

MR P. DUNCAN: Good afternoon and welcome. Before we begin, I'd like to acknowledge the traditional custodians of the land on which we meet. I'd also like to pay my respects to their elders, past and present, and to the elders from other communities who may be here today. Welcome to the meeting today on the proposal
5 seeking approval for the modification to the Eraring Power Station Ash Dam to augment the dam using an alternative ash placement strategy and landform design to increase the storage capacity in the short to medium term. My name's Peter Duncan. I am the chair of the IPC panel. Joining me is my fellow commissioner Professor Alice Clark. Callum Firth, Lisa Honan and Kim Strathan are attending from the
10 Commission 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. The meeting is one part of the
15 Commission's decision-making process. It is taking place at a preliminary stage of the process and will form one of several sources of information upon which the Commission will base its decision. It's important for the commissioners to ask questions of attendees and to clarify issues whenever we consider it appropriate. If you're asked a question and are not in a position to answer, please feel free to take
20 the question on notice and provide any additional information in writing, which we will then also put on our website.

I request that, uh, all members here today introduce themselves before speaking for the first time and for all members to ensure that we all speak one at a time, so that,
25 um, it's – we get the accuracy of the transcript. Now begin. Thank you. So over to Origin to – to – to give us an overview of the project.

MS L. BARNABY: Thanks very much, Peter. My name's Lauren Barnaby. I'm the environment and community manager for Origin. Um, today we'll just take you
30 through, um, the slide deck that we've, um, prepared today. So we'll take you – uh, give you a brief overview of the asset, uh, provide some project context, um, around the need for the project, um, take you through, obviously, the modification, uh, 1 and also, um, the attributes of that, discuss the stakeholder engagement to date and also step through the key issues, um, that have been raised and that we've addressed. Uh,
35 also, um, my colleagues as well will be, um, uh, uh, speaking to some other slides as well.

MR DUNCAN: Okay.

40 MS BARNABY: Okay. So, um, as you – as you're aware, um, Eraring Power Station's located, um, on Lake Macquarie, approximately 40 kilometres south of Newcastle. Um, the diagram there is showing the land that's subject to the Eraring Power Station, in red. Um, the operations actually commenced in, um, 1982. And it was owned and operated by the State government. Uh, Origin actually purchased the
45 – the power station, uh, and took ownership in August 2013 and we've been operating the station since that time. Uh, it's Australia's largest power station and it

provides up to 25 per cent of New South Wales, um, power supply. Um, and it consists of four 720 megawatt turbines, uh, with a total generating capacity of 2880 megawatts. Um, so it's therefore, um, critical energy supply infrastructure for New South Wales and also, um, for Australia more regionally.

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So the current, uh, project context in relation to, um, the energy, um, industry at the moment, um, as you're probably aware, Australia's, uh, energy context is in a constant state of change and is very challenging at this time. Um, we've recently, uh, seen closures such as Munmorah in New South Wales and also announcements around the – the planned closure of Wallerawang, um, also Liddell Power Stations. Um, and also, uh, coupled with unplanned outages, affects supply. Um, obviously, uh, Victoria and South Australia have also had similar situations. So, um, therefore the increase in demand for electricity, um, has obviously significantly increased during those peak periods, which leads, obviously, to a risk of power shortages and blackouts, such as those seen, uh, in South Australia. Um, therefore, uh, as a result re – we've seen record generation levels at Eraring to meet that additional demand, um, particularly through the summer peaks. Um, and also higher volumes, therefore, of ash to be stored in the dam, so increasing, um, the ash output as well.

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So therefore we've, um, need to, uh, revise our ash de – deposition strategy, um, as well the – as a way to increase our storage. Um, we, uh, at Origin we do have a strategic focus on recycling – um, as part of the existing, um, approval that we're seeking to modify, there is a condition that we actually, um, have a goal of recycling to 80 per cent. Um, we do, um, try to achieve that. Um, however, um, historical levels, we've only, uh, reached 30 to 40 per cent of recycling. Um, we'll touch a little bit later on that, um, in a bit more detail as to some of the challenges around recycling as well.

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So the actual application – the modification, um, to the, um, approval – so, uh, as you know, the ash dam is a critical part of the overall process, um, of, uh, power generation here at Eraring. Um, the a – the components, um, which are depicted in the diagram as well, um, of the actual project is the construction of a western embankment to, um, what we call a relative level of, uh, RO 140. Um, uh, the amended deposition strategy, as we mentioned, uh, will also include mine void grouting, uh, upgrade to the stormwater management system and upgrade to modification – and modifications to ancillary infrastructure such as the supply pipelines and roads, stormwater infrastructure, etcetera.

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So just in summary, um, the increase in storage capacity will be an addition of 5 million cubic metres, which increases the footprint by an overall four per cent. Um, the – the dam is around 250 hectares, um, at this point. Um, the additional capacity is required by 2022. Um, and that area or the expansion, um, area will extend the life of the ash to late 2026. Obviously dependent on the generation demand and the market demand for recycling as well. Um, just a quick overview of engagement to date. So the environmental assessment was on submission, um, in September 2018, so – for the two week period. Um, received a total of 32 submissions there and just a breakdown of those submissions in that table. We won't – won't go into that in

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detail. Um, so next I'll hand over to my colleague Fernanda to – to talk through, um, some of the operating and the existing management systems of the dam.

5 MS F. MALULY KEMEID: Thank you, Lauren. I'm Fernanda Maluly Kemeid.
I'm the ash strategy and management lead for Origin. Uh, I'm talking about seepage
management system. Uh, so the ash – the southern embankment was designed to
collect – collect and convey seepage in a controlled way. So we have, um – we
collect seepage through an extensive drainage system. But you can see it's
10 highlighted on – highlighted in pink in that, um – in that diagram. I don't know if we
have a light - - -

MS BARNABY: Yes.

15 MS MALULY KEMEID: Which one is the pointer?

UNIDENTIFIED FEMALE: Um - - -

20 MS MALULY KEMEID: here. So the seepage goes to a set of weirs here and
here, and also down to another set of weirs in this channel. All the seepage is
collected by – in a seepage pond. And then it's pumped back into the ash dam – into
the decant – uh, the decant pond that Laura mentioned – mentioned earlier. Um, so
the seepage at the ash dam has been reduced since we changed our – uh, the a – the
way that we convey ash – dash – dam – we went from, um, the – through the dense
25 phase. So there is less water in the ash dam and, uh – and we can see that the
seepage has been reduced since 2018. Next water.

30 MR M. DAVIES: Oh, yeah. I'm Matt Davies. I'm an environmental specialist
with Origin, working on, um, uh, this project and a range of other projects here at the
power station. Um, I guess you – as you'll see in the diagram there, that the project,
um, will be, uh, constructed – the western embankment – over, above, uh, pre-
existing or existing mine voids from, um, the Awaba mine. Um, and that, I guess,
the presence of those underground mine work – workings has the potential to change
the groundwater regime in – in and around the project. Um, well, the groundwater
impacts in the mine void area can be managed by filling up or grouting, um, the mine
35 voids and the mine-induced fractures. And as we mentioned during the site tour,
we'll be preparing a mine void remediation plan that considers the design of the mine
void grouting and also sets performance criteria for monitoring and manage – uh, the
effectiveness, um, of a – and – and management of potential groundwater impacts
going forward.

40 I guess, also, uh, discussed on – on the site visit, we undertake, um, groundwater
monitoring and we do that, uh, in accordance with, um, regulatory requirements. To
date the results of monitoring have indicated that the risk of environmental impacts
to the – to Lake Macquarie and the surrounding community from the operations is –
45 is low. Um, we will develop other – uh, or update and develop new plans as a
requirement of this project, including, um, additional groundwater monitoring. Um,
part of the process – the DPE, as it was at the time, engaged an independent, uh,

consultant to look at, uh, this issue of – of potentially building the project over the top of, um, mine voids. Uh, and they concluded that the project was feasible with appropriate subsidence mitigation and groundwater controls such as grouting or filling the mine voids.

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MS MALULY KEMEID: So the proposed, um, surface water management for the mod 1 consists in a diversion drain that will divert the water that falls in the catchment close to the – on the northwest of the ash dam. This diversion drain will follow the – the access road to the area 140 where we visit today. Uh, the water will be collected in a retarding basin or sediment – I think we call it sediment - - -

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MS BARNABY: Sediment basin.

MS MALULY KEMEID: - - - sediment basin in this project – uh, in a sediment basin. And then will be conveyed west of, uh – of the ash dam into – into the nature. So basically the objective of this is to – is to apply good practice that's trying to remove the – of trying to protect as much as we can, uh, clean water from getting in contact with, uh – with the ash.

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MS G. DOBSON: So, uh, my name's Gemma Dobson. I'm the senior environment business partner based at Eraring Power Station. Um, I'm just going to be talking about biodiversity. Um, so within the environmental assessment, um, Origin undertook the biodiversity development assessment report. Um, and within that, um, it was established that the project would require clearing of approximately 8.95 hectares of native, um, plants. So, uh, there's two plant community types, um, assessed as being good condition there. Um, the majority of that is actually scribbly gum and red bloodwood. Um, only a very small amount is, um, uh, smooth-barked apple. So, um, the land disturbance would mostly be associated with the stormwater, um, management system and also some clearing, um, associated with the mine void, um, grouting or – or treatment.

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Um, so, uh, we'll – we'll obviously try and minimise, um, any clearing for that second – second purpose, but, um, yeah, uh, uh, and then in terms of the offsets for that area, um, we – we would also update the current habitat offset plan. Um, and it's likely at the moment that we'll either, um, offset the, um, project impacts um, land-based offsets or by paying into the biodiversity conservation fund. Um, and in terms of other, um, land management, um, considerations, we'll obviously be updating the site biodiversity and land management plan to, um, ensure the project area's covered in terms of weed management, uh, pest management and, uh, bushfire sorts of other, um - - -

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MR DAVIES: Hi. Yeah. Matt Davies again. I was gonna talk to, um, the consideration of air quality and particularly dust management. So the – I guess the project generally maintains the existing scale of – of the operations. Um, including the – I guess, the operational footprint. Um, there is some potential with the approximate four per cent increase in the surface of the ash dam as a consequence of the project for, uh, additional exposure to – to wind-blown dust. Um, we've got dust

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– extensive dust management measures here on site and we would extend the existing measures we have to the project area. So the things that we do already is we – is, I guess, pro-active use of weather forecasts to guide operational activity, temporary capping and the strategic placement of the ash to maintain as much
5 moisture as possible. Um, the application of crusting agents and – and, I guess, direct water spray through, um, water cannons.

Um, the existing network of dust monitoring, which includes, uh, three to four dust monitors, would be extended over the project area, um, so that we can, uh, quantify
10 dust impacts and including, uh, daily reports. I guess, as the ash dam evolves, the change in, uh, deposition strategy – um, there is a need for us to con – continually, I guess, adapt to and upgrade dust management plans. Um, and we – that also would be applied to this project going forward.

15 MS MALULY KEMEID: Well, the southern embankment’s stability – so as part of Origin’s due diligence, uh, we commissioned Stantec to perform a stability assessment of the southern embankment. And, uh, the results of, uh – of the report, uh, show that we didn’t meet the factor of safety, uh, for a seismic event – a large
20 seismic event, bigger than the Newcastle earthquake in 1989. Um, however, the modification 1 doesn’t have any bearing on, uh – on the stability of the southern embankment, because the distance of the fly ash, the position footprint of mod 1, is 575 metres at its closest point to the southern embankment. Uh, the proposed deposition method – we’re – we’re depositing ash on its, um, natural repose angle, so one to two per cent, so this ash will hardly be – be mobilised.

25 Uh, and we’re not depositing against the southern embankment. And, uh, we’ll continue to operate the existing, uh, decant pond, uh, to the – uh, to the current operational level. So we – we keep the RL of the pond, uh, to the same level. Uh, so Origin is progressing the southern embankment stabilisation works. That includes
30 grout improvement along the foundations of the dam wall, followed by the construction of a buttress. So these works, they will start in the beginning of next year and, uh, they will last around two weeks. Thank you, sir.

35 MR DAVIES: Matt Davies speaking again. So, I guess, ash recycling is, I guess, an important focus for Origin. We’ve got existing agreements in place with various customers to supply ash for recycling purposes. In the last 12 months, in 2018/19, 35 per cent of the ash that was generated was recycled. We do have a target of 80 per cent ash recycling by December 2021 and we report our progress towards this target to the Department of Planning, Industry and Environment on an annual basis as part
40 of our long-term ash management strategy. The – the latest update or the current update includes a framework for accelerating the ash recycling rate towards the target with a range of opportunity – different opportunities with existing and potentially new customers being investigated.

45 I guess, market conditions and regulatory constraint, sort of, remain a challenge to achieving high levels of ash recycling, but I – I guess, an important point relevant to the project is despite the expected acceleration in ash recycling over the next few

years, this project – the augmentation project – is still needed as, in any situation, we'll need, at least, an additional 5 million cubic metres of ash capacity into the future.

5 MS BARNABY: Okay. So Lauren Barnaby speaking again. In relation to rehabilitation, the full end of life learn form, obviously, for the Ash Dam won't be completed until – until the end of the operation, so, obviously, we need that
10 substantial ash storage area until the end of the life. We – where feasibly, we temporarily cap and revegetate areas on the dam for dust management and we may need to go back into those areas, just depending on ash placement strategies as they evolve. We actually cycle our ash placement, so we do need to change areas and frequencies of how we place that ash and that's, obviously, for operational, but also
15 for stability reasons. Therefore, the permanent or the final rehabilitation capping won't be done until the end of the life of the – the dam. So, alternatively, the dam may also continue – we may continue to recycle from the Ash Dam once the station operation is ceased. so they're, certainly, options that Origin will look at as well to continue recycling ash from – from the dam.

I guess, importantly, the long-term ash management strategy – again, that is part of
20 our existing conditions for – under the planning consent. We provide – well, that's the main vehicle, rather, that we update the Department on our ash recycling and that's updated annually and, also, we – we provide updates through that document on rehabilitation as well, so what the – the future rehabilitation strategies are. So, from time to time, as I mentioned, the rehabilitation may change depending on how we are
25 operating the dam and that's the – the document that we capture our operations and rehabilitation intent, which is provided – or updated annually and provided to the Department of Planning. That concludes the – the formal slides and presentation.

MR DUNCAN: Thanks, Lauren. Is there anything further you want to add or are
30 you happy at that point for us to ask questions?

MS BARNABY: Yes, no. We're happy for – yes.

MR DUNCAN: Alice, is there anything you want to start off with?
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PROF CLARK: Um, yeah. Just some exploratory questions around the future coal sources, I guess. And we've talked about, ah, ah, you know, particulates and – and – and dust monitoring. As you look to the future of coal sources coming in and – and – and those coal sources have a variation in terms of – of – of their composition. Does
40 that have any impact, do you think, on, ah, the likelihood of meeting your, ah, recycling accelerated program there? Have you – have you got any projections along those lines that - - -

MR DAVIES: Oh, look – ah, so, yeah, coal contracts and – are regularly reviewed.
45 I guess there's an innovator team that looks at ash recycling, coal supply.

PROF CLARK: Yeah.

MR DAVIES: Um, and certainly different types of ash or different qualities of ash that may come from different coals will have – be more suited to some recycling opportunities than others. So certainly that’s continually reviewed, so that as we develop our ash recycling projects they’re, ah, targeted at, um, being, ah, applicable or consistent with the type of coal quality and ash quality that we’ll have going forward.

PROF CLARK: Mmm.

10 MR DAVIES: Yeah. Any anticipated, um, ah, I guess, impacts on the size of the dam that we now think will take us to the end of the – the life of the station?

MS BARNABY: From the coal quality?

15 PROF CLARK: Mmm.

MS BARNABY: Um, so we, ah, we have, ah, licence conditions around quality of coal. Um - - -

20 PROF CLARK: Yep.

MS BARNABY: That’s certainly something that – um, we obviously, ah, have coal contracts in accordance with that. Um, so when we, ah, do our ranging, or our forecasting, for capacity, um, we take that into consideration. So, um, if you look at the recycling of, ah, achieving between 30 and 40 per cent, um, we – we take probably the low end of that, to ensure that we’ve got enough capacity. Yeah.

MR DUNCAN: Just on – just on that issue. Ah, percentages – currently, on average, 35 per cent, say, of ta – a goal of 80 per cent. What’s the realistic sort of projection based on future opportunities?

MS BARNABY: Yeah. Oh – oh.

MR DAVIES: Look, I think – I mean, certainly right at the moment the – the – the range of projects, ah, that are being investigated have the potential to get very close to or, ah, get to the goal. I mean, we’re – we’re - - -

MR DUNCAN: Right.

MR DAVIES: - - - making every effort to get to 80 per cent ash recycling. Um, the – the – I guess the challenge is – well, there’s – obviously there’s market drivers, so there’s an amount of ash that’s – ah, you – you can sell into different markets in different products. There’s also regulatory – challenges that we have, so we need to supply ash in accordance with the coal ash order. People need to have, ah, an exemption to be able to receive ash, and - - -

MR DUNCAN: Yes.

MR DAVIES: - - - there's regulatory – so our customers need to go through a process as well, ah, in order for them to be able to use ash in some – for – in some circumstances.

5 MR DUNCAN: So in your recycling strategy, there is potential to get to the goal. It's – it's a matter of other – what you're just telling us – there are other impacts - - -

MS BARNABY: Other challenges.

10 MR DUNCAN: Other challenges that would - - -

MS BARNABY: That's right.

MS DOBSON: External factors.

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MS BARNABY: External factors.

MS DOBSON: Yeah.

20 MS BARNABY: Yeah.

MR DUNCAN: Okay. Yeah.

25 MS BARNABY: So certainly, um, as I – as I mentioned, the long-term ash management strategy. We're just finalising this year's version to - - -

MR DUNCAN: Right.

30 MS BARNABY: - - - submit to – well, this year's update, rather, to submit to DPE, um, so that should be available in the next few weeks as well.

MR DUNCAN: Okay. Sorry if I interrupted.

35 PROF CLARK: No, no. Not at all. Um, there's another couple of questions that I wanna ask, but there's one point that's – might seem quite minor; it's just there's a difference in the numbers. So throughout the report we talk about, um, ah, ah, the project area being four per cent or seven per cent, but in the presentation today it was all four per cent. Um - - -

40 MS BARNABY: Yeah.

PROF CLARK: What is it?

45 MS BARNABY: What – what is that? Yeah, sure. So, I guess, ah, four per cent relates to the ash deposition area.

PROF CLARK: Mmhmm.

MS BARNABY: There's still a requirement to construct other, um, ancillary infrastructure, so the new drainage, etcetera.

PROF CLARK: Oh, okay.

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MS BARNABY: Um, so that's probably the – that's, sorry, the – why we have the range. So it's four per cent in relation to the increase in ash area.

MR DUNCAN: Mmm.

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MS BARNABY: Seven per cent including all the ancillary infrastructure.

PROF CLARK: I - - -

15 MR DAVIES: And I think the other point – one of those slides was probably around air quality management, so, um, you – you would have noticed from the site visit today that, um, some of the areas that the project's proposed to be built in are already disturbed areas, so they're not, um – they're not additional in terms of the area that would be available to result in windblown dust. So, um, yeah.

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PROF CLARK: Um, the second question that I had relates to, ah, the introduction, ah, of the conversation around, ah, the dam wall and the seismic, um, ah, level. It's a question that you might wanna take on note - - -

25 MS BARNABY: Okay.

PROF CLARK: - - - and – and get back, but – or – or you may be able to answer it now. And it relates to, um, ah, mining operations, subsurface mining operations. Did that report deal with, um, ah, mine blast, ah, um, impacts? Ah, considering the current ones but also should a – a mining operation occur deeper, in deeper coal seams. So it's a question for note. Did that – did it only look at natural seismicity or did it also look at the potential for mine seismicity, or was that dealt with in any way?

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35 MS BARNABY: Okay. Thank you.

PROF CLARK: And then the second question around, ah, the dam wall, if, ah – looking at – I haven't got the figure, um, in front of me, but it is on the wall behind you there. If you look at the, I guess, aerial projection through to the topography on the bottom - - -

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MR DUNCAN: Where?

PROF CLARK: Um - - -

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MR DUNCAN: Check on that.

PROF CLARK: It's that second one over there, Peter.

MR DUNCAN: Uh huh.

5 PROF CLARK: The one on the right-hand side.

MR DUNCAN: Yeah.

PROF CLARK: Nah. I didn't see it in there.

10 MS BARNABY: Sorry. Do you want the - - -

PROF CLARK: Yeah. It's sort of in here.

15 MS BARNABY: You can have the - - -

PROF CLARK: Yeah. Thank you.

MS BARNABY: It's just that red button.

20 MR DUNCAN: Here it is. Here it is.

PROF CLARK: We might be able to tease it out of there. And my question is, here
25 you can see the original drainage pattern underneath of the original landform, and
you can see here where the new extension will go, and we're looking at, um, what
happens to the water that comes off through there. My question is, in any of the
geotechnical work, did people ask if the – or look at whether there was potential for
reactivation of that original, um, water flow transit through there? And if they did,
30 probably, for note, but came up, um, in conversations.

MR DUNCAN: Okay.

35 MS MALULY KEMEID: We take those for note.

PROF CLARK: Thank you.

MS MALULY KEMEID: Yeah.

40 PROF CLARK: Um, shall we keep going?

MR DUNCAN: Yes. Yeah, sure. Um - - -

45 PROF CLARK: Yeah. Thank you. Yeah. So that's the - - -

MR DUNCAN: You're covering some of my questions, yeah. Keep going.

PROF CLARK: So that's connectivity with respect to the new extension along the channels – previous channels and potential for impact on the dam wall. Um – oh, the next question is one that I thought of after we left stop number 2. Was the area that we were standing on in stop number 2, ah, regenerated, um, in terms of, um, plant
5 life, and ha – had it been rehabilitated by – by the operation? Or was that original, um – ah, so – so - - -

MS DOBSON: Number 2, yeah. That's all original in that location.

10 PROF CLARK: So where we stopped – which I think was roughly here, wasn't it?

MS DOBSON: Ah, that was stop number 1. Number 2 was probably a little further up.

15 PROF CLARK: Up there? Yes.

MS BARNABY: Yes, up there.

MS DOBSON: Yeah, roughly. Yeah.

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PROF CLARK: Okay.

MS DOBSON: So that's all original.

25 PROF CLARK: That's all original.

MS DOBSON: Yeah.

PROF CLARK: Thank you.

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MS DOBSON: Yeah.

MR DUNCAN: So while we're on that, with offsets, um, it's a question that's been raised in other discussions, but you're planning some offsets, and you've got a
35 strategy for that, um, and from what I hear, ah, that's progressing. But this – is this actually – this work, it will impact some existing offset areas?

MS DOBSON: Um, no, it shouldn't.

40 MS BARNABY: No.

MR DUNCAN: It doesn't?

MS BARNABY: No, it doesn't.

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MR DUNCAN: So that – that's clear? Because there was - - -

MS BARNABY: Yes.

MR DUNCAN: - - - a question - - -

5 PROF CLARK: Yeah.

MR DUNCAN: - - - came, ah, in our discussions with council that if you're impacting other offset areas - - -

10 MS BARNABY: Mmm.

MR DUNCAN: - - - obviously you have to reinstate. So it's not just the offset for the project but - - -

15 MS BARNABY: Yeah.

MR DUNCAN: So – but that's not happening? That's - - -

20 MS BARNABY: No, that – that offset area is actually further around, ah, above, ah
- - -

MS DOBSON: Yes. To the north and to the east.

25 MS BARNABY: - - - are all to the hill.

MR DUNCAN: Okay.

MS BARNABY: Yeah.

30 MS DOBSON: Yeah.

MR DUNCAN: Okay. All right. So – okay. Any – ah, any update on the offset process, where – where you're up to with that? That - - -

35 MS DOBSON: Um, I think - - -

MR DUNCAN: You've got a - - -

40 MS DOBSON: - - - we're just considering the availability of the land-based offsets.

MR DUNCAN: In this sort of general area.

MS DOBSON: Yeah.

45 MS BARNABY: In the general area.

MS DOBSON: Yeah. That's right.

MR DUNCAN: It's not – it's not all on the site. It could be - - -

MS DOBSON: Yeah. Yeah. Yep.

5 MR DUNCAN: - - - close by, I think.

MS DOBSON: Yeah. And obviously we'd need to negotiate with any other landholders before - - -

10 MR DUNCAN: Yeah.

MS DOBSON: - - - making final decisions there.

15 MR DUNCAN: So in the report there's a certain amount of kilometres where it's still considered to be appropriate within that distance.

MS DOBSON: Yeah.

20 MR DUNCAN: Yeah. All right.

MS BARNABY: Yeah.

MR DUNCAN: That's fine.

25 PROF CLARK: I've pretty much covered all my areas there, Peter.

30 MR DUNCAN: Okay. Ah, I've got a couple more. Um, air quality and water quality monitoring will be all part of licence and conditions. Ah, with the air quality monitoring, there was, um, again, a question about, um, the dust dispersal modelling that's occurred, and council were asking to have access to that in the process. Is that – does that occur through your community consultative process?

35 MR DAVIES: So I'm not aware that, ah, dispersion modelling studies were undertaken as part of this EI – EIS.

MR DUNCAN: Oh, okay.

MR DAVIES: For this – for this - - -

40 MR DUNCAN: So this is a this is a separate issue, is it?

MR DAVIES: Oh - - -

45 MR DUNCAN: That the - - -

MS BARNABY: Probably need to – to clarify that with council.

MS DOBSON: Yeah. We might have to take that - - -

MR DAVIES: Maybe clarify just the question, yeah, where - - -

5 MS BARNABY: And we're more than happy to - - -

MR DUNCAN: Could I ask you to do that, to - - -

MS BARNABY: We're more than happy to engage with council to do that.

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MR DUNCAN: - - - ask you to do that directly, because that – that - - -

MR DAVIES: Yeah.

15 MS BARNABY: Okay.

MR DAVIES: Mmhmm.

MR DUNCAN: - - - um, covers up that issue, and if there is – um, if there is
20 feedback for us, we'd appreciate it.

MS BARNABY: Okay.

MR DAVIES: Mmm.

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MR DUNCAN: Okay.

MS BARNABY: And that was specifically in relation to air quality - - -

30 MR DUNCAN: Yes. The - - -

MS BARNABY: - - - dispersion modelling?

MR DUNCAN: Yes.

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MS BARNABY: Okay.

MR DUNCAN: Ah - - -

40 PROF CLARK: I do have one more I - - -

MR DUNCAN: Yes. Go - - -

PROF CLARK: - - - forgot that I remembered.

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MR DUNCAN: Go ahead.

PROF CLARK: Ah, when we were driving along, ah, the aqueduct that will be built to capture the fresh water, um, sitting uphill from that is the covered, ah, conveyor belt that the coal comes out of. So in a storm event, from underneath the conveyor belt you could see, you know, the normal sediments that happen off conveyor belts
5 from coal or anything. Ah, ah, ah, I guess my – my question is – is, have people thought about what happens when the rain washes that out into the clear water aqueduct and goes on, and – and what sort of remediation, um, activities do you think will – will address that?

10 MS BARNABY: Ah, in relation to the existing stormwater scenario?

PROF CLARK: No. When we go through - - -

MS BARNABY: Or - - -

15 PROF CLARK: - - - through the modification.

MS BARNABY: The new - - -

20 PROF CLARK: Yeah. Yeah.

MS BARNABY: Ah, the proposed. Yeah.

PROF CLARK: Mmm.

25 MS BARNABY: So we will need to address that in the detailed design. Ah, the detailed design hasn't been finalised for that area. Um, but, yes, obviously that is a potential source, as you identified, so we'll need to – yeah. We'll need to address that.

30 PROF CLARK: Thank you.

MS BARNABY: Yeah. I - - -

35 MR DUNCAN: Okay. I've got a couple more. The, um, sport and rec facility – and, ah, you know, you've covered the issue of the stability zone.

MS BARNABY: Yeah.

40 MR DUNCAN: Is there any update or change or impact on the sport and rec facility from this project's point of view? I mean, you've answered that there's no impact on that stability zone.

MS BARNABY: Yes.

45 MR DUNCAN: So there – is there any change? Ah, obviously the Office of Sport were – were onsite today.

MS BARNABY: Yes.

MR DUNCAN: And they've made a submission. But is there any update on that, at this stage?

5

MS BARNABY: Sure. Yeah. So – so, yes, I can provide, um - - -

MR DUNCAN: Thank you.

10 MS BARNABY: - - - an update on that. So, um, through the, um, Department of, um, Family Services - - -

MR DUNCAN: Yeah.

15 MS BARNABY: - - - ah, and Dams Safety Committee, um, they engaged, um, an independent reviewer, ah, to review our stability work and our findings and - - -

MR DUNCAN: Yes.

20 MS BARNABY: - - - recommendations, and that was, um, SMEC. Um, that report has been prepared and there were some recommendations. Origin has since, um, addressed those recommendations and - - -

MR DUNCAN: Yeah.

25

MS BARNABY: - - - provided its response back to Dams Safety. Um, so that final information is now with – with Dams Safety, um, in – and, um, yeah. I guess that information will be provided through to Office of Sport in relation to - - -

30 MR DUNCAN: Okay.

MS BARNABY: - - - um, their decision to close the rec centre.

35 MR DUNCAN: So any – anything that's come out of that report, the recommendations will be, obviously, implemented in line with the agreed strategy.

MS BARNABY: That's right. So we – um, as we mentioned earlier, ah, we'll be, um, remediating, um, the dam, so doing foundation remediation and - - -

40 MR DUNCAN: Okay.

MS BARNABY: - - - a further buttress on the actual embankment. Um, in relation to the – the rec centre, obvi – obviously, that's a decision for the Office of Sport, and they now - - -

45

MR DUNCAN: Okay.

MS BARNABY: - - - um, will – should have all of that information.

MR DUNCAN: So just – just a question of detail, but the buttress is, like, an earth
buttress on the outside of the - - -

5

MS BARNABY: Yeah.

MR DUNCAN: - - - of the - - -

10 MS BARNABY: That's correct, yeah.

MR DUNCAN: Okay. All right. I – from my point of view, I have a final question,
and that goes to the remediation strategy for end of life, and if you could provide us
with a bit of background on that and understanding of that, and, ah, what sort of
15 experience you've had on that in the past and – and what you expect to happen in this
process.

MS BARNABY: Sure. Yeah. Okay. Um, so in – in relation to, um, our – our site,
um, obviously we, ah, have announced Origin, um, will not be operating, ah, sorry,
20 Eraring post-2032.

MR DUNCAN: Yes.

MS BARNABY: That's our commitment. Um, and as I identified before, ah, we
25 will be, um – we – we will implement, ah, temporary caps, um, and it probably won't
be until the last 12 months of operations where we actually understand when the end
of operations will be as to, um, what the timeframe will be for the final capping of
the ash dam.

30 MR DUNCAN: Okay.

MS BARNABY: Um, in relation to that, um, we will be looking to design a cap that
is – obviously, ah, ensures that the dam is safe and stable and, ah, minimising any
potential pollution, as well. So the - - -

35

MR DUNCAN: Yes.

MS BARNABY: Sort of the general criteria. Um, unlike, um, say, a mining tailings
dam, ah, we don't have, um, a – a mine operations plan with specific requirements at
40 that point. Ah, we just have the, um, existing, um, re – remediation plans that we
prepare through our long-term, um, ash management strategy.

MR DUNCAN: Yeah.

45 MS BARNABY: But we are committed, obviously to minimising, um, any
environmental impacts and, obviously, the safety of our community, so they will
certainly be factors in relation to how we design that end state, um, you know, to

shed water, etcetera, and ensure stability. Um, as I mentioned before, um – and it is happening, um, in the US, and we, obviously, are looking at – ah, looking to other countries around recycling of ash where they actually are, um, using ash from, um, those old, um, ash ponds in other – other countries. So we certainly will be also
5 continuing to look at that as a – as a continued, um - - -

MR DUNCAN: Yes.

MS BARNABY: - - - facility to – to use as a – a resource - - -
10

MR DUNCAN: Okay.

MS BARNABY: - - - ah, for recycling. Um, notwithstanding, obviously, depending on what happens in the future, we'll still obviously be planning to understand, if we
15 are to cap and enclose that facility, um, how we will engineer and design that cap to ensure, as I said, the safety and, um, environmental, um, safeguards around that as well.

MR DUNCAN: Okay. Anything further?
20

PROF CLARK: Nothing further from me.

MR DUNCAN: Lisa, do you have any questions?

MS L. HONAN: Um, it's – it's more so – sorry. Lisa Honan from IPC. Ah, just a –
25 more a site orientation question about – you mention you've got some recyclers who are located onsite, and I think one – as part of the ancillary, um, infrastructure – was that people might need to move. Like, Boral or someone might need to relocate. Just wondering if you could point them out on the aerial photo, exactly where they
30 are.

MS BARNABY: Ah, yeah. Sure.

MS HONAN: And where they're going to.
35

MS BARNABY: Mmm.

MS DOBSON: I think you need to log in.

MS BARNABY: Oh, that's – I had it.
40

MR DUNCAN: Ah, do you wanna – do you – here's the map. If you wanna - - -

MS BARNABY: Oh, yeah, sure. I'll point to it on the map.
45

MR DUNCAN: - - - show us on the map, it might be easier.

MS BARNABY: Absolutely. So we ha - - -

MR DUNCAN: So we're – we're looking at figure – figure whatever.

5 PROF CLARK: 3.

MS HONAN: Figure 3.

MS BARNABY: Yeah.

10

MR DUNCAN: Figure 3 out of the - - -

MS BARNABY: That's right. So we currently have, um, Boral in this area here, which is just to the south of where the embankment is.

15

MR DUNCAN: Sort of south-west, is it?

MS BARNABY: Um, yeah. South-west, yeah.

20

MR DUNCAN: Yeah. Yes.

MS BARNABY: So in through here. And they recycle bottom ash.

MR DUNCAN: Yes.

25

MS BARNABY: Um, so that's the pumice-style ash. So, um, obviously we're looking at that area, um, whether or not that's something we could move, um, just further south.

30

MR DUNCAN: Okay.

MS BARNABY: Or – or – so – or closer to the actual site operations as well. Ah, we're also looking at options as to whether or not we could, um, extract that, um, directly from the station. Um, you know, at this point we actually sluice it with
35 water up to this point. Um, so that's how we transport it, so similarly to the, um, finer ash as well. So it'll either be relocated somewhere adjacent to that area out of the dam footprint, or, as I said, looking at a – a site closer to the actual station site itself.

40

MR DUNCAN: Okay.

MS BARNABY: Is – that's - - -

MS HONAN: Yeah.

45

MS BARNABY: Yeah.

MS HONAN: Ta. Thanks.

PROF CLARK: Thank you.

5 MR DUNCAN: Yeah. I do have another one. The – you mention the Dams Safety
Committee, ah, and the – and the work you’ve had done. Any work you do on that –
on the issue – and it’s not this project, but on the – the risk issue that you have with
seismic – potential seismic activity, that’s – that’s done through an EPA licence
10 process, or the Dams Safety Committee approval?

10 MS BARNABY: So – yes. I can answer that.

MR DUNCAN: Yes.

15 MS BARNABY: Ah, yeah. So the actual, um, design of, um, the stability works
- - -

MR DUNCAN: Yes.

20 MS BARNABY: So that’s, um, designed and we actually provide that to the Dams
Safety Committee.

MR DUNCAN: Yes.

25 MS BARNABY: Um, Fernanda, um, as the lead ash dam engineer, she will manage
that process.

MR DUNCAN: Yes. And – and you implement that – that work will be
30 implemented so that – the buttressing and all that sort of work?

MS MALULY KEMEID: Yes. We need to – we need to have this – ah, we
communicate, ah, frequently with the Dams Safety Committee – oh, the Dams
Safety, now - - -

35 MR DUNCAN: Yes.

MS MALULY KEMEID: - - - um, updating them on – ah, on the status of the
project.

40 MR DUNCAN: Yes.

MS MALULY KEMEID: So, yeah, we are following, um, the current regulation.

MR DUNCAN: Okay. Alice?

45 PROF CLARK: Nothing further.

MR DUNCAN: Lisa?

MS HONAN: No. Nothing further.

5 MR DUNCAN: Okay. Well, that's – that's all the formal questions. Is there anything, Lauren, you want – you wanna round, ah, out with? Or you're comfortable with the presentation as it stands?

10 MS BARNABY: Ah, yeah. I guess, just thank you, ah, for your time today. Um, as I said, it's – it's a critical project, as you understand, so, um, yeah. We appreciate your time.

MR DUNCAN: Okay. Thank you.

15 MR DAVIES: Thank you.

MR DUNCAN: Thank you.

20 MS BARNABY: Thank you.

PROF CLARK: Thank you.

MS HONAN: Thank you.

25 MR DAVIES: Thank you.

MR DUNCAN: Thanks, everybody, for being here.

30 MS DOBSON: Thank you.

MR DUNCAN: I formally close the meeting at that point.

MATTER ADJOURNED at 1.26 pm INDEFINITELY