. We also have a large suite of other projects in the pipeline for the future years. So Coppabella Wind Farm, starting off back for the original approval, it was, I guess, a long approval process that started

back in 2009 as the Yass Valley Wind Farm. It was reduced and approved in March of 2016 and by – that process was run by Epuron. Goldwind acquired the project in February of 2017. As already mentioned at the start, there were 79 wind turbines in this original approval. It also had EPBC approval at the federal level as well.

The grid connection is for the connection into the 99M 132 kV TransGrid power line that runs between Yass and Murrumburrah. And that line is to be upgraded by TransGrid to allow a full 280 megawatts at the connection point. There are 11 host landowners and a relatively low density of non-host properties around the project. So no residences – non-hosts within two kilometres. A small proportion of six residences within three kilometres and then all the way out to five kilometres we've got numbers there – 13 to four and 26 to five which includes the town of Bookham which the five kilometre line kind of cuts through the middle of. So community engagement, we've obviously been doing a bit. We will get to those slides towards the back end of the presentation. It's obviously a big new industry and opportunity in the area and we have construction plans to start in early 2019.

So the original Yass Valley project that was put forward was a much larger project, originally put forward as 152 turbines. During the original approval process, which was that very lengthy eight or nine year process, half the project was really carved out as Marilba was not approved and 79 turbines in the Coppabella Hills precinct was approved. Important to note that Conroy's Gap which was part of the original proposal was approved as a separate wind farm some time ago. The project name change in changing to Coppabella Wind Farm, we know it's being assessed in this process as the Yass Valley Wind Farm because that's what the approval is based on.

We have renamed it the Coppabella Wind Farm on the basis that only the Coppabella Hills precinct of the original Yass Valley Wind Farm was approved. It has largely pulled away from the Yass Valley Council area where the original project was largely based. And so we wanted to centralise more around the Coppabella Hills and that is a reflection of where the turbines are and as well a more community – localised community focus. The existing consent included some clear constraints on vegetation which we will go into in a bit more depth, that it just stopped us from being able to really get on and build the project when we took it over in 2017. And obviously the sub-optimum envelope for the turbines meant that we – it would have been non-competitive in the market to build a smaller turbine in these hills which we will, again, go in to.

The original approval also didn't take into an engineered design of how to get around the complex hills with these roads and that's reflected in the very tight vegetation limit that was approved in the first place. So going into it, this is just a map of the layout as it currently stands with the four removed turbines through this process highlighted. So going into a bit more detail, the reason for the changes, so there's two main areas to the modification. The first being the internal roads and hardstands needed a better design. They were not – there was no consideration of the engineering of cut and fill design or any batters in the design. It was just the vegetation allowance was just for a centreline road that was eight metres wide which

was a six metre road with a one metre drain either side. Obviously to get around the complex terrain it was required to actually do an engineered design. I will go into more on the next slide to show that a bit better.

In that process the – when the first project was put forward, 150 metre tip height was essentially – back in 2009 – was where the best turbines were. Obviously being in 2018 now that has changed and most projects now are looking at 200, 200-plus metre tip height. We didn't want to go that high. That project was approved at 150. To make it competitive and to get as cheap as possible renewable energy onto the network, we found a turbine that was suitable for the site from our suite of turbines and pushed it just to the limit to allow that turbine in which was the 171 metre tip height. There was also some minor changes. There was a bit of overhead line approved around the site. We decided to put that underground and obviously apply for a new development corridor that came with the new road layout across the site.

So this is really the crux of what was approved compared to what we have asked to be approved. The image on the right shows an incline – a climb of 50 metres between – 50 metres in altitude between two turbines. The approved road was put in as just a simple eight metre wide corridor or eight metre wide road that ran straight up the hill. On the kind of terrain we're talking about, that was just impossible to build without affecting the vegetation around it. So we went and did a very detailed engineering design that took into account the – so what we've got is five metre contours in these pictures. We actually have mapped the site at .5 metre contours. So the .5 metre contours is what was shown – what we did our full design on. And that meant that we could get really accurate with how much cut and fill we needed.

You can also see that the road snakes up that hill a little bit, sticks to the contours rather than running straight up. So there was some minor alterations to the road routes. There was also – the assumption was on the original approval that all the underground cable was going to be buried under the road. That's fairly inefficient and can be very difficult from a construction standpoint so we have, where possible, used underground cable routes as well and asked for that vegetation increase based on the requirement to allow that to occur.

The other – obviously knowing what turbine we wanted to use, we used those exact dimensions for the trucking and of the weights for the tower sections and of the weight and the dimensions for the blade sections so that we could design the road well. We also had to widen the roads on sweeping bends a bit more so you could get those trucks around the bends which I will show you in the next photo. The road design for this is based on a 5.5 metre road with 1.5 metre shoulders and one metre drains so a total cross-section of the road section of 10.5 metres.

MR COUTTS: What were the original designs based on the road width, do you know?

MR NIELSEN: Six metres with a one metre drain either side so a eight metre width. What we also have done – and this is from experience on – we've recently built White Rock Wind Farm and - - -

MR COUTTS: Sorry, just before you go on.

MR NIELSEN: Yes.

MR COUTTS: Eight metres is your design.

MR NIELSEN: Eight metres is what was done in the original approval before we took over the project.

MR COUTTS: Okay. So what is it now?

MR NIELSEN: 10.5 metres is what we've put in.

MR COUTTS: Okay.

MR NIELSEN: Which is the – so 5.5 metre road, 1.5 metre shoulder, one metre drain.

MR COUTTS: Yes. Okay.

MR NIELSEN: That does get wider when we go around bends to allow the axles of the truck to come around.

MR COUTTS: So, basically, in essence your new design is really saying that the original design – simply the roads weren't wide enough to start with. And because of the larger tips – larger turbines, you need a slightly wider road anyway. Is that in essence what we're saying?

MR NIELSEN: I don't actually think the blade dimensions made a great deal of influence in this. It was - - -

MR COUTTS: On the corners, perhaps.

MR NIELSEN: On the corners slightly. I think the main issue – because this project had considered up to a 60 metre blade. So we were only ..... extra 10 metres on that and a lot of that is overhang when you talk about blades. But the main issue is that they hadn't considered cut or fill. So no batters in the design. So they just – they had had - - -

MR COUTTS: They just built a road, basically. They didn't worry - - -

MR NIELSEN: Yes. There was a road. Yes.

MR COUTTS: Okay.

MR NIELSEN: My understanding is it was put in as an indicative layout of where the roads were going to go and an indicative – this is our vegetation footprint and then that was stamped as this is your limit.

MR A. PILTON: What sort of roads are we talking about, like dirt roads or - - -

MR NIELSEN: Yes, they won't be sealed.

MR PILTON: Okay.

MR NIELSEN: Yes. They will just be graded.

MR BOUTRY: Gravel capped.

MR PILTON: Gravel capped.

MR BOUTRY: Yes. There's a couple of photos coming up.

MR NIELSEN: Yes.

MR BOUTRY: Okay. Thank you.

MR NIELSEN: Another note – and I've just noted in the picture, a five metre construction buffer. So in order to build the batters around your roads generally you need to run vehicles in the bottom of them. And so in wet terrain you will have tyre marks go through there and so from our experience of White Rock Wind Farm and Gullen Range Wind Farm, both on hilly terrain, we decided to put in an extra five metre construction buffer around the whole of the infrastructure around the site which is like a temporary impact area. That added 30 hectares, approximately, of our allowance that we requested.

MR TITCHEN: John Titchen speaking. One of the key things we find is during construction you're just focused on complying with the limits and if you get close to the limits it really – you know, you need to put in another MOD in or something and then it really becomes difficult to manage. So we wanted to clear the path from the beginning with this MOD rather than have to come back because we're getting close to a limit. Here it's a pretty big difference though so there's no way we were going to be able to do what we planned within this limit.

MR COUTTS: Okay.

MR NIELSEN: So this is just some examples, some photos from White Rock. And this shows – so the first shows the slight road widening as we sweep around the bend there. It also shows that impacted area at the base of the batters. It just shows that

you can impact that area when you're building those batters. And so that's why we asked for that extra temporary impact area.

It also – as you can imagine, if the approval is just for that road that you can see there, you're not going to be able to get up complex terrain without building suitable – building that road up suitably so that – one that will last for 25 years and, two, that – which is the life of the project – or, two, that it will drain properly and not just wash out. And on the right here we can – on the right photo you can see some areas where some cables have gone in on the bottom side of that road rather than running underneath the road. Obviously all of this needs to be revegetated but that's not what is considered when we're talking about it – asking for a vegetation impact.

So going on to the wind turbines so the wind turbines we've chosen for the site is the Goldwind 136 4.2 MW turbine. By utilising this on 69 of the 75 locations on the site we can get up to 900 gigawatt hours of energy which is roughly – or approximately, based on the New South Wales Wind Farm Greenhouse Gas Savings Tool, 120,000 New South Wales homes. Again, no high speed gearbox in this turbine. High efficiency and low RPM on this turbine. Just a side note, most of the energy for this project comes from easterlies and – in summer and then from the westerlies in – from the south-west in winter.

So key issues that were looked at: obviously biodiversity is the big one when we're asking for an increased vegetation allowance. Visual was the main one, when we're asking for the tip height extension, and – and then everything else, the heritage, noise, aviation, telecommunications and project benefits throughout were all considered throughout this process. So the biodiversity changes: obviously, there's 68.3 hectares to the 179.8 hectares. There was an increase in hollow-bearing tree impact from 251 to 282, which is a smaller step up. Obviously, when we – we've been conservative in our design so, as John said, we don't have to come back and ask for more later.

We wanted to be conservative so we can tighten later. If we go conservative, it means we have to offset more. So there's more cost allocated to offsetting. We've got to find more offset sites. If the way that – the way the conditions are drafted, those offset sites will be finalised in our final design. So if we get approval for a conservative area and then tighten it, the benefits come to use through, obviously, reduced vegetation impact, but then we have reduced costs on the offset. So there's an incentive-based system to make sure we reduce our actual footprint before construction starts in the design stage. This process has taken quite a long time for this MOD app, over a year. A lot of that time has been consulting with OEH to make sure that they were satisfied with our vegetation impact and our surveying of the site. They actually want us to go do some more surveying and confirm the site before we start construction.

MR COUTTS: How did those discussions go with OEH?

MR NIELSEN: They were – yeah. They were drawn out, and we went through various stages. They came on site. They asked for more surveying. We did that throughout the process. They came, and there were some areas where their surveying of site disagreed with our consultants', so we went to site and looked at all those. It was a very iterative process that took a number of months.

MR COUTTS: So in – I mean, my understanding of where you've left that, essentially, is there's still some discrepancy between your consultants and OEH in some areas, and OEH are satisfied, on the basis that you do surveys in the spring-summer months .....

MR NIELSEN: Yeah. So we couldn't – they raised in winter that they wanted some more sites surveyed.

MR COUTTS: Yeah.

MR NIELSEN: It's bad form. It's not against the rules, but it's bad form to do surveys in winter. So we are waiting for the right time of the year to start and do those surveys and finalise.

MR COUTTS: They're happy with that?

MR NIELSEN: Yeah. Yeah. So that's the basis of our arrangement to get this MOD app through – was we would commit to those extra surveys. Rather than trying to say that the consultants we've used have got the right surveys, we just – we commit to do more.

MR COUTTS: Yeah.

MR NIELSEN: We have a new EPBC referral. The original EPBC referral would have been fine for our vegetation impact and all the rest of it, but it just wasn't for the tip height. So we're – in going for a high tip height, we had to get a new EPBC referral. That is in the final stages at the moment. They just wanted to see the conditions of consent coming from New South Wales before finalising. The conclusions from the MOD 1 was that it would not result in significant state or federal increase to – or significant at all, sorry, to threatened species or in – or EEC communities, would not pose unacceptable level of risk to bird and bat species, and, through this process, we've strengthened the conditions of consent, including increasing the offset provision, including, through this process, adding new species to that offset provision.

This is a little bit difficult to see. It might be better to see on your printouts, but this is just showing the different types of biodiversity, the box gum woodland and the box gum woodland derived grassland. So the – that's the EEC that we've – largely discussing on site. So anything that is yellow and purple on this is considered grasslands of low or moderate to good-low condition. So, essentially, a lot of this – lot of these hills were heavily cleared a long time ago. Most of the farmers who farm

these hills also have really fertile farmland on the flats below. So they haven't maintained or been supering or really staying on top of the farmland on there, which means a lot of the native grasses are starting to come back, and that's why it's considered EEC. It's important to note that it's not pristine forest. It is grasslands predominantly.

MR COUTTS: How much of the area is sort of subject to dispute with OEH?

MR NIELSEN: Small portions, but, essentially, they – their point of view was if they went and looked at some sites that we had mapped as – sorry – not we but our – the consultants had mapped as an area, and they went and disagreed because their mapping had something else, that was changed on site. It was all rectified and remapped, but their point was, "Well, if we found a – an issue here, we need the rest of the site, essentially, checked." So we'll do a full walkover with the surveyors and just check that the current mapping is accurate, and, if it's not, it'll change. Obviously, we're not going to change the amount of hectares we're seeking. So if there's any change to that, we'll have to change ..... as I understand ..... so when we talk about the dry grasslands, this is an example of – I'll just look at where we are. That is an example of the yellow.

So box gum woodland derived grasslands, moderate to good low is these three photos here. Obviously heavily cleared, but there is some native undergrowth that is considered the derived grasslands. Of the box gum woodland, which is 20 per cent of what is being sought, it includes the understorey. So you can avoid every tree in an area. You're still affecting box gum woodland, and that's still what we're asking for. So we've done a lot of design to avoid trees, specifically avoid hollow-bearing trees, which are of high ecological value. So this photo here, which is actually the highest value area for – from the – under the EPBC approval.

PROF Z. LIPMAN: Excuse me.

MR NIELSEN: Yes.

PROF LIPMAN: Is this in the one situation, or is it spread throughout?

MR NIELSEN: Sorry?

PROF LIPMAN: Where is it situated? Is it spread throughout or - - -

MR NIELSEN: In small pockets. Yeah.

PROF LIPMAN: Small pockets.

MR NIELSEN: Yeah. Yeah.

PROF LIPMAN: Where is the main pocket?

MR NIELSEN: So, where these guys are standing, this is the main under EPBC.

PROF LIPMAN: Yes. Whereabouts on the - - -

MR NIELSEN: This would be just near the main construction compound.

MR BOUTRY: Should go back.

MR NIELSEN: Yeah.

MR BOUTRY: Then, the last slide, you can point it out to - - -

MR NIELSEN: This is right. So if I can - - -

PROF LIPMAN: Yes, please.

MR NIELSEN: Sorry. It doesn't help with the transcript, but I can point it out. So, under the EPBC, these – they're standing in this location here, but the main areas under the state approval of high ecological value are just in this area. Sorry. Not – yeah. Just here. There – this – so anything red, which doesn't show up very well, which is here and here – we've removed the turbine which is in the red, which was the moderate to good high box gum woodland, to avoid this area, but this area we couldn't avoid, but it's a small area.

PROF LIPMAN: Right.

MR NIELSEN: And I guess my point there is we've designed the road to avoid the trees where possible, but the understorey is considered part of the habitat. So this was where we just spoke about, turbine 46. We've removed this because it accounted for 58 hollow-bearing trees in moderate to good box gum woodland, which we only had two pockets of on site. This was one of them. So we've removed it. We've actually put an exclusion area around it on the development corridor, so we can't affect it. We also removed three turbines, in turbine 75, 76 and 77, which were approved originally. These reasons for this is largely due to community concerns and some submissions that were raised in the south-east corner, specifically around C06 and C60.

So by removing those turbines, we were able to really put a large proximity in between. So it went from – two kilometres was the highest – the closest resident in this area – out to 2.8 kilometres. So it put a bit more distance between the residences and the turbines, and you can see that little cluster in the corner is the Bookham township. So it has put a little bit more distance in between them as well. This is the C06 and C60. The – we just wanted to show what their viewpoint was, and I've pointed out the main turbines they can see. They're – 75, 76 and 77 have been removed. So the main viewpoints will be removed in these turbines. From the home office, you'll still see turbine 74 there, but the other two will be removed or have been removed. How am I doing on time .....

MR BOUTRY: It's 35 past.

MR NIELSEN: Yes. So Whitefields Road; this was a – this is an important area for us to focus on. A lot of public concern about the very old trees in this corridor. It doesn't – it's mainly exotic understory, so it's not considered high ecological value, from an EEC point of view, but it is a lot of old trees in superb parrot habitat in – where they may come through and next in the hollows, so the main purpose of our design was to keep it very tight and avoid impacting hollow-bearing trees.

MR COUTTS: Is this the road, there, on that top picture - - -

MR NIELSEN: Yes.

MR COUTTS: - - - on the left – on the right?

MR NIELSEN: Yes, yes.

MR COUTTS: So it's just a dirt road?

MR NIELSEN: It's a dirt road straight off the highway. So compared to other sites we've worked on where you have a lot of council road upgrade, this is only 1.1 kilometres of road we're upgrading straight off the highway. So it's actually – it's a good situation in that respect, but is a heavily treed area, so we need to very careful with how we upgrade that, so instead of make – it was actually a condition that we had to make a dual-lane road. We've tightened that and made it a single lane road with an overtaking section halfway up.

We've talked to the council about that to make sure that they were satisfied as well. In doing so, we were able to massively reduce our hollow-bearing tree footprint down from – there's 70 trees in the corridor. An early stage design looked at removing a large portion. We've taken that back to now only four hollow-bearing trees, which we presented to the Department of Planning and the Department of Planning will now set that as the limit for that site – for this area, so you will see that as part of your site visit. We'll drive down there and we can have a look at all four of those hollow-bearing trees as well if you like.

PROF LIPMAN: What road surface is it going to have under the upgrade?

MR NIELSEN: Sealing; it will be sealed.

PROF LIPMAN: All right.

MR COUTTS: And that's - - -

MR NIELSEN: That's a requirement from the council.

PROF LIPMAN: All right.

MR BOUTRY: And that's been condition, Madard speaking - - -

PROF LIPMAN: Yes.

MR BOUTRY: - - - it has been conditioned through the draft conditions, and I think – and the other important point to make about Whitefields Road is that it is the primary access route for the over-dimensionals, and it always has been throughout the approval process, and through this modification approval, what we've sought is actually to optimise that design and reduce the footprint, so we're not actually changing the purpose of that road.

MR NIELSEN: Yes. So Tom Nielsen speaking again. The – we haven't proposed, as part of the MOD, to change anything about this road other than to reduce our impacts on it. The extra 10 metre long blade or the 20 metre long blade, depending on what blade was considered on the access route originally, has made – because it's a relatively straight road, makes very little impact in difference, so we've just been focused on reducing our impacts in this area.

It was raised in a few submissions, including by council, could we look at other access points, so Coppabella Road, from the west, was looked at, both from you're coming from the north or you're coming from the south. We go from 1.1 kilometres of council road up to 10 to 12 kilometres of council road. If we go those ways, we go closer to nearby residents' houses, so if we're coming from the south, we will go 80 metres from a house. If we're coming from the north, we have to run everything through the town of Binalong, which would take some serious upgrades in the town of Binalong as well and run past – through a town, really, so there was also – whichever way you come from, you would have to do some pretty dramatic creek crossing upgrades and so it really seemed to us, because we weren't trying to change anything through the – from the original approval on this and we didn't see that there was a benefit in trying to go in a different route, that we would just open up a new set of problems.

Other considerations – so, heritage: so in widening our footprint, we had to get more heritage sites. We had to get everything – so both from an ecology standpoint and from a heritage standpoint, the new footprint was fully – has been fully surveyed, so – and then, from that, we've had to make sure we've changed that table at the back of the conditions that capture all the heritage sites to ensure that we're making sure we're doing a full survey of them again, before we start doing a proper salvage process.

The grid connection. So TransGrid are upgrading the 99M back to Yass to allow us to connect. They've done a review of environmental factors process to upgrade roughly 25 per cent of the poles in that area. They're now proposing to upgrade 100 per cent of the poles back to Yass and do a new review of environmental factors just due to a lot of other generation, namely solar farms, hitting the grid and then not being able to offer us the full capacity that they could before, so they're now going through that process.

On telecommunications, we have a small telecom site that's owned by council on one of the hills. We're organising with council to either relocate that or put those devices onto one of our permanent met masts. For noise, obviously, we've done full revised noise assessments. We're also talking – we have also been requesting the Department of Planning if we can do updated background noise monitoring before we start. We didn't assess any background noise.

Typically, background noise – like, typically, the noise limit is the greater of 35 or background plus five. We just did 35, because the old background data was very old and unreliable. It was against masts – it was measured at mast locations that are no longer there. So we essentially didn't consider background noise. We did our assessment against 35 dB flat, and we are asking just to clean up our operations testing, if we can do updated background noise testing, so we're testing like-for-like.

MR TITCHEN: So Tom – John Titchen here.

MR NIELSEN: Yes.

MR TITCHEN: That's a conservative approach?

MR NIELSEN: A very conservative approach, yes. So we're not increasing our limit through more – higher background noise, we're just considering a 35 in this process. Construction water supply. So Coppabella Wind Farm now has water access licences for the project. We are seeking allocations that our contractors will be able to purchase water from in the area. We've also had potable water offered to us by the Yass Valley Council and a site over in Jugiong nearby.

Not so much part of the MOD, but just another note – and part of the reason why this process has taken a bit longer than we would have liked to – by the project to start with was there was concerns that we were affecting the secondary coverage of the Mount Bobbara Radar Station, which is just to the north of the site. We went through a very long process with Air Services Australia and they have since installed some new radar down, called ADSB radar facilities down in Victoria that now covers that issue off for us. They've now accepted our aviation impact management plan under the Department of Planning conditions and we are able to go forward on that basis.

So community engagement. We really ramped up community engagement as we turned up on the site. We have now a long history of really making sure we're at the forefront of community engagement and really making sure that the people are (1) consulted well, but (2) are as informed and can have as much input on the project as possible. We now have an information centre open in Binalong, which is the local town to the north-east of the site. We – Sonny and I, myself, had over 50 face-to-face meetings with near neighbours as soon as we got on to site, with a large focus with neighbours within five kilometres of the site.

We've talked about a neighbour engagement strategy; that has gone to everyone with five kilometres of the site has been offered a neighbour agreement, or will be offered a neighbour agreement. We haven't got one to them yet. And we've been very active in our involvement in community events and offering sponsorships over the last year and a-half. We've also had our community consultative committee meetings, which we've had three meetings in the past year. We also have our website and our contact number and email.

So this is an overview of our neighbour agreements to date. We've had a very open approach. Our neighbour agreements are based – and payments are based on proximity to site with obviously the closer, and then going out, and with the amount of payments, they're very open. They can be cancelled at any time. We didn't force people to sign away noise or visual, their rights under that, unless we really needed them to under the compliance process. So everyone still has their full rights.

So we've really – at the moment, we've got 30 signed, which includes – so there will be 26 green dots there. There's four where we've offered the people, who are adjoining land owners, who don't have houses there, because we know that they're going to be affected also when they're working on their farms, so we wanted to make sure that they were compensated as well and involved in the process. The white dots are the intend to offer. So we've either got drafted or we're still trying to get in touch with those people. The five kilometre line goes straight through Binalong. Instead of offering agreements to half the town, we've just offered to the whole town.

So community benefit sharing. So we respond to 28 initiatives or community groups to date with a cumulative total of 80,000 approximately. We've got our community enhancement fund, which is 25,000 per installed turbine, which will come into effect once the project is operational. As part of this process – so there was a few submissions, including from council, asking – saying that if we're increasing the megawatt of the turbines, that we should increase the payments under that system as well.

This site is slightly unique in that – I could go back to the map – but the project has 10 turbines in the Yass Valley Council area. It has the rest of the turbines in the Hilltops Council area. There were – I think most of the nearby – the two nearby towns, in Binalong and Bookham, are in the Yass Valley Council area. The payments under the BPA system are to each council area, so the Yass Valley Council would get smaller payments. If we just increased our per-megawatt amounts, that wouldn't fix that problem, so we've set aside an additional 100,000 per year to be managed by a separate fund just to make sure we can pick up that shortfall and make sure that the local towns which are most affected are getting a decent amount from that. How that will be managed is still to be set up but we've gone through this process previously on our White Rock project.

PROF LIPMAN: Why did you decide to do it in a different way instead of doing it under the - - -

MR NIELSEN: Just because, again, it would mean the Yass Valley Council would get a lot less for that area – so those people – because they've just got 10 turbines whereas Hilltops has more. So – and there is obviously a lot of concern in the area about – from community about where the councils will spend the money and so as feedback from that process we decided to make sure that we, I guess, let a community group – or it could be council or we've yet to decide how that will be administered but let that extra 100,000 – make sure that we're covering off a different subset, if that makes sense.

So local investment and jobs so the local business participation program is under way. The project is listed on the ICN Gateway so the Industry Capability Network gateway. We've had a lot of interest registered through that. We are getting a lot of people coming into the shop in Binalong to talk to us about how they can be involved. We're either getting their numbers and getting back to them or we trying to get them registered on the ICN Gateway so that when the contractors come up they can go to that gateway. We're planning a local industry briefing where we can – once we have – through our contractor for the project, get out to the local communities and start talking about how they can most benefit.

The project is expected to provide up to 200 jobs in the peak construction periods during construction and with obviously a secondary local industry benefit through accommodation, support services, consumables – anyone who provides a service that is going to help with the additional people in the area. Going forward, so approximately 10 permanent staff through the operations period which will be for the 25 year life of the project. For the modification we received – there was 105 total submissions from 98 different submitters, including the 10 from government agencies, five from special interest groups and 84 from the public.

It's worth noting that 31 out of – sorry, 81 total objections out of 31 they were a template submission so in the response to submissions you will see that I've responded to them as one submission. And when we – just listing them, the objections as they came in, by postcode, you can see there's a fair spread across the countryside especially across New South Wales. Our focus in the RTS was largely on the groups most affected and that includes a lot multiple submissions from the same households, especially in close to the project.

Our neighbour agreements didn't stop anyone from making a submission for or against the project. We let people do what they wanted to do. We just wanted to make sure people were consulted throughout. So the outcome of the response to submissions was the removal of four turbines, the commitment to the additional $100,000 a year commitment to doing more surveying before we start the build to confirm with OEH to their satisfaction that we have the site appropriately mapped. The limits – instead of being one limit for 179.8 hectares it's broken into subsections. That is so obviously we don't move out of a low impact area into a high impact area, we make sure we are restricted on that high impact area. The Department of Planning put that forward.

The offset requirement has included additional species and the Regent Honeyeater, we're still working through with OEH as to whether that's required as an offset on site. And we have committed to sealing Whitefields Road which is conditioned. And as a project first – or was a condition first there's a requirement for an aviation detection hazard lighting system if aviation lighting is required. Our risk assessment has, at the moment, is that it's not required but if it is to be required then we will have to install an aviation detection hazard lighting system which is a lighting system which turns on when it senses a plane coming rather than one that is steady state, always on. And throughout this process, so there has been a number of back and forward on the conditions of consent. We feel it's in a spot that is strengthened now than the original.

MR PILTON: Excuse me, if you did have to have a - - -

MR NIELSEN: Yes.

MR PILTON: - - - warning light system, would it be on every turbine or just on - - -

MR NIELSEN: No. No, so there's a – we've done an aviation lighting assessment. It's based on – there's a set of systems by which you do the lighting on. It's not on every turbine.

MR PILTON: Okay. Good.

MR NIELSEN: And so – yes. I couldn't tell you off the top of my head how many is recommended.

PROF LIPMAN: And obstacle lighting was only occasioned by the increase in height. Is that correct?

MR NIELSEN: So CASA have generally always required lighting when it's above 150 metres.

PROF LIPMAN: Yes.

MR NIELSEN: So by going to 171 CASAs recommendation – sorry, not required – they never require lighting. They recommendation lighting. It's something that is of major focus for us because of history in the area. There was a project in the area, Gullen Range Wind Farm, which did have lighting and then had a lot of community concern about that lighting and it was taken down afterwards. So that's still fresh for people out there. We're working very hard to make sure it's not required but if it is then we will have to install this radar system to make sure that it only turns on when planes are in the area.

So conclusions, we have – Goldwind has sought – since taking over the project, we have really, really consulted in the area to try and make sure we've – everyone in the area knows about the wind farm as much as possible, and tried to engage with the

surrounding residents as much as possible. We've gone to great lengths to address stakeholder concerns through the RTS process. And we believe now that the project is an appropriate balance of a viable development for the local wind resource and also while minimising the potential impacts of the project as much as possible.

There's still a substantial biodiversity offset required but, as stated, the way it's currently conditioned we can reduce that just by – it incentivises, the way it's written, to reduce our design footprint just before we start building. And the project supports the Commonwealth Renewable Energy Target and the New South Wales Climate Change Policy Framework. Our view is that we agree with the current conditions of consent put forward by the Department of Planning and the recommendation that the project is approved. Questions. How are we going on time?

MR COUTTS: Five to. Well done. One other question I have, just on the RSA, obviously there is a wider sweep with larger blades, the assessment of that is minimal impact - - -

MR NIELSEN: Yes.

MR COUTTS: - - - other than on the poor old Wedge-tailed eagle Little eagle, I think.

MR NIELSEN: Yes. So the raptors that are up high, otherwise – so typically what we've done is actually increased the – so there was an envelope that was allowable. We've actually increased the lower tip height – swept height from that increase. So the majority of birds in this area were treetop birds. So you're actually increasing – decreasing the impact on those birds but, yes, when you get into those higher sort of areas then that's when the raptors are the main concern.

MR COUTTS: Is there any assessment on the level of impact?

MR NIELSEN: Yes. That should be in the assessment. So it's based on a percentage change. Yes.

MR COUTTS: I mean, we have – I'm not going to put on the spot on this but you might want to have a look at it - - -

MR NIELSEN: Yes.

MR COUTTS: - - - the RSA figures which come out with a 15 per cent variation, when we do the numbers we come out with a 35/36 per cent - - -

MR NIELSEN: Yes. So it will be – it's – what we've done is – and it's tricky because the original approval – so for the visual impact assessment they have used 50 metres blades. For the biodiversity they used a range of 50 to 60 metre blades.

So when we looked at 70 metre blades the consultant was addressing the difference between the 60 and the 70.

MR COUTTS: Okay. So - - -

MR NIELSEN: Whereas you're looking at the difference between the 50 and the 70.

MR COUTTS: Okay. So is what why he's arrived at 15 per cent - - -

MR NIELSEN: Yeah. Yeah.

MR COUTTS: - - - as against the 39 per cent?

MR NIELSEN: Yeah. So that's looking back at the original biodiversity assessment and what that was based on.

MR COUTTS: Okay. Okay.

MR NIELSEN: Yeah.

PROF LIPMAN: But if you're looking at the rotor diameter of 121, the original one, if that's correct, and you take those figures at 60.5 squared times 3.14 times eleven and a half thousand, and you take the new figures, 142 metres ..... seventy-one squared times 3.14, you have about eleven – 15,600, which represents 34 per cent increase .....

MR COUTTS: We're just – just for the purposes of - - -

MR NIELSEN: 34 per cent increase. Yeah.

PROF LIPMAN: Just .....

MR COUTTS: We're looking at the department's report on page 32.

PROF LIPMAN: Yes.

MR COUTTS: ..... the bird and bat strike .....

PROF LIPMAN: .....

MR NIELSEN: Yes. So I think the difference and - - -

PROF LIPMAN: Yeah.

MR NIELSEN: Again, I'm talking off the cuff here, but the way, from my memory, the assessment works – it was by area of turbine. So 20 to 40 metres, 40 to 60 metres

and up. So, when the hub height – it depends what hub height you base that as well, because your swept area will change. So if you're assessing on the 50 metre, you're doing the same hub height we were at. If you're assessing on the 60 metre, you're actually at a lower hub height, to fit under the 150. So although the circles, if you overlay them perfectly, there's a 34 per cent increase, if you're decreasing the 60-metre one - - -

MR PILTON: The height. Yeah.

MR NIELSEN: - - - you're changing the height. So you're not overlaying them exactly, and so that's why the difference. We can – I can put this into a follow-up and give a response .....

MR COUTTS: If you wouldn't mind .....

PROF LIPMAN: Yes .....

MR PILTON: A diagram would be helpful .....

MR NIELSEN: Yeah. Diagram .....

PROF LIPMAN: Because some of these figures are a bit confusing.

MR NIELSEN: Yeah. Yeah. It's just talking in percentages. Yeah.

PROF LIPMAN: Yes.

MR NIELSEN: I'm happy to supply that.

PROF LIPMAN: Okay.

MR NIELSEN: It's the combination of the change in hub height and the different .....

MR COUTTS: Yeah ..... be helpful.

PROF LIPMAN: You had on your overhead – I thought it was the hub heights were the same. The hub heights – is that correct, or are they slightly higher on - - -

MR NIELSEN: So a hub height wasn't conditioned, and it's just a different – so during the visual impact assessment – the visual impact – they just had a tip height restriction of 150.

PROF LIPMAN: Right.

MR NIELSEN: Now, during – the original visual impact assessment assumed a 100-metre hub height. We're assuming a 100-metre hub height, but they were assuming 100 metre with 50 blades. We're assuming 100 metre with 70 blades.

PROF LIPMAN: Right.

MR NIELSEN: So – 70-metre blades. So it just depends. In some of the original assessments, if you were assuming a 60-metre blade, then you've got to bring that hub height down to 90 to fit that in under the original 150. Yeah.

PROF LIPMAN: Be useful to get some accurate statistics because these figures all seem like – I mean, you take the minimum height of the RSA from 29 to 30 metres, whereas it seems to me 29 on both. If you take 150 minus 121 and 171 minus 142.

MR NIELSEN: Yeah. That's assuming the maximum - - -

PROF LIPMAN: Yeah.

MR NIELSEN: Yeah.

PROF LIPMAN: Yeah.

MR NIELSEN: So I'll take that away, and I'll just give some diagrams on what it was all based on.

PROF LIPMAN: Might be very useful because it's very ..... up in the .....

MR NIELSEN: Yeah. Yeah. Yeah.

MR PILTON: It does say in the bird section of the EIS that the new one is higher.

MR COUTTS: Higher.

MR PILTON: The bottom of the - - -

MR COUTTS: .....

PROF LIPMAN: Yes.

MR NIELSEN: Yeah.

PROF LIPMAN: Yes.

MR PILTON: ..... area is higher than it was before, whereas I think it's the same.

PROF LIPMAN: It's the same. Exactly. Yes. 29, both of them.

MR NIELSEN: All right. Well - - -

MR PILTON: And their report says that there's, you know, less risk for birds.

MR NIELSEN: Okay.

MR PILTON: I don't think there's any difference.

PROF LIPMAN: Yes.

MR NIELSEN: Yeah. It – the issue is based on what was approved. So the approved – what was assessed and approved was that they actually had a lower tip height allowance, but there was no – what we're doing is we're proposing an actual turbine, whereas they were proposing an envelope. So their envelope was actually bigger than the turbine, and it just depended where you put the hub height. So their allowance was for a lower tip height swept area. So they had a window to put their turbine in. So the assessment was under that window. So you could change the hub height. What we're proposing is one hub height, one layer. So that's probably part of the confusion .....

MR BOUTRY: We'll come back with .....

MR NIELSEN: Yeah.

PROF LIPMAN: ..... yes. Thank you.

MR BOUTRY: Yeah.

MR COUTTS: Yeah. I think – yeah. I don't think we'll ..... waste too much time going over that.

MR NIELSEN: Yeah.

MR COUTTS: We'll just get - - -

PROF LIPMAN: Yes.

MR COUTTS: - - - totally confused .....

PROF LIPMAN: .....

MR NIELSEN: Two diagrams, we can show that.

MR COUTTS: Yep. That would be good.

PROF LIPMAN: Yeah. That'd be good.

MR COUTTS: Thank you.

PROF LIPMAN: Thank you.

MR BEMBRICK: I think it would be – I think it's reasonable to say that, in terms of ..... 20 years of developing wind farms in New South Wales, that the actual impact is probably relatively low, and there's lots of surveys that - - -

MR COUTTS: On birds, we're talking about?

MR BEMBRICK: Yeah.

MR COUTTS: Yeah.

MR BEMBRICK: And, as you mentioned, the poor old wedge-tailed eagle does become one of the victims of wind farms, and we do have ways to mitigate that, but, overall, I think the impact is generally low, and I don't necessarily think that the increased dimensions and the percentages are necessarily going to translate to increased impacts ..... the same proportion.

MR COUTTS: Yeah. Yeah. Look, I think our concern, really, here was, when we were looking through the reports, and we're looking at some of the figures, the figures aren't making sense to us - - -

MR NIELSEN: Yeah.

MR COUTTS: - - - and, when that happens, you start to think, well, are there other figures here that aren't right either.

MR NIELSEN: Yes. Yeah.

MR COUTTS: So if we get some clarity around that, that just gives us - - -

MR NIELSEN: Yeah.

MR COUTTS: - - - a level of confidence of what else we're looking at.

MR NIELSEN: Yeah. In short, it's because they were – Epuron, who were putting the project forward, didn't know what turbine ..... was going to go on there.

MR COUTTS: Yeah.

MR NIELSEN: So, at different times, they assessed different turbine sizes. So they were going for an envelope. So it was assessed against an envelope - - -

MR COUTTS: Yeah.

MR NIELSEN: - - - with a lower tip height and higher tip height, with movement allowed in between, whereas we're looking at one turbine. So then that's probably the issue.

MR COUTTS: Yep. Okay. Do we have any more questions?

PROF LIPMAN: I have a question about – in relation to visual impact. I notice that house C04 is a non-associated residence - - -

MR NIELSEN: Yes.

PROF LIPMAN: - - - at this stage. That house is outside the guidelines. The guidelines were – using turbines throughout – was a two-kilometre boundary for 150, but there's a 2.3 for 171 over - - -

MR NIELSEN: Yeah.

PROF LIPMAN: So, therefore, that house, being under two hundred – 2.3 - - -

MR NIELSEN: Yeah.

PROF LIPMAN: - - - kilometres away, is actually outside the guidelines.

MR NIELSEN: So yeah. I agree. I think it's – I think it – we've got it at 2284 or 86.

PROF LIPMAN: 83. Yes.

MR NIELSEN: 83. Yeah. So it's – that's true. We've been in negotiations with the resident of C04 for some time now for them to come on board, but the guidelines are guidelines, and they just make you – there's a – the purpose of those guidelines is to increase focus on areas where you go outside those guidelines. They're not a hard and fast rule. So yeah. We have been working very hard with that landowner. They were an ..... landowner that pulled out of the project, but we – through the process, we got a letter of support from them earlier on, which Department of Planning has, I believe, and we can pass that on, but, yeah, it's – the hills around them – and we'll see when we – I understand that you want to look at that on the site visit. The hills around their property mask a lot of the wind turbines, because they don't have turbines on them, because they were – it was –you'll notice the project does a bit of a C-bend around the central hills. So they're seeing turbines to this side and this side but not the turbines directly in front of them. So yeah.

PROF LIPMAN: But can I just get back to the guideline.

MR NIELSEN: Yes.

PROF LIPMAN: The – I know guidelines are guidelines, but the guidelines do say that, if there's an instance where it doesn't meet this requirement, it'll only – the turbines will only be approvable within that distance if there's an appropriate assessment and justification presented to them in relation to it. I assume you've done one of those in relation to that particular property.

MR NIELSEN: It was just included under the visual impact assessment. So the visual impact assessment concluded that there was no great increase between the – increase in impact between – because the original was assessed at the same hub height. So it was just going 20 metres higher on the blades. So the assessment of the visual impact assessment concluded that there was no substantial change between the visual impacts on those locations.

PROF LIPMAN: So there was no particular justification in relation to the distance or anything like that - - -

MR NIELSEN: Not for C04 per se.

PROF LIPMAN: - - - for having the turbine so close?

MR NIELSEN: Not for C04.

PROF LIPMAN: Yeah.

MR COUTTS: So you're basing your position on the basis that there has been no change from the original approval - - -

MR NIELSEN: Yeah.

MR COUTTS: - - - in terms of impacts.

MR NIELSEN: Yeah.

MR COUTTS: Yeah. Okay.

PROF LIPMAN: Okay.

MR TITCHEN: And what was the letter?

MR NIELSEN: Letter of support.

MR TITCHEN: What did that say?

MR NIELSEN: So it was essentially a letter of support saying they didn't want any – I'll have to check the exact wording. It was last year, but, essentially, it just – supporting that we were in a negotiation and that they wanted to continue to be negotiating and didn't want the non-association to be adversely considered.

MR COUTTS: So are they still – have they changed their position with you at the moment? Are they - - -

MR NIELSEN: We are – we just had our 14th meeting on Friday, where he wants a couple more clauses put in. So we're working through it.

MR COUTTS: So he's not standing in your way. He's – he or she is still .....

MR NIELSEN: Yeah. Yeah. Yeah. He - - -

MR TITCHEN: Could you meet them and ask?

MR NIELSEN: Ian Shaw doesn't – he doesn't – that's not a – no one lives in that house. No one has lived in that house for eight or nine or 10 years - - -

MR COUTTS: Right.

MR NIELSEN: - - - but it is a residence, and we're treating it as a residence, but he farms that property, but he lives off in ..... so – but, yeah, we're still in negotiations, it's just a drawn-out negotiations.

MR COUTTS: All right.

PROF LIPMAN: Excuse me, could I just ask you another question.

MR NIELSEN: Sure.

PROF LIPMAN: Although, as I say, as far as the visual thing is concerned there's an over-compliance with the guidelines but there's also a difficulty with the noise as well, isn't there, because it exceeds the 35 decibel - - -

MR NIELSEN: Yes. So that's the only - - -

PROF LIPMAN: - - - potential to when the wind is blowing from the north.

MR NIELSEN: Yes. So that was the only location that did exceed the 35 with our turbines. So what we put forward was if we don't get a neighbour agreement – so obviously our first step was get the neighbour agreement. If we don't get the neighbour agreement we have to curtail five turbines that are closest. We have to curtail five turbines when there's a northerly. If I showed you the energy rose, it's very rarely a northerly. So from a financial point of view it's not too much of a constraint on us to operate the wind farm and just essentially turn off four turbines whenever there's a northerly.

PROF LIPMAN: How likely is that to happen and how long would that take? There would be somebody onsite to monitor that.

MR NIELSEN: It's an automated process.

PROF LIPMAN: Okay.

MR NIELSEN: So we're doing this in – in one of our other projects at the moment we're actually supplying a regular report to the department to show them so that they can see that the curtailing is working so it's an auditable process. It's not uncommon in the industry.

PROF LIPMAN: Okay.

MR COUTTS: And that gets you within those noise limits.

MR NIELSEN: Yes. It just drops it down. And that's not considering any background noise either. That's just the 35 flat.

MR COUTTS: Okay.

PROF LIPMAN: I've just got one other question.

MR NIELSEN: Yes, go for it.

PROF LIPMAN: Yes. When the original proposal was put forward there were three sections. There was a total of about 286 hectares proposed. That was rejected except for this – well, it was totally rejected initially and then you had the approval for this particular sector. Now we're looking at close to 180 which is only 80 less.

MR NIELSEN: Yes.

PROF LIPMAN: And the other was a concern of clearing of vegetation .....

MR NIELSEN: Well, I would probably say that the large concern for the removal of Marilba was largely due to community in that area. There were some concerns regarding – and I think that was the statement put out when they approved it, was that they had removed Marilba due to visual impacts on the neighbours in that area. So I wouldn't say that the hectares would be the main concern but I would have to go and check the old - - -

MR TITCHEN: There was also an intended connection to the 330 kV line that the land corridor hadn't been secured and so the project didn't sort of connect together - - -

PROF LIPMAN: Yes.

MR TITCHEN: - - - as intended. So it was a bit fragmented.

PROF LIPMAN: So it wasn't only that.

MR NIELSEN: Yes.

MR TITCHEN: There were a few factors and we were – we felt that the Coppabella part of the project was the part of the project that was justified. But we've just got to be careful when we commit to proceeding with a project that it's able to proceed within the conditions. And, you know, our experience is we've had to go back in one case and get a MOD for additional clearance because we knew it was getting very tight and the practicalities of construction were being tested. And we did that and it freed it up to proceed. But we just want to be realistic about what the actual construction requires. And we will be limiting the impacts as far as possible, that has a consequence on offsets. And the more work you do the more it costs so there's a natural incentive to do it in a more refined manner.

PROF LIPMAN: Thank you.

MR TITCHEN: So that's our intention but we just need the flexibility to able to succeed.

MR COUTTS: Adrian?

MR PILTON: Could I just ask a question about when you're constructing all the roads and the cuts and fills and so on, how do you propose to store all those and deal with erosion control and all that? Will there be someone on site that's sort of monitoring that or - - -

MR BOUTRY: It's a part of the requirements – Medard speaking. Part of the requirements under the approval are preparing a number of management plans which come in – many of them come in under the environmental management strategy. Part of that will be preparing a soil and water management plan and as part of the modified conditions there's some specific requirements to the standards that are required during construction. So the blue book is – in New South Wales is the typical standard as you likely know. Through that there's a – the key point is to progressively rehabilitate as the construction works are progressing. So the key is to basically – establishing as much ground cover as possible so during construction temporarily it's often spraying a hydro spray or a mulch to hold down the sediment to prevent it from when it's raining, from washing away.

You have sed fencing around the base of some of those batters and then basically as soon as you've reached the final form you want to be establishing the ground cover on those slopes as soon as possible. And the top soil is typically stripped away at the start of clearing and stored so that it can be reused during the rehabilitation. It's really important. It has the got the micro-organisms, the existing seed bed in there and you want to maximise the use of that.

You can also then – you know, a big part of it as well is making sure the drainage, through the design, is appropriately designed – engineered so that you are carefully controlling the water and flows having ruffled batters to bring the water down from

the batters down to the natural landscape. There's a sweep of different approaches that need to happen to avoid ongoing erosion and sediment issues. It's something we want to get right from the start because it's very expensive to keep going back, reworking these areas and it's – it's just something that needs to be done right.

MR BEMBRICK: ..... there's an updated condition on progressive rehabilitation. Also in the licence – the environmental protection licence that will be required for this site, there will be things about pollution including sediment transfer and all that sort of thing. So there are a number of mechanisms that are imposed on you but you need to get these things right for the stability of infrastructure and roads and everything so it's, I guess, in everyone's interest, the proponent and the regulator, to make sure all this is carried through.

MR PILTON: What's the intention at the end of the 25 years? Is it to take everything away or just rebuild them or update them or whatever?

MR NIELSEN: So Tom Nielsen, we have a – this was actually more so than anywhere I've worked, people were very concerned about decommissioning so under our approval we have to decommission the project and we have to re-establish the vegetation. So there was a concern that this project didn't have a decommissioning fund or plan required around it so we've actually committed the project to a decommissioning plan and fund that wasn't proposed by the department, it was proposed by us due to community concerns. But that will be that within five years of operation we need to set up a decommissioning fund that looks at essentially how much the scrap steel is going to be worth when you take it all down, compared to how it's going to cost to do that work and then make sure you've got the difference allocated.

And then every five years you re-look at that to make sure steel prices haven't changed too much. Or if they have that you've got appropriate allocation of costs to do the decommissioning. So that's the requirement. If there are clauses within the conditions to allow landowners to hold on to some – an example being the roads across the property, if the secretary agrees. So if the landowner wanted to, say, well, I like this road going around my property, can I keep it, we could go back and on behalf of the landowner ask for that to stay. Otherwise we have to re-establish the whole site back to the hills. But if someone wanted to come along and, yes, repower they say and put more turbines up, bigger turbines or different turbines, then that would be a brand new development approval process, independent of this.

MR BEMBRICK: Just to follow that up, and again, coming back to the conditions, Jeff, condition 45 has the rehabilitation requirements on condition, say, for various different aspects of the project.

MR COUTTS: All done? Okay. Thank you.

PROF LIPMAN: Thank you.

MR COUTTS: All right. Well, thank you for a very good presentation. And - - -

MR NIELSEN: A pleasure.

MR COUTTS:

MR TITCHEN: Thank you. And best wishes with your process.

PROF LIPMAN: Thank you.

MR COUTTS: As you know, we're going up on 12 and 13 November for the site visit and the public meeting.

MR NIELSEN: Jeff has passed on some info about what you want to see on that site visit so we're going to try and get you up and around the site.

MR COUTTS: That would be good.

MR NIELSEN: For sure. Due to the sheer amount of gates and non-established roads it's slow going on the site. So we will just have to make sure that we plan the time to give you the full three hours and back to Bookham.

MR COUTTS: Yes.

MR NIELSEN: But if there is any other areas through this process that you want to see or anyone you want to talk to, please just let us know and we will make sure that we schedule that in.

MR COUTTS: Good. Thank you.

MR BEMBRICK: We can talk generally about it now but perhaps we need to have a discussion before that time, perhaps after this meeting about the route. We did discuss some initial ones but with three hours it's quite constrained in terms of the – a very steep and - - -

MR NIELSEN: It will be an hour on the public roads and then two hours up on the site. So we've just got to get that two hours in.

MR BEMBRICK: So if we can discuss that afterwards perhaps or did you want to run through it now?

MR J. VAN DEN BRANDE: Go through it now and .....

MR COUTTS: Sorry?

MR VAN DEN BRANDE: If we go through it now .....

MR COUTTS: ..... - - -

MR NIELSEN: I didn't bring any printouts of where the route is.

MR D. KOPPERS: ..... I can just deal with that .....

MR NIELSEN: Yes.

MR COUTTS: Okay. Well, look, thanks, guys. Appreciate you coming in, appreciate your time and I think it was a pretty good presentation. It has given us a good feel for the project and we look forward to seeing you on site.

MR NIELSEN: Thanks.

**RECORDING CONCLUDED** **[10.20 am]**