



TRANSCRIPT OF MEETING

RE: THUNDERBOLT WIND FARM (SSD-10807896)

DEPARTMENT MEETING

PANEL: PROF NEAL MENZIES AM (CHAIR)
 DR BRONWYN EVANS AM
 MS SUELLEN FITZGERALD

OFFICE OF THE IPC: STEVE BARRY
 CALLUM FIRTH
 KYLIE DORSETT

DPHI
REPRESENTATIVES: CLAY PRESHAW
 NICOLE BREWER
 TATSIANA BANDARUK
 LAUREN CLEAR

LOCATION: ZOOM VIDEO CONFERENCE

DATE: 9:00AM – 10:00AM
 MONDAY, 4TH MARCH 2024

<THE MEETING COMMENCED

PROF NEAL MENZIES: All right. Yeah. Steve is just joining us. Hello Steve.

5 **MR STEVE BARRY:** Yeah, I am hello.

PROF MENZIES: Okay, so it looks as though we've got absolutely the full team, which is great. So, guys, I have a formal statement to read as chair, just to open up and to introduce our team. From that point, we'll hand over to you, the Department
10 to, you know, bring us up to speed with your thinking. And then we're looking forward to asking you some questions and just fleshing out some ideas that areas where we're concerned or don't understand or interested in how the Department's thinking about a particular set of questions. So my formal statement.

15 Before we begin, I'd like to acknowledge that I'm speaking to you from the land of the Turrbal and Jagera people here in the Brisbane River Valley. And I acknowledge the traditional owners of all of the countries from which we're virtually meeting today. And I pay my respects to their elders, past and present. Welcome to the meeting today to discuss Thunderbolt Wind Farm. Case SSD-10807896. I'm not
20 going to read that to anyone else, but I thought the Department would appreciate that. I'm sticking to the detail here, Clay. So, especially for you.

This is currently before the Commission for determination. The Applicant, Neoen Australia Proprietary Limited, proposes to develop 192-megawatt wind farm located
25 in the New England Renewable Energy Zone near Kentucky. The proposed project involves development of up to 32 wind turbines with a maximum tip height of 260m and associated ancillary infrastructure, including a new substation and switching station required to connect the trans grids existing 330 kilovolt line traversing the project site. My name is Neal Menzies.

30 I'm the chair of the Commission panel, and I'm joined by my fellow commissioners, Bronwyn Evans and Suellen Fitzgerald. We're also joined by Steve Barry, Callum Firth, Kylie Dorsett from the office of the Independent Planning Commission. In the interest of openness and transparency, and to ensure full capture of information,
35 today's meeting is being recorded and a complete transcript will be produced and made available on the commission's website. This meeting is one of the Commission's consideration in this matter, and will form one of several sources of information upon which the Commission will base its decision.

40 It's important for the commissioners to ask questions of attendees and to clarify issues wherever it's considered appropriate. If you're asked a question and are not in a position to answer, please feel free to take the question on notice and provide any additional information in writing which will then put up on our website. I request
45 that all members here today introduce themselves before speaking for the first time, and that all members ensure that they do not speak over the top of each other to ensure accuracy of the transcript. So we can now begin. Clay, I assume I'm handing over to you.

MS NICOLE BREWER: Thank you. My name's Nicole.

PROF MENZIES: Nicole. Okay. Thanks, Nicole.

5 **MS BREWER:** No worries. Good morning. My name is Nicole Brewer. I'm
Director, Energy Assessments. Excuse me a moment. So I'm just having some
technical difficulties. There we go. I'm here today with my colleagues - Elay
Preshaw, Executive Director, Energy Resource and Industry Assessments, Tatsiana
10 Bandaruk, Team Leader, and Lauren Clear, Senior Environmental Assessment
Officer. I'd like to acknowledge the traditional custodians of the land on which we
are joining today's meeting and pay my respects to their Elders, past and present, and
extend that respect to any Aboriginal and Torres Strait Islander people here today.

15 Thank you for the opportunity to present the Department's assessment of the
Thunderbolt Wind Farm. I'll firstly cover the strategic and regional context of the
project, and then describe the Department's engagement with the community and
feedback received. Before I move on to the key issues and other items noted in the
Commission's agenda, as well as some other issues the Department also considers
20 important for this project. I'd also like to use this opportunity to provide our
evaluation of the project, and in particular, how the issues associated with the project
can be resolved. The Department's recommended conditions and the key reasons for
recommendation to the Commission to approve the project.

25 I'd first like to make some general comments on the assessment of this project. I
think it's fair to say that the Applicant, in this instance, has worked to address the key
impacts of a proposed wind farm and is different to other projects the Department's
assessed recently. Neoen's progressed a suitable site with a transmission line within
the site and access directly off the New England Highway, and to mitigate impacts
30 early in the assessment process through design and mitigation, including securing
agreements during early consultation for the project, including the request for
Secretary's Environmental Assessment requirements, or SES.

35 Neoen had proposed a total of 70 turbines, including a second cluster of 33 turbines
south of the New England Highway. But in response to concerns raised by the
community at that time, Neoen revised the project to only include the turbine cluster
north of the highway within this application, and also reduce the number of turbines
within the northern cluster, which is the subject of this application from 37 to 32.
40 With these amendments, the project would generate 192MW and would have 32
turbines in total. The Department's recommended approval of this proposed layout.

45 Before I get into assessment issues, I think it's important to provide some strategic
context about wind farm development in New South Wales and the project's location.
This is a third wind farm project referred to the Commission since 2019, following
referrals of Bowmans Creek Wind Farm and Hills of Gold Wind Farm. The last wind
farm approved by the Commission was the Bowmans Creek Wind Farm in February
2024, and the two most recent wind farms approved by the Department are the Eungella
Wind Farm in May 2021, and the Yanco Delta Wind Farm in December 2023.

As you'd be aware, the energy policy context in Australia and New South Wales has significantly changed in recent years. The Commonwealth has set a pathway to net zero emissions by 2050, and affirmed Australia's commitment to meeting its revised 2030 target. The Australian Energy Market Operators 2022 Integrated System Plan, or ISP, states that without coal, a nine fold increase in large scale renewable energy generation is needed. This has been further reinforced in the 2024 draft ISP New South Wales legislation. The Climate Change Net Zero Future 2023 commits New South Wales to cutting greenhouse gas emissions and reaching net zero by 2050, and there are several New South Wales policies and plans supporting this aim.

These policies also identify renewable energy zones or reserves across New South Wales, which are aimed at encouraging investment in electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in New South Wales. This project as this project is located within arrays supporting infrastructure in the region surrounding the project, such as road upgrades to support the development of renewable energy generation, including wind farms, would be coordinated through by the New South Wales Government through Energy Co.

Given that all coal fired power plants in New South Wales are scheduled for closure in the next 20 years, the project would assist in providing large scale renewable energy generation to meet increased electricity demand. The Department considers the projects consistent with the relevant national, state and local policy documents which identify the need to diversify energy generation, mix and reduce carbon emission intensity of the grid while providing energy security and reliability. So to the side it's located approximately 47km north east of Tamworth in the New England region of New South Wales, within the New England REZ.

The site has good access to the electricity network via connection to an existing Trans grid 330 kilovolt transmission line that runs through the project site. The site is also suitable for a wind farm and has a high wind resource. The area surrounding the project site is less densely populated and has neighbours with large land holdings. I'd like to just briefly mention the Department's engagement on this project. The Department exhibited the EIS and received 100 unique submissions consisting of 82 objections, 14 in support and four comments. In regard to the location of the submissions, I'd like to note that the majority of submissions were received from people located more than ten kilometres from the site.

Only 16 submissions were received from people located within ten kilometres of the site, but most of those submissions did object to the project. Advice was received from 15 government agencies along with Uralla Shire, Tamworth Regional and Muswellbrook councils. None of the agencies or utility providers objected to the project except for one council. Uralla Shire Council. Muswellbrook Shire Council raised concerns about the project, specifically about the traffic route, which I'll touch on later in the presentation. I note the project is located within Uralla Shire and Tamworth Regional Local Government areas, but the vehicles associated with the project would travel through Muswellbrook Shire LGA, and the Department also visited the site twice in 2023 and met with landholders near the site.

The most common matters raised in public objections were biodiversity amenity impacts. That includes visual and noise. The consultation undertaken by Neoen, socioeconomic factors including property devaluation, the risk of bushfire site suitability, decommissioning and rehabilitation, and aviation submissions in support
5 raise the benefits to the local economy through the creation of local jobs, investment in the area and the benefits of renewable energy. I'm now going to talk about what we consider to be the three key issues for assessment, being energy security, biodiversity and visual amenity. Regarding energy security, the project would have a capacity of 192MW, which would generate enough energy to power about 99,000 homes.

10 This is consistent with a number of national and state policies, including the New South Wales Climate Change legislation for achieving net zero emissions by 2050. The project would play an important role in increasing renewable energy generation and capacity, and contributing to the transition to a cleaner energy system as the coal fired generators
15 retire. The project would connect to the existing 330 kilovolt transmission line within the site, which connects to the New South Wales east coast. Upper Hunter and Queensland has available network capacity, which reduces the need for additional transmission infrastructure outside the site and may allow the wind farm to generate renewable energy earlier than other projects that rely on new transmission lines to be
20 built.

There are a number of planned closures of coal fired power stations in the state in the next decade, and this project is an opportunity to contribute to the replacement of the
25 loss of energy generation across the state and utilise existing electricity network infrastructure are now to biodiversity. In New South Wales, the best wind resources are available at higher elevations, which is where the project is located. The elevation ranges between 870 and 1143m, and these areas are often associated with the least historical vegetation clearing, and for that reason, most wind farm projects cannot be
30 developed without some vegetation clearing.

The project was designed to avoid and minimise the impact on threatened species and communities within the site. Of the 5918-hectare project site and 568 hectare
development footprint, about 162 hectares of native vegetation would be cleared, half of
35 which are approximately 80 hectares, is derived native grassland. Approximately 15 hectares of the impacted vegetation comprises threatened ecological communities listed under the BC act and around 12 hectares of box-gum woodland, of which around seven and a half hectares is woodland in moderate to good and low class. Half a hectare is planted and around four hectares is derived native grassland.

40 The project would also impact around seven hectares of box-gum woodland listed under the EPBC act, of which around five hectares is woodland in moderate to good condition and one and a half hectares is the derived native grassland. Neoen is committed to minimise clearing of box-gum woodland and all other tax where feasible, through micro
45 siting and the detailed design stage. In regard to flora and fauna impacts, one threatened flora species is listed as vulnerable under the BC act, and the EPBC act would be impacted by the project, and that's about 0.8 hectares of austral toadflax that might be impacted, but it would be offset.

5 Around 80 hectares of koala habitat would also be impacted and would be offset, and the Department's assessment found that the project would be unlikely to significantly reduce the area of occupancy for koalas, and DCD concluded that impacts to koala habitat within the development footprint are largely fragmented patches located within a matrix of agricultural land. There are no large, intact areas of koala habitat proposed to be impacted, and the project will not cause any permanent barriers to koala movement within or through the development footprint.

10 In regard to bird and bat strike, bird and bat strike falls into the category of prescribed impacts in biodiversity assessments and prescribed impacts. The impacts on biodiversity values which are not related to or in addition to native vegetation clearing and habitat loss. There's no policy on how to calculate or quantitatively assess prescribed impacts relating to bird and bat strike, and there's no requirement to provide biodiversity offset credits. So the adopted approach to assessing burden by bat strike impacts for all wind farms in New South Wales is a combination of risk assessment followed by post determination adaptive management.

15 This adaptive management approach involves stringent requirements for baseline monitoring, ongoing monitoring of any strike during operation, and triggers for adaptive management measures to avoid or minimise impacts. The Applicants risk assessment applied a number of highly conservative assumptions based on an approach development developed for wind farm developments in Victoria. The risk assessment found that without any mitigation or adaptive management measures, six bird and bat species were at high risk and 12 species were at moderate risk of turbine strike. Additional assessment focusing on the turbines concluded that no turbines had a very high risk. Three turbines were high risk and 19 moderate risk and ten low risk.

25 They say they raise some concerns about bird and bat strike, and the Applicant proposed a range of additional monitoring and management measures for offsetting the impacts. Ne1 also proposed \$100,000 funding for research programme, which has been included in the recommended conditions. The Department's recommended conditions requiring the Applicant to carry out detailed monitoring of the bird and bat strike impacts of the project, and carry out adaptive management if the impacts are higher than predicted. In regard to the biodiversity offset, the impacts to native vegetation and species would generate approximately 4337 ecosystem credits and 3253 species credits.

35 The Department's recommended conditions requiring Neoen to retire the required biodiversity offset credits prior to carrying out any development that would directly or indirectly impact biodiversity values requiring offset. So overall, the Department considers that the biodiversity impacts of the project would not be significant subject to the implementation of the recommended conditions and by offsetting the residual biodiversity impacts of the project.

40 In regard to the visual assessment, the Department visited the site and several non-associated residences surrounding the project to assess the visual impacts.

The Visual Assessment Bulletin is the guideline that applies to this project, and the Department assessed the project against the performance objectives in that guideline, which considers visual magnitude, multiple wind turbine effects, landscape scenic integrity, key feature disruption, shadow flicker, blade glint, and aviation hazard lighting. I'd also like to acknowledge that since the seers were issued and prior to lodging the EIS, Neoen secured neighbour agreements with three landowners associated with ten dwellings located west of the project site.

Additionally, Neoen reduced the number of proposed turbines from 70, as proposed in the Sears request to 32 by removing the section of the project located south of the New England Highway and reducing the northern section from 37 to 32 turbines. So, starting with the assessment from public viewpoints, 23 public viewpoints such as roads and lookouts were assessed by Nielsen's visual consultant. Neoen's assessment summarised that whilst the project would become a visual feature of the area, it's unlikely to significantly impact the scenic values of the existing landscape features, and that the character of the areas in the vicinity of the project would remain intact.

Overall, the views of the project would be limited by distance, the intervening topography, and existing mature vegetation. The Departments considered that the visual performance objectives of the bulletin would be achieved at all public viewpoint locations. So now moving on to the assessment of visual impacts from private receivers that the Department has focused its assessment on the 27 Non-associated receivers located within 5.1km of a turbine. And that's the distance within the blue line that's described in the Visual Bulletin. Most dwellings would benefit from distance or intervening topography, and screening from existing mature vegetation that are between the viewpoints and the project, which are shown in the next slides.

The Department considered that the visual performance objectives are met at all receivers, including receivers, where, despite the close proximity of turbines to some receivers, and that such as 55, 308, 18 222 and 219, the existing vegetation and topographical features mean that the visual magnitude objectives are met as the projects located at least eight kilometres from most residences within the village of Kentucky, the Department considers that visual performance objectives would be met at these residences. In regard to aviation hazard lighting, the Civil Aviation Safety Authority, known as CASA, advised the projects considered a hazard to aviation safety and recommended that the wind farm is obstacle lit with steady medium intensity lighting.

So Neoen developed a night lighting plan, proposing to light 20 out of the 32 turbines, which Casa has reviewed and supported the Department's recommended conditions, requiring Neoen to install aviation hazard lighting in accordance with Casa recommendations and in a manner that minimises any adverse visual impacts. In regard to shadow flicker, the Department's recommended conditions requiring Neoen to ensure that shadow flicker from the turbines does not exceed 30 hours per annum at any non-associated residence.

The Department's also assessed the visual impacts of the project's ancillary infrastructure, and considers that that the project's ancillary infrastructure is unlikely to have a significant visual impact given its location away from non-associated receivers, the intervening topography and vegetation. So to give you a snapshot of the visual impacts included in the slides are photo montages from locations representing the visual assessment clusters considered in detail by the Department.

10 Firstly, towards the north of the project, we have two example locations receive a 221 at the top and receive a 55 at the bottom. The upper image shows a wireframe overlaid with vegetation at receiver 221. At this location, three turbines are located within 3.45km, which is the Black Line and the Bulletin, the closest of which, T23, is located 2.81km away. Given the distance between the project and this receiver and the intervening topography and the existing vegetation, the Department considers the visual performance objectives are met at this receiver.

15 The lower image shows a wireframe overlaid with vegetation point cloud from LIDAR data, and that's at receiver 55. At this receiver, five turbines are located within 3.45km, the closest of which, T28, is 2.01km away. But I think it's important to note that despite the close proximity of this receiver to the nearest turbine, the Department considers the existing vegetation and topographical features mean that the visual magnitude objectives are met at this receiver. So continuing on with views from the south of the project from receivers along the New England Highway.

25 One example location is shown at the top of this slide, being receiver 12. A number of turbines are visible from this receiver into, including two turbines within 3.45km. The closest turbine to 11 is located 3.12km away. Again, the Department's assessment found that despite the close proximity of turbines to this receiver and other receivers along the New England Highway, the existing vegetation and topographical features mean that the visual magnitude objectives are met. The lower image shows representative views from Kentucky Village looking west towards the project. Using a wireframe. The distance between this cluster and the project minimises visual impact, with most receivers in this cluster located at least eight kilometres away from a turbine, and so visual performance objectives are achieved at all receivers.

35 So in conclusion, the project would meet the visual performance objectives described in the Visual Assessment Bulletin as it would not dominate the existing visual catchment. The recommended conditions require Neoen to offer landscaping, landscaping and or vegetation screening to all non associated residences within 40 5.1km and implement all reasonable and feasible measures to minimise the impacts of the visual appearance of the development. Now talk about selected other matters that the Department considered during its assessment and that the Commission has identified in the agenda and give an overview of the adjustments to the project proposed by Neon and recommended by the Department.

45 Firstly to transport, there are slightly different transport routes for different types of traffic.

Vehicles transporting turbine blades and loads up to 5.2m in height would travel from the Port of Newcastle via the New England Highway, Scott Road, Murray Street, Maria Street and then back to the New England Highway to the projects site, as shown in the darker purple route on this figure. Vehicles transporting loads exceeding 5.2m in height, shown in pink in this slide would diverge from this route in order to bypass the town of Muswellbrook. These vehicles would travel via Bengalla Road, Wyong Road, Cayuga Road in the Main Street, Sturt Street and the Dartbrook Mine access road, where they would continue north to the project site, consistent with the route taken by the shorter vehicles.

All project related vehicles would access the project site via an existing intersection with the New England Highway, which would need to be upgraded to allow for the largest vehicle accessing to and from the site. Regarding construction traffic volumes, vehicle movements would peak at up to 188 light vehicles and 64 heavy vehicles per day over the 18 to 24 month construction period, and a maximum of six heavy vehicles requiring escort per day would be required for the delivery of wind turbine components to the site during construction.

To support the transport route for construction a schedule of road upgrades is included in the draft instrument, requiring Neoen to undertake these upgrades to the satisfaction of the relevant roads Authority, repair any damage attributable to the development, schedule heavy vehicle movements to avoid peak hour traffic, and prepare a comprehensive traffic management plan. The Department has engaged with Energy Co regarding proposed road upgrades from the Port of Newcastle and Bengalla Road in Muswellbrook Shire LGA, and some works relate to those required for the Central West REZ and additional works from Bengalla Road in Muswellbrook North would be required to facilitate transport to the New England REZ.

The Department considers that the proposed transport should, to the fullest extent possible, adhere to the road network upgrades proposed to be facilitated by Energy Co. So with the right upgrades, regular road maintenance, and implementation of a traffic management plan, the Department considers that the project would not result in an unacceptable impacts on capacity, efficiency or safety of the road network, subject to the implementation of the recommended conditions. Now to decommissioning and rehabilitation now an estimates that the operational life of this project is approximately 20 to 30, 25 to 30 years, but there is potential for it to operate for longer periods of time if turbines are upgraded over time, as permitted under the recommended conditions of consent.

The recommended conditions require the Applicant to rehabilitate the site in accordance with a number of objectives, which include that the site must be safe, stable and non-polluting. Above ground infrastructure access, roads and underground cabling must be removed unless the Planning Secretary agrees otherwise, and the land must be rehabilitated and restored to its pre-existing use.

- With the implementation of objective based conditions and the monitoring requirements, we feel that the project would, suitable would be suitably decommissioned at the end of the project life, and the site would be appropriately rehabilitated. In regard to decommissioning bonds, it is the New South Wales
- 5 Government policy that financial assurances should not be required by conditions of consent, and any financial assurances should be dealt with in commercial arrangements outside the planning system. Onto noise and vibration over the 12/18 to 24 month construction period.
- 10 Construction noise levels would exceed the recommended noise affected criteria of 45 DBA at six receivers, as specified under the EPA's Interim Construction Noise guideline, but noise levels would be well below the not highly noise affected criteria of 75 DBA at all six receivers during standard construction hours. Construction
- 15 traffic noise would comply with the New South Wales road noise policy at all receivers. I note that the Friends of Kentucky Special Interest Group commissioned a peer review of Neoen's Noise impact assessment. The Department acknowledges these the concerns raised in the review. However, the Department considers that the information provided by Neoen to be appropriate.
- 20 The Department's recommended conditions, restricting works to standard construction hours, with no works permitted on Sundays or New South Wales public holidays, and the recommended conditions do allow for works that are inaudible at non-associated receivers to occur outside of standard hours. The Department's also
- 25 recommended conditions requiring Neoen to apply mitigation measures to minimise noise during construction, and to monitor and minimise construction vibration. Both the Department and the Environment Protection Authority consider that the operational noise impacts of the project can comply with the requirements of the Department's noise bulletin, and the project would be subject to strict noise limits under an environment Protection licence.
- 30 On heritage. Firstly, on historic heritage. There are no non-Aboriginal heritage items listed on Commonwealth, national or state registers located within or surrounding the project area, and the Department satisfied there would be no impact to historic
- 35 heritage on Aboriginal heritage. Five Aboriginal heritage items of low significance would be impacted by the project, and Neoen have committed to salvaging and relocating all impacted Aboriginal heritage items to suitable alternative locations in consultation with Aboriginal stakeholders, and the Department has recommended a condition to enforce this. An additional four potential archaeological deposits, or also
- 40 known as pads, would be potentially affected by the project, which is where test excavations were undertaken.
- Two Pad locations were identified as continuing archaeological deposits and buried artefacts, and an exclusion area would be established around these locations, with
- 45 additional programs of salvage proposed if the disturbance cannot be avoided outside of the development corridor. Two Pad locations were identified as having low densities of artefact distribution, requiring no further assessment or mitigation.

So the Department's recommended a condition requiring Neoen to implement all reasonable and feasible measures to avoid or minimise harm to heritage sites and provide a detailed justification where impacts cannot be avoided. I'd also like to touch on some other issues we consider to be relevant in this project. The project would provide benefit to the community by providing approximately 285 construction jobs. Expenditure on accommodation and businesses in the local economy by workers goods and services.

Neoen committed to sourcing 135 of these construction jobs from the LGAs surrounding the project, and the Department's recommended a condition requiring Neoen to develop an accommodation and employment strategy and consultation with the relevant councils. In addition, Neoen would enter into a voluntary planning agreement with the councils, providing contributions of around \$3.4 million, adjusted to CPI to Tamworth Regional Council and \$2.2 million to Uralla Shire Council, with 33% of these contributions to be spent in and to the benefit of the immediate community. Contributions would be made either via an annual payment or upfront and annually.

While both councils accepted in principle the quantum of the Vpaf VPA offer, they did not accept the final terms of the timing of payments, the administrative mechanisms and the area of the spend. So the Departments recommended that if the VPA or Community Benefit scheme offered by Neoen is not accepted by either council and therefore unable to be executed. We consider that it was reasonable to include a condition that Neoen make an alternate monetary contribution. The alternate monetary contribution would be \$2.24 million to Tamworth Regional Council and \$1.49 million to Uralla Shire Council, and would be directed to infrastructure services and community projects in towns, villages and rural areas within each of the LGAs.

There would be broader benefits to the state through an injection of \$373 million in capital investment to the New South Wales economy. A number of submissions did raise concerns about the potential adverse impacts on property values, and the Department notes that the Land Environment Court has ruled on several occasions that the assessment of impacts of projects on individual property values is not generally a relevant consideration under the EPA act, unless the project would have a significant and widespread economic impacts in the locality, which is not the case in this instance. On adjustments to the project, in August 2023, following the EIS exhibition and considerations of submissions and agency advice, the application Applicant, Neoen made an amendment to the project which it presented in an amendment report.

The amendment involved the inclusion of an above ground pipeline, approximately one kilometre long and 150mm in diameter, to provide water supply during construction, and was proposed in response to concern with construction water availability raised in agency advice. The Department considered that no re exhibition was necessary due to the minor nature of the amendment.

And so in summary, the Department's undertaken a comprehensive assessment of the merits of the project. The wind farm development is a suitable land use for the site, as it has good wind resources and access to the existing electricity network.

5 Electricity generating works on the site are permissible with consent and the access to the existing electricity network may allow the wind farm to generate renewable energy earlier than other projects that rely on new transmission infrastructure. And it's within the New England Rez, where infrastructure in the region would be supported by the New South Wales Government.

10 Neoen reduced the number of proposed turbines and limited the impact the project, but the limited the project in this application to the north side of the New England Highway, significantly reducing the visual impacts to the landscape and for residents south of the New England Highway. The project would not significantly impact threatened species and ecological communities of the locality, and any residual
15 biodiversity impacts can be managed or mitigated by imposing appropriate conditions, such as the implementation of a bird and bat adaptive management plan and retiring the biodiversity offset credits.

20 The Department considers that the project's impacts can be readily managed through the recommended conditions of consent. Importantly, the project would assist in transitioning the energy sector, electricity and energy sector from coal and gas fired power stations to low emissions sources, and it's consistent with New South Wales policy. It would generate over 570,000 megawatt hours of clean electricity annually,
25 which is enough to power around 99,000 homes and save over 550,000 tonnes of greenhouse gas emissions per year.

The Department considers the project achieves an appropriate balance between maximising the efficiency of the wind resource development and minimising the potential impacts on surrounding land users and the environment through job
30 creation, creation and capital investment and a planning agreement or community benefit scheme with councils. The project would stimulate economic investment in renewable energy and provide flow on benefits to the local community. The Department's recommended conditions to manage the full range of impacts, including biodiversity and visual impacts. And on balance, the Department considers
35 that the project is in the public interest and is approvable subject to the recommended conditions of consent.

PROF MENZIES: Okay. Thank you very much, Nicole. So we've got a few
40 questions that we had wanted to put to you. I think Bronwyn is back with us. Yep. Great.

DR BRONWYN EVANS: And thank you. Yes.

PROF MENZIES: Yeah. Well, Bronwyn, since you're here. Over to you.
45

DR EVANS: Yeah. Thank you very much. Nicole and team, my main question related to the end of life of the project has been a lot of community concern.

And also just more broadly, what are the sorts of things that are in place for end of life, especially around recycling? And this will be, of course, more broad than just this particular project.

5 **MS BREWER:** Thanks, Commissioner. So there are a number of things that are in place. The Department's recommended outcomes focused conditions of consent. And these talk to the objectives that would need to be met for decommissioning and
10 rehabilitating the site. The recommended conditions also include waste management principles in order to encourage the waste management hierarchy of reduce, reuse and recycle. So therewith that those waste management principles combined with the decommissioning objectives are that are in the recommended conditions of consent, I guess are how the Department is proposing this be regulated.

15 **DR EVANS:** I just wondered on that if there was any more coordinated approach because some of these communities are quite remote and don't really have facilities to individually pick up the recycling. And if at a more coordinated approach across all of these projects something is envisaged.

20 **MS BREWER:** Look, I think there is work that I'm aware going in the background for the, for this type of considerations. I mean, what I would say is that the conditions of consent do allow for the projects to be upgraded as long as they remain within the parameters of the consent. And we are aware that it is something that the energy corporation in terms of that more holistic approach from the industry that Energy Corporation is looking into.

25 **PROF MENZIENS:** Nicole, let me just expand this. We, this is my concern about this project. Let me just stress this. We're as a commission, we're talking about these projects the solar ones, the wind ones. They are so very different in the sense that solar installations are, you know, while they cover a large area, each individual piece
30 is quite small. So, you know, you can see that in the future when we want to get rid of them it won't take a lot of equipment. You know, a few guys with trucks will be able to take it all away. Whereas wind farms are so much bigger infrastructure, it's going to mean rebuilding tower cranes and all sorts of things like that to pull them apart. And so the decision by government that there's no bond required or that
35 wouldn't be part of the government's activity, it might be a commercial arrangement with the landholders. It seems, you know, there's a disconnect here, Nicole. So could you flesh this out for us a little bit on how you've thought through? You know what the future might look like 30 years' time when this one comes to an end of life? How? How does it get pulled apart? You know, the various ones we're about to build
40 over the next year. How do they all get pulled apart?

MR CLAY PRESHAW: Perhaps I'll jump in there, if you don't mind. Nicole. Thanks, Clay. Because we're talking sort of big picture stuff here now-

45 **PROF MENZIENS:** Yeah.

MR PRESHAW: And the first thing I would say is that as a general comment, there's only so much that a, that a planning approval can do. And of course, anyone who's operating a project like this will be subject to all the laws of the land. So it sort of depends, I guess, as to what issues in particular you're concerned about. Is it
5 pollution? Is it construction hours? Is it ongoing visual changes? I'm not sure some of that will be covered by the consent. Particularly around the construction phases. That's something that we've absolutely considered as part of our assessment that there'll be an initial construction phase and then there'll be potentially construction
10 phases involved with upgrading.

So that's captured by our consent. But, you know, broader concerns around, how you know, private company chooses to manage their waste? And or whether there's concerns about pollution, potentially those sort of things, I think, start to go beyond all the hypothetical scenarios that are planning approval should cover. Now in terms
15 of our approach generally to rehabilitation, as it's explained quite well, I think in the new draft guidelines, which is that we are encouraging and enabling the host landowners to be able to enter into commercial arrangements with these operators to ensure that they have sufficient, I guess, coverage in the unlikely event that something goes wrong. And it's also explained, I think, in those draft guidelines that
20 the likelihood of that is relatively low in the case of wind and solar farms, where the capital investment is laid out early.

As in all at once at the beginning, which is quite different as you would know to a to a mine or a quarry, where capital needs to be injected along the way. And the
25 resource is, you know, the asset is not really very valuable for quite some time until they access the resource. So there are some, I guess, some differences in the way that we're approaching the rehabilitation requirements of wind farms, and even just the nature of the conversation around rehabilitation and decommissioning is very different, because that's probably an unlikely scenario for most of these projects,
30 whereas a finite resource, because we're talking about renewable resources here, obviously, a finite resource like a quarry or mine is obviously going to need to be closed, decommissioned and rehabilitated at some point, whereas that's actually not the intention of the state here with renewable projects.

35 We want these projects to exist in perpetuity. We want them to be upgraded. And and we don't want them to fall over and, and to run into these sorts of problems. But we do think there are some checks and balances in place in terms of the types of things that the hosts and the operators should be negotiating. And the other. The final point I'd make is that we don't have like we do in the case of the Mining Act and
40 Mines, we don't have separate legislation. That is, that has been enacted specifically to deal with potential closure and rehabilitation issues. So we don't have the benefit of that at this point in time and you probably have seen some of the discussions around the draft guidelines.

45 That is something that that might be considered going forward from a whole of New South Wales government depending on the risk that's associated with this, these issues at a bigger scale.

And I think that's where, you know, Nicole mentioned Energy Co certainly looking at this at a at a bigger level. But if there was to be some sort of legislative framework put in place that could be applied to, or it would be presumably applied to all wind and solar farms across the state, but that's obviously not something that we have the benefit of right now. So I know that's a lot of different thoughts, but that's, I guess, the big picture consideration from our point of view that, you know, we are just the planning authority and we are just trying to do what we can within the realms of a of a planning consent.

10 **PROF MENZIES:** Yeah, that was really very useful indeed. Clay, I think that there's a key point there that this is a renewable resource. So, you know, longevity. It is quite different to a mine site. Bronwyn, did you have anything else you wanted to follow up on?

15 **DR EVANS:** And. No, no, I think you've I think that context and the answer has been very helpful. So thank you.

PROF MENZIES: Right. Suellen?

20 **MS SUELLEN FITZGERALD:** Thanks, Neal. I had a couple of questions. One broad and one a bit more specific about the reports that are required of the project post-approval, I guess. There's a bird and bat adaptation plan and a traffic management plan and a couple of others. I'm interested to know from the Department's experience how confident you are that the risks posed by those particular issues say, for example, the prescribed impacts on birds and bats and so on. How confident that a management plan post-construction can actually ameliorate those risks from prior experience or other projects you've seen?

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30 I'm just thinking about the community's view of key issues like biodiversity and so on, being potentially left a bit unresolved by management plans. And I guess my further point on that, like that point at our last workshop about wanting to get consents where there wasn't a heavy burden on development to commence after the approval has been given. So I guess two points there about how confident you are that the plants of management are going to deal with potential, be able to mitigate some of the impacts post construction.

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40 **CLAY PRESHAW:** I think we've lost Nicole here, so I'll just jump in again. She's texting, saying she's trying to reconnect. But I'm happy to answer in relation to burn about generally we which is firstly. It's our understanding that the risk of significant impacts to birds and bats is actually very low. And that's based on the evidence we've seen to date in, in Victoria and in New South Wales, the existing wind farms. Obviously the way that risk assessments are set up is that without abatement, without or without mitigation, you end up with quite a high risk categorisation. But there are, as we've described, a number of ways in which you can mitigate the risk which eventually ends in curtailing or, you know, turning off the wind turbines at certain times. So we know that mitigation is highly effective at reducing impacts, if that's what you start to see over the life of the project.

So that's probably the first point that the risk is actually quite low when you factor in the ability to mitigate. So adaptive management which is something the terms we've used a lot in mining. I would argue with mining it's been probably not super effective because once you start having an impact with mines it's very hard to stop whereas
5 with turbines you have a lot of control over the turbines themselves. And you can you can do a lot of things to reduce the impacts. Now the second thing I'd say is, and I pick up on your point, unfortunately, all wind farms have this. This has been how we've managed wind farms across New South Wales throughout time.

10 And I understand that's the same in Victoria. And that does mean that we have post-approval burden. It's probably one area where we just accept that that's the case, because the information that we're gathering at other wind farms and the information you gather after an approval is given around the utilisation of birds and bats, is
15 actually really helpful in informing the specifics around the adaptive management that I was describing before. So this is probably the exception to the general rule that we're trying to do away with post-approval burden. This is one where it is quite helpful. And the third thing I'd say is in developing those bird and bat adaptive management plans, we do rely very heavily on experts and BCS is strongly involved in this. And they provide advice to us obviously before determination.

20 But they do get heavily involved afterwards in the development of those management plans. And they I would say they have been extremely strict on operators in terms of their comments to us and what we've adopted into previous bans. And maybe the final point I'd make is in relation to this particular set of draft
25 conditions we've given you, we've been even I guess we've gathered together all the different conditions that have been used before and tried to be as stringent as possible. To the point where with a few of the higher risk turbines, we specifically said they need to have particular thresholds involved at which adaptive management either cuts in or potentially through the, you know, the preparation of that ban.

30 It might be a decision that the operator decides not to construct those turbines if they're likely to be curtailed to an extent that doesn't suit their commercial needs. So, I mean, I guess in summary, the risk is low with mitigation because adaptive management is good. We do rely on bans. Unfortunately, that is a post-approval task.
35 That's very well, it's across all wind farms in New South Wales. But we can be strict and we have been strict in the past. And in terms of actual impacts, it's been very effective to implement adaptive management in that way.

40 **MS FITZGERALD:** Thanks, Clay. That's helpful to hear the Department's view of that. The other question I had, Neal, was, again on this Hudson's report and thinking ahead to the community meetings and the people we're going to be meeting up there. Would perhaps Nicole, you say a little bit more about your comment on the Hudson
45 The Noise report? Obviously the community's, you know, gone to the trouble to produce their own private report. So you said that you one noted their concerns and two, that the proponents are assessment was adequate. You could can you just expand a little bit on that so that so that we're confident around that, that report from the community?

MS BREWER: Thanks, Commissioner. So there's a couple of things that I'd say in response to that question. The Department reviewed the assessment with some technical noise advice as well. But the Environment Protection Authority is the authority that regulates noise, in particular from wind farms. And they'll do that through the environment protection license. So they've got experts within government who have that noise expertise and who review the review the modelling. And we felt that, I guess the, review perhaps that the community did didn't necessarily align with the experts within government's view of the, the modelling and the outputs of that data and the modelling outcomes.

So it's regulated through the Environmental Protection license such that modelling often needs to be quite conservative to show that they can meet the criteria that's set in the noise bulletin and that the Environment Protection License will provide the end point criteria that needs to be met at receivers. So I guess two, I suppose two things to take away from that is that we, with the experts and government felt that the assessment that was done was appropriate. And two, that it will be regulated through the Environment Protection License such that the noise at receivers will need to meet the criteria that's set in the noise bulletin.

So, you know, if for example, there was some kind of issue through the modelling, the endpoint is still that they need to meet the criteria at the receiver. And, and so I think that's kind of that added level. That is the, the hard and fast criteria that they need to meet. I mean, we obviously have to go through the process to understand that it's possible for them to meet that criteria. And we felt that the information they provided did give us that level of comfort. But they will have the criteria based in the guideline through their environment protection license.

MS FITZGERALD: That makes it clear. Terrific. Thanks, Neal. That's what(Indistinct 00:55:!2)

PROF MENZIES: Okay. We're almost at time. Commissioners, any other questions that we wanted to ask the Department? Bronwyn?

DR EVANS: No, I and this has been a really helpful just for setting that context as we really you know, think about what we've read and what we've researched so far. So thank you very much.

PROF MENZIES: Yeah. I've also found that really very useful. And I particularly wanted to thank you for the taking on the broader picture questions, which you know, well beyond the scope of what the Department is supposed to be doing, but helped us as commissioners to see where your role fits in a broader decision making process. So really very useful for us indeed. Thank you for your time presenting to us today. It's been useful input and indeed the reporting that the Department's provided with, provided us with very clear, really very useful and we're progressively working our way through all of that, all the companies material.

And of course, your set of conditions are also great starting point for us. So thank you very much for your work on this one.

5 **MS BREWER:** Thank you. Commissioners.

CLAY PRESHAW: Thanks, Commissioners.

DR EVANS: Thank you.

10 **PROF MENZIES:** Bye for now.

<THE MEETING CONCLUDED