

MR A. HUTTON: Thank you for coming along. Apologies for running a little bit behind schedule. So what I will just open the meeting and before we begin I would just like to acknowledge the traditional owners of the land on which we meet, the Gadigal people, and pay my respects to their elders past and present. Welcome to the meeting today on the development application for SSD 8658 in relation to the Gunnedah Solar Farm or Gunnedah Solar Farm Proprietary Limited, the applicant, who proposes to develop a new 150 megawatt solar farm approximately nine kilometres north-east of Gunnedah within the Gunnedah local government area. My name is Andrew Hutton. I'm the chair of the IPC for this panel and joining me are my fellow commissioners, Tony Pearson and Annelise Tufor.

MS A. TUOR: Tuor.

MR HUTTON: Tuor. Sorry. Apologies. What I might do is just ask you to introduce yourselves, please. If you could just introduce yourself and your company just for the purpose of the transcript, that would be great. Thank you.

MS C. MILLIS: Sure. Yes. So Chelsea Millis. I'm the project manager representing Canadian Solar.

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MR HUTTON: Thank you.

MR A. BISHOP: Adam Bishop with pitt&sherry, part of the team that developed the environmental impact statement for the project and I had oversight of soil and water issues.

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MR N. GUZOWSKI: Nick Guzowski representing Photon Energy and Polpo Investments as a project developer on the Gunnedah Solar Farm.

MS M. FACEY: And Malinda Facey from pitt&sherry. I was the project director for the environmental impact statement.

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MR HUTTON: Thank you. Much appreciated. So in the interests of openness and transparency we will be capturing all the information today and we will be recording the meeting and we will produce a full transcript that we will produce and make available on the Commission's website. What – just as a matter of process, what I will ask is that when you're speaking – certainly, in the first instance, if you could just state your name so that we can capture voices and so forth through the process. So, as you're aware, this meeting is one part of the Commission's decision-making process and it takes part – takes 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's important for the Commissioners to ask questions of the attendees and to clarify any issues that we think are necessary to clarify or consider appropriate. If you are asked a question and you're not in the position to answer that question, then, please do feel free to take that question on notice and you can provide additional

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information in writing which we will subsequently put up onto our website. So I might begin. I understand you have a presentation today, so I think - - -

MR GUZOWSKI: That's right.

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MR HUTTON: The best thing to do is maybe start with the presentation and we will sit tight and then maybe ask questions throughout if that's appropriate or otherwise we will save some questions till the end, so I will hand over to you guys and we will just note there's a presentation being circulated – a copy of the presentation and a copy on the screen which will be made available on the
10 website. So I will hand over to Nick.

MR GUZOWSKI: Thank you. So I will start with a bit of background on the proponent. So the Gunnedah Solar Farm is a joint development between Photon
15 Energy, Polpo Investments and Canadian Solar, so these applicants, in partnership and individually, currently a portfolio of projects across New South Wales and Australia, spread across various regions including Gunnedah, Dubbo, so Wellington, New South Wales in the Dubbo Regional Council, Bathurst, Leeton, Goulbourn Regional Council and in Gunning. Canadian Solar is currently commissioning
20 Oakey and have recently commission Longreach and Normanton Solar Farm and the rest of the portfolio is in various stages of the planning process, the most developed, which is the Suntop Solar Farm which is awaiting determination.

We've been through the exhibition process. Maryvale Solar Farm is about to enter
25 into the exhibition process on 21 November, so a range of developments in different stages and I guess a deep expertise as well. Canadian Solar are one of the largest developers globally and a large panel manufacturer and Photon Energy has 10 years of development experience both in Australia and overseas, mainly in Europe. So why do we choose the site that we chose for Gunnedah Solar Farm? So it's a number
30 of different reasons, mainly led by its proximity to major infrastructure which is the Gunnedah substation and the 132 kilovolt transmission line which intersects the project site.

Other factors that were relevant were the topography of the land, the lack of
35 vegetation on the land, so it's a cultivated site with very little vegetation. It's a very flat piece of land which makes for, you know, ease of constructability. It's in an area with very strong solar yield which means the output from the solar farm is high. The lots were suitably sized; it's north-facing land; it's in convenient access to major transport routes. I guess, partly because of its cultivation, it had limited heritage risk.
40 It was heavily cropped land, and continues to be cropped. We managed to form an agreement with the landowner. And, I guess, another relevant point is the restricted water licensing on site, which the current landowner uses to crop irrigated crops, and that was part of, I guess, why the landowner agreed to host the project on his land, because of that restricted water licensing. And just to give you some perspective
45 here, he has water licences to irrigate 180 hectares of the 795-hectare site, of which 304 hectares will be taken up by the solar farm project.

MR HUTTON: So – Andrew Hutton speaking – as I understand it, then, the limitations on cropping the land are more about water allocation than capacity or capability of the land itself?

5 MR GUZOWSKI: That's right.

MR HUTTON: Yes.

10 MR GUZOWSKI: That's right. And, I guess, in choosing the precise layout, we were, I guess, in consultation with the landowner in choosing those less suitable sites for continued irrigated cropping.

MR HUTTON: Yes.

15 MR GUZOWSKI: He kept his best land for that continued irrigated cropping. The consultative process to actually, you know, figure out the layout of the solar farm within his broader land. And as part of choosing the site, all of these relevant factors were – did undergo a fatal flaws analysis, where we deemed the project, I guess, you know, worthy of a more detailed environmental impact assessment and further – you know – further development.

20 As a high-level overview, so the proposed solar footprint is 304 hectares of the total 795-hectare site. It will take up approximately 460,000 panels. It's 150-megawatt DC project. The panel configuration will be a single-axis tracking panels, which will be up to three metres in height. And that's a north-south configuration: so the rows of panels run north to south, and then they track east to west with the sun.

MR HUTTON: Yes. Yes.

30 MR GUZOWSKI: The rows will be 5.5 metres apart, so there will be room to run, I guess, heavy machinery between the rows for - - -

MR HUTTON: So what sort of distance between panels, just to visualise that? Is it - - -

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MR GUZOWSKI: Between panels - - -

MR HUTTON: - - - three metres, or four metres?

40 MR GUZOWSKI: Yes, so the - - -

MR HUTTON: I take it - - -

MR GUZOWSKI: So the panels are going to be two by one.

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MR HUTTON: Yes.

MR GUZOWSKI: And it's going to be a single portrait configuration. So on the structural post, they'll overhang that one metre on each road.

MR HUTTON: Yes, okay.

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MR GUZOWSKI: Yes. So from that – the actual structural posts are 5.5 metres apart, so then there will be three and a half metres - - -

MR HUTTON: Okay.

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MR GUZOWSKI: - - - when the panels are flat, between the actual panels.

MR HUTTON: Yes, okay.

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MR GUZOWSKI: Yes. So 5.5 metres between the structural post.

MR HUTTON: Yes.

MR GUZOWSKI: Take off a metre each side, because - - -

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MR HUTTON: Yes.

MR GUZOWSKI: - - - the panels, at - - -

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MR HUTTON: Yes.

MR GUZOWSKI: - - - flat – yes – take up one metre each side. So three and a half metres apart between the panels. There will be 45 inverter stations. There will be a substation constructed on side, which will connect into TransGrid infrastructure system, into the 132 kV line in close proximity, intersecting the host's land. In terms of the operational life, it's 25 years, with a possible extension. The construction period will be 12 months. The construction phase will have up to 150 construction workers at the peak, and ongoing operation will require the equivalent of 10 full-time operational jobs, which will be split between full-time operation and site maintenance, and then subcontractors to do other jobs.

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MR HUTTON: Just another question - - -

MR GUZOWSKI: Yes.

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MR HUTTON: Andrew Hutton speaking – the reference to the extension: that's around upgrades of the facility, or - - -

MR GUZOWSKI: So that'll be - - -

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MR HUTTON: - - - are you talking about - - -

MR GUZOWSKI: - - - an assessment, at the time of the first – at the end of the first 25 years, whether it’s feasible and economic, or – to extend the project and potentially repower it. Yes, it’s unknown, you know, at the end of the 25-year project life, what the power needs will be and what - - -

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MR HUTTON: Yes.

MR GUZOWSKI: - - - the economics will look like.

10 MR HUTTON: Yes.

MR GUZOWSKI: But we do have the option with the landowner to extend the lease for an extra 25 years.

15 MR HUTTON: So is that using the same kit, or is it – does a solar panel have a life of 25 years, and then you have - - -

MR GUZOWSKI: Yes.

20 MR HUTTON: - - - replace the panel?

MR GUZOWSKI: So over that 25 years, the efficiency of the solar panels will go down.

25 MR HUTTON: Right.

MR GUZOWSKI: And so, at the end of the 25 years, I guess, an assessment – a technical - will be made whether to replace the panels, extend the life of the solar farm, and whether it’s economic to do so. If not, we will go into the
30 decommissioning process; if so, extend the lease, and repower the site, and extend the solar farm life. And the last point, the capital investment value of \$201 million.

So just an overview of the construction process. Sol pending approval, the construction phase would commence in 2019. It’s approximately a 12-month
35 program. It’s made up of pile-driving; trenching for the cables; firming of access roads; limited earthworks and we processes;. It’s a fairly flat site, which won’t need many earthworks. There’ll be security fencing constructed around the perimeter. There’ll be electrical works done both between the panels, the inverter stations, and through to the substation; and then the commissioning process, which is a process of
40 testing the solar farm once it’s built, testing its interaction with the grid, and then – you know – if everything works as it’s supposed to work, powering it up and connecting it onto the grid, so it’s, you know, sending power out onto the grid.

So transport to the site will be via an approved and predetermined access route.
45 Construction hours will be from 7 am to 6 pm Monday to Friday, and 8 am to 1 pm on Saturdays, and there will be up to 150 workers during peak construction.

So if it's determined, at the end of that 25-year operation, that decommissioning is the pathway – or, if, you know, it's determined that it's worth extending, then after that extra 25-year period – the decommissioning process will take place. And that's going to be a process that's going to be consulted with stakeholders and with local council about how that process is run. But from a process point of view, it's quite simple, because it's, you know, dismantling the panels; it's taking out the support structures of the panels, which are pile-driven, so they'll be pulled out – there's no, you know, wet processes to mount those support structures – so they'll be taken out; the cabling will be taken out of the ground, which is, you know, in trenches; and then the only piece of infrastructure that will remain on site will be the substation, which becomes part of the TransGrid infrastructure. So it's a fairly simple decommissioning process.

MR HUTTON: Just – quick question – sorry.

MR GUZOWSKI: Yes.

MR HUTTON: There's 460,000 panels.

MR GUZOWSKI: Yes.

MR HUTTON: At decommissioning, that would be a lot of waste material, or – what has been your experience with – in the industry - in terms of decommissioning solar panels, and the waste, and dealing with the waste that would result from a full decommissioning of the site?

MR GUZOWSKI: Yes, so where possible – and, I guess, it's unknown at this point of time – but where possible, the support structures and the panels will be recycled. So there's a lot of steel there that is quite valuable. The solar panels, you know, even though they've decreased in efficiency, they – you know – where possible, they will be recycled or repurposed. Appreciate it's – yes – it's a lot of panels to do something with, but that'll, you know, be undertaken with reference to a management plan and decommissioning plan.

And, you know, even in the approval process, we've been consulting with, I guess, waste management facilities, as well, about how to, you know, manage the waste for the construction. So a lot of the packaging; a lot of the pallets that the materials will be delivered on or in: we've consulted with waste management facilities about the disposal of them and the capacity of those various waste management facilities and logistics to manage that waste. A similar process would be undertaken with the decommissioning, and the waste, and the recycling of those materials that we'd be dealing with during that decommissioning.

MS TUOR: Annelise Tuor. In relation to the decommissioning, you mentioned the plan. Is that something that you prepare during, you know, the life of – the 25 years – towards the end of it, once you know that you're going to stop - - -

MR GUZOWSKI: Yes.

MS TUOR: So at the moment there doesn't seem to be any condition that actually deals with that in the proposed consent.

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MR GUZOWSKI: So we've got an agreement with the landowner, contractually, that we'll be, you know, decommissioning, and we'll be leaving the project site in a state, you know, similar to how we found it. So there's a commitment there, contractually, with the landowner. And during the – I guess – the end of the life of the project, we'll work in consultation with Council, and with those waste management facilities, to manage that process. But if Malinda has anything to add
- - -

MS FACEY: Yes – Malinda from pitt&sherry. It's also in the Environmental Impact Statement that we've done a draft land management plan, and as part of that draft land management plan is a commitment to do the decommissioning plan as well.

MR PEARSON: Has – in your lease with the landowner, is there any obligation to provide bonding?

MR GUZOWSKI: No.

MS TUOR: But in terms of creating greater certainty, would you have any objection to condition 29 being expanded to include the requirement for your decommissioning management plan?

MR GUZOWSKI: No.

MS FACEY: No, because it would be done anyway, so - - -

MS TUOR: Yes, yes.

MR HUTTON: Thank you.

MR GUZOWSKI: Thank you. So, moving on to stakeholder management – engagement; sorry. So throughout the process, I guess, from the beginning, starting with the preliminary environmental assessment and working through the SEARs process, we've been working closely with Gunnedah Shire Council about the development; and then this SEARs process, in, I guess, creating the SEARs, there were various government agencies consulted for their input.

So several concerns were raised during that consultation process, both through the SEARs and consultation directly with those departments. They included traffic; roads – and that includes the condition and the route which the, I guess, heavy vehicle movements will be taking to deliver construction materials during the construction phase – SEPP 33, which was related to koala habitat, flooding and

social issues. There was consultation also with Aboriginal groups, including the local area land council.

5 MR PEARSON: Could you just give a bit of background: there's another organisation that has indicated that it wasn't consulted - - -

MR GUZOWSKI: Yes.

10 MR PEARSON: - - - as part of the initial process - - -

MR GUZOWSKI: Yes.

15 MR PEARSON: - - - and there's some obligations on – proposed conditions to try and remedy that. Could you give some background as to the Aboriginal – the consultation process that you - - -

MR GUZOWSKI: Absolutely.

20 MR PEARSON: - - - did undertake - - -

MR GUZOWSKI: Yes.

25 MR PEARSON: - - - and how it, sort of, intersects with the second of the two groups.

30 MR GUZOWSKI: Absolutely. I might just move to that slide and come back to the slide afterwards. Yes. We do have a slide dealing with that. So during the process following SEARs, we have an indigenous heritage consultant come on site and do an assessment of, you know, in heritage items on site and it was found that the proposed development wouldn't be interfering with any indigenous heritage items on site. So that that led - I guess, the outcome of that would be that it was that a formal consultation process was not required. Regardless, we did a walk through with the local area – Aboriginal local area land council and that was included in our EIS which we submitted.

35 And then during the exhibition period of that EIS was when these additional groups were made contact with both the department and also the proponent directly. It was recommended by the department that we do some further consultation with those groups and that's what we did and OEH was satisfied that provided we did additional site visits and consultation with those groups prior to construction, then that was satisfactory to them. Yes. And OEH was happy with that approach, so if I can move to community engagement. So community engagement was started briefly after the project was made public on the department website, which was after the – after we submitted a preliminary environmental assessment to the department and that was assessed and approved by them and made public during the SEARs process.

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Shortly after that, we did a public meeting in Gunnedah and advertised that locally through the newspaper. And then since that time, there has been pretty close community engagement with both, I guess, that group that we identified at the beginning of that period through that advertising through the community meeting.

5 Also, we had specialists visit site to perform noise assessments, visual impact assessment. So the – I guess that group of impacted stake holders was – went under various assessments and it compiled both, I guess, an interested group and then an impacted residents group.

10 Since that time, we've been holding one on one meetings with those interested stake holders, you know, who live in close proximity or have visual impact over the site or who have wanted ongoing consultation. Communication with them has included email, phone calls, one on one meetings in January 2018 and March/April 2018 group meetings. And then we've tried to keep the broad community informed with
15 fact sheets and newsletters as well which we've sent to them. In terms of the responses, there were 29 registered attendees – that community meeting – and then we used those various methods to contact 34 residents within the locality of the site and then 26 of those were community members and 15 were neighbouring residents. So this - - -

20 MS TUOR: Sorry, just back on that point.

MR GUZOWSKI: Yes.

25 MS TUOR: So presumably, the immediately affected neighbours are now aware of your modifications in terms of the drop-down fencing and changes that you've made.

MR GUZOWSKI: That's right. Yes. So I will go through it in a slide in a second. But from the beginning of that process, through the consultation process, I guess, it
30 was an information gathering exercise for us as well. Through the EIS process, we did a lot of our, I guess, detailed and modelling, and, you know, we had anecdotal evidence provided by those community members and impact residents of information that led to various changes of our site layout and design, including the fencing solution and we tried to schedule those one on one meetings after making, I guess,
35 substantial changes to those. So the March/April 2018 meetings were after our latest round of modelling where we did come up with, I guess, the final fencing solution and site layout. So – yes. To answer your question, yes, they are aware and we have had those one on one meetings with those impacted residences and surrounding residents since the most recent changes.

40 MR HUTTON: From that experience - - -

MR GUZOWSKI: Yes.

45 MR HUTTON: - - - is it fair to say that the flooding was the key issue for the stakeholders?

MR GUZOWSKI: It was. Yes. The flooding and, I guess, the other issue was the visual impact.

MR HUTTON: Visual. Yes. Okay.

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MR GUZOWSKI: Yes. It's kind of split between, I guess, the locality of those residents. Those residents, I guess, are to the south-east and west of the site were mainly concerned with the flooding and the impact of that flooding and the impact of the security fencing to that flooding. However, the residence to the north were more concerned with the visual - - -

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MR HUTTON: So we've got a - - -

MR GUZOWSKI: - - - amenity and the visual impact.

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MR HUTTON: We've got a plan that the department left with us, I think, which is just an extract from a previous report figure of 6.10, so - - -

MR GUZOWSKI: Yes.

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MR HUTTON: - - - predominantly, this end of the – which is south, I think, of the development was flooding issues and then visual up in the north.

MR GUZOWSKI: That's right.

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MR HUTTON: Yes. Okay.

MR GUZOWSKI: That's right.

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MS FACEY: Generally – sorry, Malinda Facey speaking. Generally speaking, that's right that the people up north were also concerned about flooding as well.

MR HUTTON: Okay.

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MS FACEY: Sorry, I will just – the configuration of fence 5 which is the one that we're going for at the moment - - -

MR HUTTON: Yes.

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MS FACEY: - - - that was – it came about by talking to the Department of Planning and Environment when they were preparing the conditions of consent, the draft conditions of consent.

MR HUTTON: Right. So 5 wasn't the version that you went to the community with.

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MS FACEY: No. It was not.

MR HUTTON: Yes.

MS FACEY: No. No.

5 MS TUOR: Is that just changes to the actual location of the drop-down

MS FACEY: It was the modification, so it was basically the stretching out of the fence to make it more of the perimeter.

10 MR GUZOWSKI: So the addition of extra length of drop-down fencing.

MR HUTTON: Yes.

MR GUZOWSKI: Which was - - -

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MR PEARSON: Can you – where is this – where else is this drop-down fencing used? Is it - - -

MR GUZOWSKI: You mean the type - - -

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MR PEARSON: Yes.

MR GUZOWSKI: - - - the type of fencing?

25 MR PEARSON: Yes.

MR GUZOWSKI: Well, the concept isn't new for farmers. They've been using it in flood plains for quite some time where they have, I guess, stock fencing that's built on a structure that can be released and dropped down in the time of a flood, so that, you know, fencing can be preserved and it's not ripped out. There are even neighbours of this solar farm that use that type of fencing and consultation with fencing contractors – yes, also they're familiar with the concept and they've implement drop-down fencing in the past as well for both – it's agricultural use and for utility use as well.

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MR HUTTON: So I'm clear, we're talking like a six foot - - -

MR GUZOWSKI: Yes.

40 MR HUTTON: - - - seven foot fence.

MS FACEY: There's more detail.

MR HUTTON: Okay. All right.

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MR GUZOWSKI: There's more detail coming - - -

MR HUTTON: Carry on.

MR GUZOWSKI: - - - on the fencing, yes, fencing design.

5 MR HUTTON: Yes. Sorry.

MR PEARSON: On your consultation - - -

MR GUZOWSKI: Yes.

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MR PEARSON: - - - would you describe it as having been successful? How would you describe the outcome of the consultation process?

15 MR GUZOWSKI: I think it has been successful from the point of view of giving as much information to those concerned residents as we can. We've gone through several rounds of modelling and additional modelling is changing the layout of the site and trying to accommodate and appease various concerns as much as we can. During that process, we've provided scientific evidence that we've had from our modelling exercises and relayed that to concerned residents. Despite that, I think
20 there are ongoing concerns from residents, I guess, due to the unknown nature of, you know, the - what may happen. However, yes, I think we have in the information that we've prepared and relayed during that consultation process, I think it has been successful.

25 MR PEARSON: Okay.

MR GUZOWSKI: Yes. So this is a map of the sensitive receivers that were identified during the process, both from community engagement, public meetings,
30 other meetings where we managed to collect information about the various neighbouring properties and other receivers within the vicinity, but it was also added to by, you know, specialist assessments including visual assessment and noise assessment. Those I touched upon, they've been various project changes to the site layout over time and they were influenced by both environmental factors and, I
35 guess, community factors.

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So as you will see in the far left, that was the original July 2017 footprint that we presented at the first community meeting shortly after the preliminary environmental assessment and as you will see, it's, you know, elongated north to south layout with a wing stretching to the west. Part of the information that we were able to gather
40 during that first consultation was, I guess, both from the visual point of view and also from a flood impact point of view. The site layout would be substantially improved if we moved the southernmost section north, so we decided after that to move that southern border of the site, so there was a kilometre from the road and the impact of that was that there was less visual amenity from Orange Grove Road. Another
45 anecdotal piece of evidence that we learnt at that community session that was later confirmed by our flood modelling was that early outbreaks of the floods from the Namoi River moved in a north westerly section across that southern part of the solar

farm. So based on that information we thought that we had greatly reduced the flood impact and I guess, the effect of the solar farm on any flood waters by moving it north. And so we've compacted – you can see by the footprint in April 2018 and September 2018 that the site has been compressed north to south.

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I think that also benefits the visual impact that the receivers from the north experience as well from the length of that and in the April 2018 footprint, we implemented some design changes to allow for flood waters to pass through the site and it was proposed that we would have gates along – sort of intervals along the fences so that in the case of a flood, they could be opened and pass flood waters through to reduce any impact that security fencing that had built up debris would have on diverting flood waters. And that was consulted with the community and then a decision was made to amend that design further and implement drop down fences as an alternative to passageways and the gates.

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So there has been 17 different site layouts that we've gone through and iterations during the process based on the consultation process and various design processes. So one of the main issues that came from the consultation process was the concern around the flooding and the main concern was the effect of the perimeter fencing when it became full of debris from the flood waters and what effect it would have in diverting flood waters and potentially having a larger impact on neighbouring properties and neighbouring households than if there was, you know, no solar farm and no fencing there. So we went through several rounds of flood modelling during the EIS phase, engagement phase and then also during the exhibition phase that was presented in our response to submissions.

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So there was an extra round of modelling that was included in that response to submission that wasn't included in the EIS that went to a more granular level of modelling and included more detail on the modelling and more accurate modelling than was presented in the EIS. Throughout that process we – I guess the fence configuration and the fence design was, I guess, at the top of mind and relevant to the process and we considered various different fencing configurations, including sacrificial fencing, farm fencing, drop down fencing, and during that process I guess it was balancing two things. It was the security aspect, because we're required by regulation to have a security fence around the perimeter of the solar farm and - - -

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MR HUTTON: So in that regard there's no option to not fence it.

MR GUZOWSKI: There's no option to not fence it and the standard security fencing is a six foot chain mesh fence with barbed wire and we were trying to balance that with the aim of having as little impact on flood waters as we could and not diverting flood waters to the point where, you know, residents and other adjoining land holders are negatively impacted. So as I touched on, one of the first changes we made was that we move the proposed development footprint north to minimise impact on the flooding through that first outbreak of flood waters, which travel in that north westerly direction from the Namoi River. We assessed different options, including installing gates every 100 metres along the perimeter and

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including 20 metre wide corridors running east, west where flood waters could pass through.

5 As I mentioned, we performed further flood modelling to support the response to
submissions report, which was more accurate and went into more granular detail and
in that response to submissions we've presented an option to include drop down
fencing at strategic locations around the perimeter and that solution, which includes
the drop down fencing, has been modelled and shown in that response to
10 submissions, including the effects on impacted residences. You know, the
percentage changes in flood waters during different floor events, including the one in
10, one in 100 and possible maximum flood and during that process we've
collaborated and consulted with an experience fencing contractor who has worked on
solar farms before, worked on drop down fencing designs before to design a
practicable, resilient, safe, secure and affordable solution.

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MR PEARSON: How long is the fence down for? So the floods come through - - -

MR GUZOWSKI: Yes.

20 MR PEARSON: - - - the water is received, but how long do you anticipate the
fencing will remain down?

MR GUZOWSKI: So depending on how long it takes for the flood waters to recede
and the access on site afterwards they would – you know, they would greatly impact
25 the ability to either erect or replace the fence.

MR PEARSON: Yes.

MR GUZOWSKI: Those grounds are known for becoming particularly muddy and
30 inaccessible in times of heavy rain fall and you know, I would imagine the same after
a flight event. So it would really depend on those things, but we would put on place
a management plan to, you know, get people on site to either erect or re-build the
perimeter fence as soon as possible.

35 MR PEARSON: So if you break it down into the two parts that you can and you
can't control.

MR GUZOWSKI: Yes.

40 MR PEARSON: So the part you can't control is the time it takes for you to re-gain
access to the site. The part that you can control is once you have re-gained access to
the site, how long would you anticipate that aspect of the work taking?

MR GUZOWSKI: It's hard to say and it depends on whether we would be erecting
45 or replacing the fence. The condition of the fence after the flight event, but we've
designed the fence so that it drops down and I will go through this in a later slide.
But if it's a case of you know, sections dropping down and the process being as

simple as, you know, re-erecting the fence and you know, putting supports back in, I think it would be a fairly fast process. If it was – if the fence condition was so bad that it needed replacing, we would need to, you know, organise the labour and the fencing contractors to come in and replace the fence. But I think - - -

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MR PEARSON: Just book in those for me, in terms of are we talking decades or days

10 MR GUZOWSKI: No, no. I would say a question of weeks. I guess the other relevant point is that to allay any safety concerns during that process we would power down and isolate the solar farm in that instance, so there wouldn't be any safety risks for public – for the public actually being able to access the site and the potential

15 MR HUTTON: I see. So you're proposing to power down the entire site when it's - - -

MR GUZOWSKI: Isolate the site. Yes.

20 MR HUTTON: What do you mean by that?

MR GUZOWSKI: Isolate the site so that - - -

25 MR PEARSON: No energy.

MR GUZOWSKI: Yes.

30 MR PEARSON: A person going on to the property could not electrocute themselves.

MR GUZOWSKI: Or implement - - -

MR HUTTON: This means that you won't - - -

35 MR GUZOWSKI: - - - other safety measures, like put in 24 hour, you know, security so that people can access the site.

40 MR HUTTON: I see. So it's possible you would run part of the site, but if one particular fence was unable to be repaired quickly you might have a – you might downer down that part of the site that's adjacent that fence. Is that - - -

MR GUZOWSKI: Yes. So we had put in security measures that could be either isolating the site or putting in – in addition to putting in security, you know - - -

45 MR PEARSON: Okay.

- MR GUZOWSKI: - - - and monitoring so that those safety risks of the public being able to enter and harm themselves would be allayed. So, as I mentioned earlier, during the – during consultation with DP&E after submission and in response to community submissions during the exhibition period, extra sections of drop-down fencing were implemented. And in terms of our proposed solutions – so the Department of Industry, Land and Water considers the project would have a negligible impact on the flow and velocity of flood waters based on our proposed solution.
- 5
- 10 So the next image is a map of a one-in-one-hundred year flood event. And then we also modelled the one-in-10-year flood event which shows, if you follow that bend on the south of the – in the Namoi River, that first outbreak of the flood waters run in a northwest direction and that's part of the anecdotal evidence that we received early in the consultation process that led us to – to change the site layout.
- 15 MR HUTTON: Sorry, Tony. The flow of water is from left to right.
- MR GUZOWSKI: Right to left.
- 20 MR HUTTON: Right to left.
- MR GUZOWSKI: Yes. So it's coming down the Namoi River from the Keepit Dam - - -
- 25 MR HUTTON: Yes.
- MR GUZOWSKI: - - - which is just northeast of what you can see in that image. It runs down that river and then, as you can see, the main breakout area is south of the solar farm site and that's a one-in-ten-year flood event that we're looking at.
- 30 MR PEARSON: On the slide before, the one-in-a-hundred - - -
- MR GUZOWSKI: Yes.
- 35 MR PEARSON: How does that – do you have one for the 1955 flood event?
- MR GUZOWSKI: So I might refer to Adam in this case but I believe the one-in-100 year that has been modelled is the closest that we have to a 1955 flood event.
- 40 MR BISHOP: Yes, so, Adam Bishop. What we've found through the hydrological review, I guess, and based on the local flood management plans it has been identified that the 1955 flood is roughly equivalent to what we would consider a one per cent or a one-in-a-hundred year flood. So in all of the modelling we present that 1955 flood as – we – as representative of how that would have occurred and being, I guess,
- 45 equivalent to the one-in-a-hundred-year flood.

And you'll see, you know, looking at that 100-year flood, obviously the pattern is very different to the 10-year flood. In fact, the river, it breaks out much further upstream so there's this additional breakout up near the town of Carroll and a flow path running along the – I guess, the northern part of the flood plain depicted by that
5 sort of heavy blue line there as well which is a bit of breakout channel.

And that reflects some of the anecdotal advice that we received throughout the course of consultation as well so some of the key messages were that, you know, around that breakout up there but particularly the – what the locals would refer to as
10 the kind of Orange Grove Road, high velocity breakout which is the area that runs in a north-westerly direction, as Nick mentioned, you know, through that southern part of the subject property as can be seen in that one-in-ten-year flood event model pattern.

15 MR KOPPERS: Adam, David Koppers here. What are the velocities like across the site

MR BISHOP: Okay. So we have presented those. So the existing scenario in the 1955 flood or the one-in-a-hundred-year flood – so this information is presented in
20 response to submissions but just looking at the visual here I have in front of me - they're not in the presentation – the key for the velocities ranges from zero to 2.2 metres per second, the deepest red being the 2.2 showing up in kind of the main channel. Across the site where we're looking at velocities, you know, basically sub one metre per second so less than – less than

25 MR HUTTON: Adam, can you just quote that figure number, please, if you don't mind. Is it on there? For reference?

MR BISHOP: We don't have a – well, yes, it's F006.
30

MR HUTTON: Thank you. In the response to submissions information?

MR BISHOP: Yes.

35 MR HUTTON: Just so we can get a reference point in the transcript.

MR BISHOP: That's all right.

40 MR HUTTON: Thank you.

MR GUZOWSKI: So move on to the proposed design solutions of the fencing design. As I mentioned, we wanted to balance something that maintained a level of safety that's required by regulation but also had the ability to allow the free flow of flood waters where it may risk in an adverse impact on surrounding neighbours,
45 landholders, on the – of the height and the velocity of flood waters. So we consulted this with a specialised fencing contractor and came up with the shown solution.

So the main functional element of the fencing design is the ability for the chain mesh part of the fence to fall away and drop down. albeit being secured by the bottom cable wire, so that any debris that builds up on the fence and is potentially blocking or re-diverting flood waters, doesn't have any negative impact of doing that because
5 the fencing clips specifically sacrifice which allows the fence to drop down and pass through.

MR HUTTON: So that's the pressure of the water results in the fence or is it - - -

10 MR GUZOWSKI: That's right.

MR HUTTON: - - - a man is running along point - - -

MR GUZOWSKI: It's the pressure of the water.

15

MR HUTTON: Yes.

MR GUZOWSKI: Yes. So it would be engineered so that obviously the pressure of those sacrificial fixings wouldn't allow anyone to, you know, break it with their
20 hands or - - -

MR HUTTON: Yes.

MR GUZOWSKI: - - - any, you know, typical, I guess, force – force of hand.
25 However, under the weight of flood waters that push against, you know, debris on that fence, those sacrificial fixings would fall away and allow flood waters to pass through. So I guess the main elements are the chain mesh fence is connected to the plain cable wire running across horizontally. That cable wire is attached to the posts via a sacrificial clip and then the bottom cable wire of that fence is a double twisted
30 cable wire which would be designed to hold.

And then as the flood water pressure builds it would, I guess, release under a certain pressure causing it to drop down and allow those flood waters to be passed through. Now, these sections of fence could be erected in 10 to 30 metre lengths where - you
35 know, there wouldn't be these huge stretches of fencing that would collapse separately but it would be shorter sections that would collapse – collapse together.

MR PEARSON: How do you receive notification of a fence collapsing? So if someone were to drive a car into it, is it visual inspection or is it – is there - - -
40

MR GUZOWSKI: Yes.

MR PEARSON: So it's just visual inspection.

45 MR GUZOWSKI: Yes. Other – and I guess, on that note, there will be workers who are regularly visiting the site for site operation and maintenance, who will be able to pick up on those things, also noting that the host landowner will continue to

farm the property and will be driving around the solar farm pretty regularly on his access roads. So he would also be able to pick up on those types of things.

5 MR PEARSON: What's the cost to fence the entire site?

MR GUZOWSKI: I think I would have to take that away on notice, but - - -

MR PEARSON: If you wouldn't mind.

10 MR GUZOWSKI: Yes.

MR PEARSON: Thank you.

15 MR GUZOWSKI: But the – yes. I will have to take that away on notice.

MR PEARSON: Yes.

MR GUZOWSKI: Yes.

20 MR PEARSON: Thank you.

MR HUTTON: Have you built this and kicked it around the workshop or something to have a look at the design?

25 MR GUZOWSKI: No.

MR HUTTON: It's just the design stage, isn't it?

30 MR GUZOWSKI: It's a concept design done in consultation with a specialised fencing contractor.

MR HUTTON: Yes.

35 MR GUZOWSKI: There's other elements to note – is the 150-mil gap at the bottom of the fence, and that would be to allow initial floodwaters, which very often carry a lot of the debris and the leaf debris that would build up on that chain mesh section of the fence to pass through in the initial flood – flood flows as a measure to try and minimise the amount of debris that's building up on the chain mesh section.

40 MR HUTTON: And there was less concern about the piles in the solar panels themselves being a capture point for debris.

MR GUZOWSKI: There was less concern. Yes. So the - - -

45 MR HUTTON: Yes. Was it considered, however, in the modelling?

MR GUZOWSKI: It was.

MR HUTTON: Yes.

MR GUZOWSKI: Yes.

5 MR KOPPERS: So, Nick, just a follow-on question. Do you have an indication, though, of what the weight needed, though, is to break the clips?

MR GUZOWSKI: So they would be engineered with those two things in mind, being safety – so we wouldn't want the weight to be able to be broken by, you know,
10 a force where it would, you know, create a safety issue: that someone could break into the solar farm too easily.

MR PEARSON: Like a kangaroo or - - -

15 MR GUZOWSKI: Kangaroo.

MR PEARSON: Yes.

MR HUTTON: Sheep.
20

MR GUZOWSKI: A child.

MR PEARSON: Sheep, yes.

25 MR GUZOWSKI: Even someone, you know, forcing a – trying to force it down. So we would want to maintain that security integrity, but we do want to engineer it in a way that it does break under substantial strain, which would be in a floodwater - - -

MR PEARSON: So what's the range then?
30

MR KOPPERS: It's not engineered to date then.

MR GUZOWSKI: It's not engineered to date, but those – yes. I guess the main engineering point would be those clips with the sacrificial fixings which, as a
35 concept, could be self-tapping screws that are engineered to give way under certain pressure, which can be engineered.

MR HUTTON: Okay.

40 MR GUZOWSKI: So this picture is showing the modelling with the fencing configuration, and the chart shows the afflux, so the change in depth, at various points around the solar farm perimeter and within. And I guess the aim of this image is to show the reduction in afflux as you move further away from the fence. So you will see that the change is quite substantial directly next to the fence where there may
45 be debris build-up and the floodwaters, you know, don't have free flow, but with the proposed solution that – and as you move further away from the fence, that afflux does reduce very quickly.

MR PEARSON: We had a question, actually, which the department couldn't answer. Probably more – I think it was more your question at least, but the red heat map above – to the left of 2(a) indicates the build-up of water, if we've read the diagram correctly, and so it's - - -

5

MR HUTTON: Deeper on the northern sides.

MR PEARSON: Yes. It's then counter-intuitive that with floodwaters sort of flowing from the bottom right to the top left, that that would be where the water would accumulate, and not on the other side, on 5(a) or 5(b). The accumulation seemed to be counterintuitive, but in that - - -

10

MR GUZOWSKI: Can't talk to that directly.

15 MR BISHOP: Yes.

MR GUZOWSKI: It's - - -

MR BISHOP: Yes. Adam Bishop. Without going into the fine detail of the model, which we don't have here, I suspect that's a result of maybe back eddies and things like that even occurring within the property. Also note that that heat map is representing percentage change in flood depth and to – you know, it may be that the flood depths at that location were, in fact, extremely small anyway. So a very small change in that very small flood depth, you know, may show up quite dramatically on that image, yet in real terms it's a very small change on a very small flood depth – well, sorry, a change on a very small flood depth.

20

25

MR PEARSON: Do you have this heat map then in metres or in an absolute scale?

30 MR BISHOP: Yes. We - - -

MR PEARSON: Could you - - -

35

MR BISHOP: We do have the actual flood depths.

MR PEARSON: Could you send that through.

40

MR BISHOP: Yes. That's – so this – this is with the fencing configuration 5 model - - -

MR PEARSON: Yes. Yes, please. Yes.

MR BISHOP: - - - which is the most recent model.

45 MR PEARSON: Yes.

MR BISHOP: Currently we have not gone through and modelled all scenarios for
- - -

MR PEARSON: That's fine. But - - -

5

MR BISHOP: - - - fencing configuration 5, but we do have it for the 1955 flood,
and – one second and I will find it.

MR HUTTON: So if I'm reading this right, the table identifies the actual depth in
10 metre change. So if we take, for example – I will pick an easy one.

MS TUOR: So the 5(b), 5(a) one.

MR HUTTON: Yes. Yes. So 5(a), it's – it's – with the fence, it's .81 metres, but
15 without the fence in 1995 would have been .72.

MR PEARSON: 72, yes.

MR BISHOP: Yes.

20

MR HUTTON: So that's the actual depth water - - -

MR BISHOP: That's the depth change.

25 MR HUTTON: Yes.

MR BISHOP: Yes. So – yes. That's the actual depth.

MR PEARSON: Yes yes.

30

MR BISHOP: Yes. That's right.

MR HUTTON: And then to the right of that then is the percentage change.

35 MR BISHOP: Correct. Yes.

MR HUTTON: Okay. Yes.

MR BISHOP: And so I think the key points from that is we – we really wanted to
40 understand how quickly that change – or that increase dissipates, if you like, away
from the fence.

MR HUTTON: Yes.

45 MR BISHOP: You know, intuitively there will be a – the greatest change occurs
right at the fence.

MR HUTTON: Yes.

MR BISHOP: And – and – and so that – you know – well, what happens, you know, 200 metres away and – yes, hence - - -

5

MR HUTTON: Yes. Okay.

MR BISHOP: - - - the production of the (a) versus (b) – those sites.

10 MR HUTTON: Yes.

MR BISHOP: So the actual flood depths under configuration 5 - - -

15 MR PEARSON: I think this – this chart is good enough, actually, for – for my purposes. I think – Andrew, so thank you. Thank you, Chair. The greatest depth seems to be at 5(a) and 5(b). There's a nine-centimetre increase.

MR HUTTON: Yes.

20 MR BISHOP: And in that heavy red section you mentioned, the actual flood depth at that location – you know, I don't have exact numbers in front of me, but the scale would suggest that is, you know, less than about, you know, point 5 metres. Well, actually, it's – yes, thereabouts – in the order of point 5 metres.

25 MR HUTTON: All right. Okay.

MR PEARSON: Thank you.

30 MR HUTTON: Just – just to say, we're probably looking at about 15 minutes or so to go, so just keep that in mind as you move through these last slides.

35 MR GUZOWSKI: Sure. Now, the next page, there's a – there's a chart that's aimed to show how the proposed development interacts with flood management plans, both the Carroll to Boggabri Flood Management Plan and the draft Flood Management Plan for Upper Namoi Valley Floodplain, and the main assessment criteria that we've assessed against is, I guess - are consistent with those concerns raised by residents, and those shown are the time for drainage from adjacent landholders to be completed. And you will see that the project's compliant maximum redistribution of peak flood flows onto adjacent properties, and you will see that the assessment shows that it's less than one per cent at the most impacted residential receiver.

45 The next assessment criteria is maximum flood height impact on adjacent properties, and our modelling shows that the maximum would be 14 millimetre at the eastern boundary of the sites at 1(a) in previous – at the previous slide. And then the next assessment criteria is maximum flood height impact on high-value infrastructure, which would be, for example, a resident and, with our proposed solution, the – the

assessment shows that there's a maximum two millimetre impact on the most impacted residential receiver, which is VP1. And then the maximum percentage increase in flow velocity, which is – the assessment shows that it's a maximum of less than one per cent at the eastern boundary of the site and maximum of four per cent at the north-western boundary of the site. And all of the – the project complies with all of these assessment criteria.

MS TUOR: And that's with the - - -

10 MR GUZOWSKI: With the proposed fencing configuration 5.

MR HUTTON: Fence option 5. Yes.

MR GUZOWSKI: Yes.

15

MR HUTTON: What about fencing configuration 1, which didn't have flood gate – what was the – the assessment against the criteria in that case, are you able to recall? Like, is it a – you know, was it 10 millimetres at the - - -

20 MR PEARSON: No, they – they were all compliant, so - - -

MR PEARSON: - - - so – so under 1 - - -

MR HUTTON: Under – under 5. I'm trying to understand the benefit of the – the options.

MR BISHOP: Under 1 – if I recall, the – the greatest impact, in terms of afflux, or flood depth change, was – remained sub-20 millimetres.

30 MR HUTTON: Right.

MS FACEY: 17 millimetres.

MR BISHOP: Right.

35

MR HUTTON: Yes. Okay.

MR BISHOP: And – and so, you know, at the time we felt that that was – you know, may have been an acceptable solution, but, nonetheless, based on the – the community feedback, we moved - - -

MR HUTTON: Yes. Thank you.

MR BISHOP: - - - explored that further in terms of improving the situation.

45

MR GUZOWSKI: Moving on, I would just like to quickly discuss the compatibility of the proposed land use, so the land has been confirmed as BSAL class 2. So we've

completed a land use conflict assessment. And, I guess, our – our main points are that the – the current host farmer has a – has a restricted water licence for the irrigated cultivation of his land, which is approximately 180 hectares of the total 795. So there's a – a remaining – a remaining area which he can continue to cultivate and use that – that water allocation for. We've designed the site layout in consultation with him, based on his experience of where the most valuable farming areas are and – and trying to avoid them.

10 The – the project has got a 25-year lifespan, after which – or at the point of decommissioning – so whether it's at the end of that 25 years or after the extended period -the decommissioning process would be able to return the land to a state which resembles the – you know, the current state, albeit with – with the substation that remains in place. The – the plan is to continue that land for agricultural purposes through the life of the solar farm and it's – it has been shown that grazing of sheep under – under solar panels in solar farms is – is very doable and quite successful. 15 And, I guess, economically, for – for the farmer, it provides a diversification of his income and allows him to, I guess, reallocate resources to - - -

MR PEARSON: How does that arrangement work? So, who bears the risks? Is there a risk sort of sharing agreement under the lease that – who controls that activity and who bears the risks of it? 20

MR GUZOWSKI: In – which risks in particular sorry?

25 MS TUOR: Sheep.

MR PEARSON: Well, say the sheep.

30 MR GUZOWSKI: The sheep.

MR PEARSON: You know, the sheep – sheep. I don't know, damage some cabling or - you know, or a sheep – a bunch of sheep die or – who controls the activity? Like, who controls sheep access to the site and - - -

35 MR GUZOWSKI: Yes. So that would be - - -

MR PEARSON: - - - who bears the risks of that activity?

40 MR GUZOWSKI: Yes. That would be managed by the solar farm owner. And the – I guess the management of those sheep, yes, are borne by the solar farm owner. There's no risk there passed on to the farmer.

MR PEARSON: Okay.

45 MR GUZOWSKI: I guess there would be a management plan in place and in the terms of how that farming operation goes.

MR PEARSON: And that will go into - you know, presumably, if the farmer needs to do something with the sheep, he or she can gain access to the site and - - -

5 MR GUZOWSKI: Yes. It will happen under a broader land management plan - - -

MR PEARSON: Okay.

10 MR GUZOWSKI: - - - for the purpose of - it's, I guess, a dual purpose with the sheep. It's one way of continuing agricultural use, but there needs to be groundcover underneath the panels.

MR PEARSON: Yes.

15 MR GUZOWSKI: That groundcover will be some kind of pasture. That pasture needs to be managed to manage fire risk, so that can be managed either through things like, you know, grazing sheep or, where needed, machinery can come in and slash that pasture and manage it that way. So all of those farming operations will come under a broader land management plan that will have, I guess, access - you know, will manage access and will manage how that farming operation is managed and performed.

MS TUOR: And is the pasture needed to limit dust? Is that the purpose of the pasture?

25 MR GUZOWSKI: I guess it's - it is a - yeah, it is a function of that groundcover as well, but also, I guess, to retain the soils and retain the healthiness of the soils underneath as well.

30 MS TUOR: So any water licence you obtain would need to take into account that aspect of watering the pasture.

35 MR GUZOWSKI: Yes. Yep. Moving on to the visual constraints, so the - I guess the reference points of the various receivers are on the map on the following page, if you would like to have a look, but the nearest sensitive receiver is 800 metres from the site, and that's VP1. The most visually impacted residents are those elevated to the north of the site, so the VP9, 13, 17 and 16. We've met with the landholders to discuss mitigation measures, including vegetation screening. What we're doing and what we've proposed is to leave the existing native vegetation that is currently present in clumps towards the north-west of the solar farm site, and then to
40 implement vegetation screening in between those clumps and then also around the north border of those - of the solar farm site, to minimise the visual impact to those affected receivers to the north.

45 MR PEARSON: What if VP1 changes his or her mind? What happens then?

MR GUZOWSKI: In terms of his decision to decline the visual screening?

MR PEARSON: Yes. So in 10 years' time he decides, actually – we get a flood, it's all - you know, the – it all seems okay and - - -

MR GUZOWSKI: Yes.

5

MR PEARSON: - - - he says, “Well, actually, I want the screening. I'm less concerned about the flood, I'm more concerned about the screening now”.

MR GUZOWSKI: I guess that would have to be done, you know, in consultation with the solar farm owner at the time. There's a landscape plan that has been proposed during evidence, because it has been informed by the consultation process. And that was included in the EIS. That's what we're, I guess, planning to implement at the - you know, from the start of the solar farm. Any changes through the life of the solar farm would have to be done in consultation with the solar farm owner at the time.

10
15

MS TUOR: So VP1s main concern was about the potential for flood – impact on flood behaviour. Is there any grounds to that concern from landscaping?

MR GUZOWSKI: Well, it's – I think their main concern is that if the – you know, if any vegetation, any shrubs or trees act as a barrier to the floodwaters similar to, you know, other fencing, would be – I guess they were of the mind that they would prefer for there to be no obstructions, you know, in that proposed area, rather than implement a visual screen of potentially fairly dense – dense shrub or tree plantings that could potentially act as a barrier. And I think it's mainly because their residence is in quite close proximity to the proposed vegetation screening. Have you got anything to add to that, Malinda, or - - -

20
25

MS FACEY: Yes. I was just going to say, so VP1 are about 800 metres from the site. And going on that diagram that we were looking at before with the changes in flood levels at point 4A and 4B, at 4A with the fence, it's 84 centimetres. And then, approximately 250 metres from there it goes down to 81 centimetres. And the normal flood depth is about 79 centimetres. So I would say that within your question about whether or not the screening would be a problem, we would probably say we wouldn't think so at this point in time, based on the evidence from the flood levelling.

30
35

MS TUOR: And where you are actually proposing the landscape screening to the north, it's not an issue in terms of – complete with flooding or - - -

40

MS FACEY: No. If you just go to the next slide, perhaps, so we're all looking at what you have there. So those residents, as you can see, VP9 and 13, are 1.8, 2 kilometres away from the actual site. The way the floodwater goes, it dissipates quite significantly when it gets up to those trees. What we're trying to do is connect those two corridors, or those two clumps of trees there you can see on the north side of the property, together, by planting that area out. And then, also, planting across and going down slightly south as well.

45

MR HUTTON: You're probably looking at about five more minutes and then some questions.

5 MR GUZOWSKI: Sure, yep. Just moving on. We've prepared some photo montages to show the effect or potential effect – visual effect of it being a solar farm. So that's the view from VP9 - - -

MR PEARSON: VP9, bottom right.

10 MR GUZOWSKI: - - - which is the - yeah, the closest visual receiver to the north.

MR PEARSON: So that white stuff is the solar farm, is it?

15 MR BISHOP: Is that the current view, Nick?

MR GUZOWSKI: That's the current view.

MR BISHOP: Yeah. So the next slide, I think, will show the solar farm.

20 MR GUZOWSKI: That's the current view. So that's showing the solar farm in white and then this is with some proposed vegetation screening as per the landscape plan.

25 MR PEARSON: What year is that vegetation screening?

MS FACEY: It's about three to five years down the track.

MR PEARSON: Three to five.

30 MS FACEY: Yep.

MR GUZOWSKI: And then just to compare those three views.

35 MS FACEY: So part of the conditions of consent are that we put in trees – mature trees or thereabouts.

MR PEARSON: Okay. That's great. Thank you.

40 MS FACEY: We do have other montages as well from other viewpoints, if you wanted to look at those.

MR PEARSON: That'd be great, actually. Yeah. I would appreciate that.

45 MR GUZOWSKI: So there was some noise modelling also completed, and the results show that there was no exceedance of noise management levels predicted, and then to summarise those environmental constraints in terms of biodiversity, there's no outstanding concerns, heritage, no outstanding concerns. We do have that

ongoing consultation with those Indigenous groups that contacted us during the exhibition period. There's been a bushfire assessment completed, and there's no outstanding concerns from a fire hazard perspective. There's no outstanding concerns from a soils perspective, groundwater perspective either. There was – in
5 terms of the lighting concerns, there was some concerns communicated that there might be some night lighting at the substation, remote – you know, sensor lighting, but I believe that they've been allayed. And then the traffic concerns are being managed and controlled through the consent conditions.

10 MR PEARSON: Could I ask on the traffic is there a reason why – if consent conditions 8D deals with minimising potential for conflict with school busses, do you anticipate that you may have a need to operate trucks particularly during construction during school bus hours, or – I guess what I'm getting at is there a reason why it's left open to you to operate heavy vehicles during school bus hours? Is there a - - -

15 MR GUZOWSKI: So it's - - -

MR PEARSON: Is there an expectation that you might need that, or is - - -

20 MR GUZOWSKI: So I think that there would be the potential for heavy truck movements particularly around the delivery of materials during construction hours which do include school bus hours. So that's been a pretty common concern of local residents, particularly those with young children that are traveling on those routes and – yeah. They've allayed concern that, you know, if that's – the – it would be a
25 potential danger risk for that school bus to be traveling at a time where there's, you know, a lot of heavy vehicle truck movements on those rides which, you know, are sometimes narrow, rural, you know, sealed and unsealed roads where there could be the potential for something to happen when, you know, passing each other, and we've committed to – yeah – control those heavy vehicle truck movements with
30 traffic management plans during those school bus hours.

MR PEARSON: Do you anticipate that your scheduling will mean that you will need to use that time that busses are on the road, or - - -

35 MR GUZOWSKI: Yes.

MR PEARSON: - - - is – you do anticipate needing that time.

40 MR GUZOWSKI: Yes. So in terms of progress since July 2018 – so we've responded to the – to DP&Es request for information, and we've refined the fencing design, and we've also been responding to local newspaper requests and keeping an open line of communication through consultation. So there were no issues identified with the draft conditions of consent that were proposed. We agree with them. And in terms of the community benefits – so just to summarise this - generating
45 employment. So 150 construction jobs at peak as well as the indirect supply chain of other jobs.

There'll be contract opportunities, and it'll support up to 10 operational jobs during the life of the plant. Also, you know, during the construction period, there'll be employee expenditure in the Gunnedah region, fuel, vehicle servicing, uniforms, accommodation, food. Where we can, we will be maximising the use of local
5 contractors and equipment hire, and, also, there'll be opportunities for increasing local skills and trades through the project experience and also like to note that we're in communication with the Gunnedah Local Council about a community solar program which would be a fund funded by the solar farm revenues to allocate towards community projects.

10

MR PEARSON: You just – you talk about local employment. I can't find it in the response to submissions, but there was a breakdown between the total workforce, some local, some within 100 kilometres and some out of the 100 kilometre radius. I can't remember what the numbers were, but have you done any more work around
15 identifying whether those that you've indicated could be sourced from within 100 kilometres – what work have you done around establishing that that workforce actually exists with those skills in that radius?

20

MR GUZOWSKI: I think Melinda's probably the best place to - - -

MS FACEY: Yeah. So we plan on using the Australian Industry Participation Plan and doing that which would give us more detail around that. Some of the skills will have to be imported in, like, the highly sort of electrical type skills. They're going to have to come outside the 100 kilometre range. In terms of the fencing contractors
25 and the labourers, those skills can be sourced within the 100 kilometres, but in terms of saying we've got 10 or 12 people and that kind of thing, now, we don't have that detail at the moment. However, as I said, we will be going through the Australian Industry Participation Plan, and part of that will be the Industry Capability Network or the ICN, and they will put – they will help us work out – work through those
30 issues as well.

MR PEARSON: Okay. Thank you.

35

MR HUTTON: All right. I'm just mindful of the time.

MR GUZOWSKI: That concludes the presentation.

MR HUTTON: Thank you. The – any of the Commissioners have a – any questions? I've got a couple. Just a couple of quick ones. Just with respect to the
40 network's capacity to take the energy – we're aware of other proposals in the region. What's the – what's your view on that current status of the – is it TransGrid network to take the energy from your facility and future facilities, and if there's needs for upgrades, any indications around timing and those sorts of things?

45 MR GUZOWSKI: So we've been, I guess, you know, working with TransGrid for a long time now doing – so it started from an initial capacity inquiry which led to us – that basically confirmed that we're able to start our GPS and network technical

studies. Through that process, we've been, I guess, submitting what's in progress with TransGrid for their review and the continuing message from TransGrid is that they do have the capacity to connect our solar farm. In terms of how that works with any future generators or any other solar farm projects within the region – so they
5 only take into consideration with their assessments of upcoming solar farms committed generators. So unless you're a committed generator on that list, then - - -

MR HUTTON: So what makes you a committer – consented is committed?

10 MR GUZOWSKI: Committed: when you reach a certain point in your planning and your connection - - -

MR HUTTON: Okay.

15 MR GUZOWSKI: - - - process, you become a committed generator - - -

MR HUTTON: Yes.

MR GUZOWSKI: - - - and that's a list that the AEMO – the Australian Energy
20 Market Operator - - -

MR HUTTON: Yes.

MR GUZOWSKI: - - - manages. So we've had continued representation from
25 TransGrid that our solar farm has capacity, and we'll be able to connect into that capacity, on that line.

MR PEARSON: Do you have an offtake agreement in place with TransGrid?

30 MR GUZOWSKI: No. No, the offtake agreement would likely be with – well, it wouldn't be with TransGrid, because they're - - -

MR PEARSON: They're just the - - -

35 MR GUZOWSKI: They're the - - -

MR PEARSON: Just – yes, yes.

MR GUZOWSKI: - - - infrastructure operator and - - -
40

MR PEARSON: Yes.

MR GUZOWSKI: - - - the manager of the transmission network. However, we are in discussions with various potential offtakers for the sale of that energy.
45

MR HUTTON: Part of our, I guess, ongoing process is a site inspection, coming up at some point in time. And the Commission has a guideline that enables us to – if we

identify key stakeholders, to invite them to participate in a site inspection. We're still working through that process, but I just wanted to see, do you have any objection to the Commission inviting other stakeholders, as we see fit, to join on a site inspection?

5

MR GUZOWSKI: No.

MR HUTTON: Thank you. Okay. They're probably all the questions I have. Annelise, unless you had - - -

10

MS TUOR: One of the matters that we brought up with our discussions with the Department was in relation to appendix 1 that would form part of any consent. So I think the concern was that at the moment, the developable area is shown in the green hatched line, but outside of that you have your APZ and your landscape area. So our understanding is that the site would be subdivided into three allotments, one of them being the developable area, one being the substation, and the remainder being the farming area.

15

So, as currently shown, the vegetation and the APZ would be outside the lot that would be the developable area, and therefore the responsibility for the APZ and the landscape area is unclear. I think the Department has indicated that they may be looking at getting a revised plan that perhaps makes that clearer. So I just wanted to, I suppose, sound out whether you had thought about that issue, or whether our understanding is correct.

20

25

MR GUZOWSKI: Yes, not in that level of detail, but I don't think we'd oppose any, you know, further obligation to manage the vegetation or the APZ.

MS TUOR: Well, presumably they should be within your lot. Whatever the developable area should include those, so it's clear - - -

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MR GUZOWSKI: Sure.

MS TUOR: - - - that it's part of the development lot. And just a minor point was that the legend says "Fence configuration 4W", whereas our understanding is, it should be 5.

35

MR GUZOWSKI: Five, yes.

MS TUOR: Yes. And then, I suppose, a follow-on question in relation to subdivision: we actually haven't got a plan of subdivision. And the consent approves subdivision, but it doesn't actually have any conditions that relate to subdivision. So in terms of avoiding any obstructions down the line, we just wanted to get a feeling for how you think the subdivision is going to work in terms of going to Council and getting a further approval, or – what your understanding of how subdivision is going to work.

45

MR GUZOWSKI: Yes, our understanding is that it would, I guess, be approved under the SSD process.

5 MS TUOR: “Approved” as in actually showing where the three lots are, in which case you would need a plan that showed that?

MR GUZOWSKI: Yes. Yes. Yes, yes.

10 MS FACEY: So we’ll take that on notice and prepare - - -

MR GUZOWSKI: We’ll take that on - - -

MS FACEY: - - - a plan.

15 MR GUZOWSKI: - - - notice, and prepare a plan.

MR PEARSON: I think the Department will come back to you, anyway - - -

20 MS FACEY: Yes.

MR PEARSON: - - - with the same questions.

MR GUZOWSKI: Yes.

25 MS FACEY: Yes, yes.

MR GUZOWSKI: Sure.

30 MS TUOR: Particularly as one of the lots is undersized, and at the moment the Department is saying that’s a prohibition, but – we understand it’s probably just a standard, but you wouldn’t want to have to do something later to - - -

MR GUZOWSKI: Yes. Thank you, yes.

35 MR HUTTON: No further questions? I think what I’ll do is, thank you all very much for your time and your presentation, and we really appreciate you coming and talking about your project, and answering questions only, so thank you very much.

40 MR GUZOWSKI: Thank you.

MR HUTTON: And on that note, I’ll close the meeting. Thank you.

MATTER ADJOURNED at 12.55 pm INDEFINITELY