T R A N S C R I P T

LEGISLATIVE COUNCIL ECONOMY AND INFRASTRUCTURE COMMITTEE

Inquiry into the Closure of the Hazelwood and Yallourn Power Stations

Melbourne—Wednesday, 16 February 2022

MEMBERS

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Mr Gordon Rich-Phillips
Ms Harriet Shing
Ms Kaushaliya Vaghela
Ms Sheena Watt

WITNESSES *(via videoconference)*

Ms Bess Clark, Chief Executive Officer, and

Mr Benjamin White, Executive Manager, Stakeholder, Land and Environment, Marinus Link Pty Ltd.

The CHAIR: The Economy and Infrastructure Committee public hearing for the Inquiry into the Closure of the Hazelwood and Yallourn Power Stations continues.

I wish to begin by acknowledging the traditional owners of the land, and I pay my respects to their elders past, present and emerging.

My name is Enver Erdogan, and I am Chair of the committee. I would also like to introduce my fellow committee members present here today: Ms Melina Bath, Ms Harriet Shing, Mrs Beverley McArthur and Mr Andy Meddick.

To witnesses appearing, all evidence taken is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the standing orders of the Legislative Council. Therefore the information you provide during this hearing is protected by law; however, any comment repeated outside the hearing may not be protected. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament.

All evidence is being recorded, and you will be provided with a proof version of the transcript following the hearing. Ultimately transcripts will be made public and put on the committee website.

We welcome your opening comments but ask that they be kept to a maximum of 10 minutes to ensure we have plenty of time for discussion. Before you begin, for the Hansard record, could you please introduce yourself, the organisation you are representing and your role—that would be appreciated—and then you can start your presentation. Over to you, Bess. Thank you.

Visual presentation.

Ms CLARK: Thank you. I am Bess Clark, CEO of Marinus Link Pty Ltd, and I am joined by my colleague Benjamin White, who is our Executive Manager, Stakeholder, Land and Environment. We would also like to pay our respects to the traditional owners of the lands on which we meet and acknowledge their elders.

I have a presentation to share, so hopefully we can make the technology work. We thought we would start by giving context about what Marinus Link is in the context of the closure of Hazelwood and Yallourn power stations. Marinus Link is a proposed 1500-megawatt high-voltage direct current—HVDC—electricity interconnector between Tasmania and Victoria, and 1500 megawatts is in the order of scale of the Yallourn or Hazelwood power stations, so it is a big electricity interconnector. It is obviously crossing Bass Strait, so it has got 250-odd kilometres of undersea cables, and in Victoria it has approxiately 90 kilometres of land cable, allof which is high-voltage direct current. In addition to power cables, it also provides telecommunications capacity, which helps the power system but also provides optical fibre capability across Bass Strait and into southern Gippsland. In Victoria it is proposed to connect to the 500 kV network near the Hazelwood terminal station in the Latrobe Valley.

We are currently in what we call our design and approvals phase, and that is the phase where we get all the land access and undertake all the necessary studies to formalise design and achieve planning and environmental approvals and undertake all the commercial work to establish income streams and procure the equipment et cetera. Ultimately that phase culminates, we hope, with a final investment decision because we have ticked all the boxes, we have got all the approvals and we have got a commercial business case established. Our target is that that is achieved by late 2024.

The link is being built in two stages of 750 megawatts each, and that is basically so the power system could cope if we lost one of those links at a time. The first stage will be constructed first, targeting being in service in the 2028–29 financial year, and the second, two years later. You can see some pretty pictures there to describe that. Just to put it geographically, you can just see the route across Bass Strait making its way up through southern Gippsland into the Latrobe Valley.

The project has been identified as a national priority. The Australian Energy Market Operator released a draft integrated system plan just before Christmas, and they saw that both stages of Marinus are what they call actionable, which means that it is in the members' interests and we should get on with it. In fact they said the link should be in service as early as possible because it provides material benefits to the national market. Infrastructure Australia includes the project as a high priority. Infrastructure Victoria has it in its 30-year strategy, and our company, Marinus Link Pty Ltd, is progressing the project with financial support from the commonwealth government and the Tasmanian government.

Obviously, it provides national benefits. As part of that it supports Victoria's energy transition, and that is really because Marinus Link is allowing energy exchange across Bass Strait and unlocking the existing hydro resources that Tasmania has and the capacity it has. So as coal-fired generation continues to retire, all the projections are that we will continue to replace that with variable renewables, wind and solar, and support that by storage—small-scale storage in homes and businesses and larger grid-scale storage and also deep storage. Pumped hydro will provide the deep storage that the national market and Victoria will need to basically get through things like days of cloud cover and low wind output so that we can keep lights on for customers in those instances.

The other thing that Marinus Link unlocks—and AEMO recognises this, is geographic diversity. We have different weather patterns across Australia, so by building diverse resources across the national market, customers will get a lower cost solution overall. We have also got different load profiles. Victoria is still a summer peaking state, and Tasmania, when it is cold and dark down in Hobart, is winter peaking. So we have got capacity available in those summer periods when Victoria needs it as well.

The upshot of all that is that Marinus Link puts downward pressure on energy prices in Victoria, and it does that because the alternative solutions would cost more, and it also does it because it helps to ensure the wholesale energy market players have competitive outcomes. To deliver the project, we are working with governments on a fair cost allocation model to make sure our benefits align with costs, and that work continues.

I guess a really important thing for the transition of the Latrobe Valley is the economic development that Marinus brings to the region, and we are working really hard to realise those opportunities. So, as you can see there on the slide, we had EY undertake modelling work. They estimated significant economic stimulus—$1.5 billion there—and 1400 jobs directly and indirectly at peak construction. We anticipate the construction will be in the order of six years across the two stages, so significant benefits to the economy during the construction phase and also the ongoing 40-year operation of the link.

So we are working hard to realise the local opportunities. We have joined things like the Industry Capability Network, Grow Gippsland and social traders. We are working with various organisations to explore those pathways for employment and workforce planning, and we see that there is that whole pipe line of impact to the community in the trades and services sector that we want to work to be ready for. We are also working as part of our engagement with communities on how we invest to support community outcomes and work with the community in terms of local benefit sharing schemes.

A project like this, with 90 kilometres of land route and obviously ocean route, requires significant engagement, and that engagement is well underway across the landowners, those who intend to host the link, with various levels of government, industry and community stakeholders. We have in the order of 90 directly impacted landowners on the proposed route, and we have engaged with all of those in the process of obtaining access along the route. We have established a stakeholder liaison group in Gippsland, and that has got a range of representatives of the community. We have also got a consumer reference group that is being established to look at the income-setting process for the link. And, COVID permitting, we have got a substantial program of events and information sessions planned for the year ahead.

In summary, our submission is highlighting that Marinus Link is good for electricity customers. It is good for the regional economy, including in Gippsland, and it is also good for the planet because Marinus Link is part of a cleaner energy solution for the nation, and it is taking in the order of 1 million petrol and diesel cars off the road. So it is good for customers, good for the regional economy and good for our planet. Thank you. That summarises our submission.

The CHAIR: Thank you, Bess. That was a fantastic presentation. It went very well and is on schedule. I might pass over to Ms Harriet Shing to ask the first question, then we will go to Ms Melina Bath, and then we will go to Mr Meddick and Mrs McArthur, in that order. So Ms Shing to ask the first couple of questions.

Ms SHING: Thank you very much, Chair, and thank you, Bess, and thank you, Ben, as well. It is good to see you here participating in this inquiry and again sharing the information and progress and updates about this enormous infrastructure project that brings together a number of different jurisdictions. At the outset, I have got a really, really dodgy, patchy internet connection. So I am going to be very quick, and if I drop out, please do continue with the answers to questions that I might put.

I would like to understand a little bit more about the work that you have done with community-based groups and stakeholder work, including Grow Gippsland, which is auspiced under the Latrobe Valley Authority. I know that the LVA has also been part of the work that has been done locally around the processes and procedures that are necessary to be undertaken prior to that last hurdle to get over in relation to this project. I would like you to take us through, though, what your engagement with the LVA has been and how this figures in the broader conversation about transition and development, which you have touched on in your presentation. So I will hand over to you, and I will mute myself and take myself off camera.

Ms CLARK: Thank you. Ben leads stakeholder engagement work, so I will ask him to respond to that. Thank you.

Ms SHING: Fantastic. Thanks, Ben.

Mr WHITE: Thank you, Harriet. Lovely to see you too. The question is very poignant, and we are working as readily as today in talking with the Latrobe Valley Authority and also with the Victorian Skills Authority, who in my understanding are formally going to invite us to be part of the skills and workforce development plans particularly for Gippsland going forward. So that is really welcomed, and we are thrilled to be part of that conversation. We have been liaising with the Latrobe Valley Authority right from the outset. I guess I fortunately had some background, having worked in the public service in Victoria for nearly 15 years in the very early stages and was part of that early genesis of the Latrobe Valley Authority, having had oversight of renewable energy when I was in government. So I have seen the value that they have sought to establish from the beginning, and we have engaged with them right from the beginning of this project.

It has always been very supportive, and it has also been very insightful in connecting us to groups like GROW Gippsland and have encouraged us to become a member of the Committee for Gippsland, which we are, and as Bess mentioned some other entities like the Social Traders network. So they are very supportive in that regard, and they are part of our Gippsland stakeholder liaison group that we are proud to have established and have just had our second meeting of. That is chaired by Jane Leslie, who some of you may know. She is a local Gippslander, having led some economic development work there locally, and is well regarded. She chairs our stakeholder liaison group, and Bess mentioned the broad membership of that. The LVA is part of it, so are the local councils, so are the Gunaikurnai Land and Waters Aboriginal Corporation, the catchment management authority and the trades union, so it is a very broad suite, and we get excellent value out of that committee.

I would have to say just in summary, Harriet, LVA are very much in the centre of our focus, but they have also been extremely supportive and faciliatory of our work.

Ms SHING: Would you say, then, it is a fair conclusion that the LVA has assisted through non-funded or program-specific avenues in the way in which they have been part of the conversation? That seems to be what has come out as a theme in the answer that you have just given, and it is a theme that emerges in a number of submissions and a lot of evidence that we have heard before this inquiry to date. If you could just expand a little bit on, when you say facilitative, what that means around perhaps navigating the Victorian jurisdiction within the Latrobe Valley region around transition and development as your project fits into it?

Mr WHITE: Sure, and through Bess I will answer this. We are seeing from the Latrobe Valley Authority a real, genuine want to connect us and make sure our interests, our priorities but also some of the risks and issues we face are not necessarily just in isolation, and that is something where we share the sentiment with the Latrobe Valley Authority. For Marinus Link, we do not necessarily see strength in just ploughing through individually as a project. We know there is a lot of activity and enormous opportunity through Gippsland. We want to make sure we can work together as best we can in partnership with other proponents and other

authorities to ensure there is a coordinated, streamlined and efficient effort here over the long term. The Latrobe Valley Authority have that front of mind, it is on the front of our minds and I think that is why we are working really closely together. And this opportunity for skills training transition—so, reskilling, retraining—and also looking at that workforce and supply chain gap analysis going forward is something that we are also doing as a small work program but that we need to connect and feed into the bigger effort across the Gippsland region.

Ms SHING: Thank you. That is very useful. With the last couple of moments that I have I want to understand the Gippsland connection. The Latrobe Valley Authority is staff by Gippslanders and operates for Gippslanders as the state government's hub, I suppose, for various work associated with transition and development. How does that fit particularly with meeting workforce demand, training and those other avenues that you have spoken about?

Mr WHITE: Do you want to start with that, Bess, and then I am happy to add?

Ms CLARK: I am happy, Ben. I think it is a continuation of your earlier answers.

Mr WHITE: Sure. So, Harriet, if I am understanding your question correctly, you are asking, with the Latrobe Valley Authority, is it around skills and workforce development? What is it?

Ms SHING: So skills and workforce development was the latter part of my question. The first bit is the by Gippslanders, for Gippslanders component of the LVA's work. So how does Marinus and the process of stakeholder engagement fit into that localised idea of engagement with the authority being very much about the valley region by and for Gippslanders?

Mr WHITE: Sure. So I guess the conversation we have had with the Latrobe Valley Authority is our intent to establish a direct presence in Gippsland as a company and as a project, and we know that is very important from a number of perspectives. It is our commitment to the community and it is our commitment to a partnership with an asset that has a nominal 40- to 50-year service life. So we know to do this properly we need to start early, and to have a successful relationship with the Gippsland community into the future we need to literally set up shop. So that is our intention, and the Latrobe Valley Authority are there and willing to support us in doing so.

We have also had discussions about local employment directly on the project. We have recently, just before Christmas, advertised quite a number of project staff positions right across the engagement spectrum that would be situated and based in Gippsland. We are fortunate to have picked up a few and filled a few of those roles, and we are looking to pursue the rest in the coming months. Also, when it comes to coming right back to skills development, local content, local participation, it is something—and Bess mentioned this too—that is our absolute focus. You would appreciate a project of this scale and nature is also part of the Australian industry participation plan, so at a national level we need to fit and meet obligations related to that. We are also very conscious of the policies to adhere to local procurement and local participation. That is to be very meaningful in doing that, and we are having those discussions. We know in the past there have been projects, in the feedback we got, that promised a lot of local jobs and local benefit, and then through delivery that was not necessarily matching those expectations. So we want to understand that. We want to be open and as true to what we think we can deliver on in that regard, but it all starts—

Ms SHING: But would you say that the LVA has had a beneficial role to play in that work, given the unique circumstances of the valley with transitional development, as far as your project is concerned?

Mr WHITE: Yes, they have given us some great insights and some useful data to start our early thinking with, and now, as I mentioned, through the LVA we are anticipating an invitation to join the skills authority initiative to look at that gap analysis.

Ms SHING: Fantastic. Thank you. I have used all my time and then some. Thanks, Chair.

The CHAIR: Thank you, Harriet. Thank you, Benjamin.

Mr WHITE: Thanks, Harriet.

The CHAIR: I might pass to Ms Bath to ask the next few questions. Ms Bath.

Ms BATH: Thank you, Chair, and thank you very much for coming before us today. We need good news stories, and Marinus Link is certainly a good news story. I would like to unpack the time lines and the jobs, because there are peak jobs. In your submission you talk about 1400 direct and indirect jobs during the peak period. I would like to know—and we will talk peak, and then I would also like ongoing once the project has completed, Marinus Link is there—how many ongoing jobs? Because peaking is one thing, and then people living in 10 years time working in Gippsland and working with Marinus Link is also another. You may need to take it on notice, but how many Tasmanian-based jobs in that peak, Victorian-based jobs in that peak, Gippsland jobs, Latrobe Valley jobs, Melbourne jobs and maybe even, you know, interstate and the other mainland states? That is a question I have. Once we have peaked, then if we go to, at best case, 2030, and at worst 2031, by your notes, how many ongoing jobs particularly in Gippsland, if I can be parochial, and the Latrobe Valley in the context of this inquiry? That is my kind of first round of questions. So can you unpack that for the committee?

Ms CLARK: Certainly. I will start. Marinus Link is part of a broader project known as Project Marinus. Marinus Link is the converter station to converter station, so the north-west of Tasmania up into the Latrobe Valley, and the converter stations convert the high voltage direct current into the alternating current, which is how transmission networks predominantly move energy in Australia. So in Tasmania we need to upgrade our backbone transmission because 1500 megawatts means a very big set of cables to plug into a power system that actually on average uses less than that, whereas we have worked with the AEMO in Victoria to plug into Hazelwood and the 500 kV network because it has got the capacity there, and obviously that goes straight into Melbourne, the large load centre.

We have got broadly similar numbers of direct to indirect jobs in Tasmania and Victoria across Project Marinus, but we have got a converter station on the coast of Tasmania and then the sea cable, and then actually most of our land-based assets are in Victoria, so for Marinus Link most of the job creation is in Victoria. We have obviously got work; we are already creating jobs. Ben and I are part of a team, Marinus Link Pty Ltd, and we have already have on the order of 60 team members and a range of contractors of various disciplines working with us. We have, for example, right now a marine survey live across Bass Strait. I think today it is still in Waratah Bay undertaking sampling.

Ms BATH: That is it there. It is happening in my scope behind my head.

The CHAIR: Yes, that is right.

Ms CLARK: I am actually in Melbourne today. I flew over Waratah Bay yesterday, and I was looking out and checking.

So I guess from the Marinus Link perspective a lot of those job creation is in Victoria, and lot of the ongoing jobs are also in Victoria, because what we are basically doing is creating two sets of cables, staged. And so we have to do civil works and install conduits to lay those cables, we have to put joints to connect the cables, we have to energise the cables through conditioning and then we have to build the converter stations, which I often describe as large Bunnings warehouses, at either end. There are a lot of very specialised power electronic equipment that goes there, and much of that will come from overseas because it is very specialised equipment that is not made in Australia; however, the civil construction—all of the site works, construction of the buildings et cetera—will use of lot of Australian and local workforce. Then, once the link is up and running, there will be staff that will continue to work at the converter station to monitor and manage that really specialised equipment. It has got all sorts of things like water cooling and protection schemes, so there is ongoing work to manage and maintain that, and then there will be periodic larger outages for maintenance. So there will be people who will come in over the life of the asset to maintain it and also to manage the cable route as well.

So that is the high-level narrative, and as you would appreciate, in a six-year construction period there will be many people in the community and a whole lot of flow-on stimulus, whether it is the local shops providing lunches, whether it is the accommodation providers, the medical providers, schools et cetera and that broader multiplier effect in the community where there is more income being spent in those regions. So that is the high-level narrative. I think, Ben, you may have to hand some of the more detailed numbers, if you want to talk to that, please.

Mr WHITE: Yes. Thanks, Bess, and just to add to your high level, we are often frank about the source both of the asset and also the labour and jobs component, and I think it is fair to say—Bess might like to touch on this in a further question—we are looking to tender internationally for this project. There is a handful of specialist firms that design, manufacture and supply the converter stations but also the high voltage direct current cabling. We just want to be clear that that is a very niche, specialised, highly sophisticated market that is not found in Australia, so that is a major component in terms of a supply chain that just does not exist here.

But the opportunity that does exist and where we do really want to work and make this meaningful, as positively impactful as we can, is through that construction phase. We will be seeing in that a range of construction job types as well as professional services. Those direct and indirect figures particularly in the Gippsland region,—if we break them down we are looking at around 220 direct jobs through peak construction over that six-year period. They are job numbers that will last for that six-year peak construction time frame, with around 1200 indirect jobs, and Bess described some of those. But to give you a bit more granularity, we are looking for electricians, plumbers, builders, carpenters, welders and metalworkers, and that is in addition to the labourers, machinery operators, drivers, truck drivers—you can imagine. And then there are professional services workforces, including engineers, project managers, cost estimators, construction, land use planning, lawyers, financiers, surveyors, safety and incident controllers—and the list goes on. So there are lots and lots and lots of both those direct employees over that period of time.

These are figures that we are starting to bed down and really firm up as we move. It is a delicate dance, I guess, where we are giving you these numbers in good faith from the work that we have done. Bess did mention our preliminary work at a high level was done by Ernst & Young, looking at those additional benefits both as investment and job types for a project of this scale over the geography. That was in addition to our cost-benefit analysis in terms of energy market benefits that EY also supported us with through our regulatory investment test for transmission. And we have recently commissioned SGS Economics, a Victorian-based firm, to help to break that analysis down into something more tangible.

Then into operation—remember too these are long-life service assets; this is 40 to 50 years. It may seem like a diminishment of figures that I am about to share, but bear in mind this is perhaps not all the figures either, so this is just for operating the asset itself. We are looking at 30 direct jobs and around 65 indirect jobs throughout the asset's service life . One thing I think is also worth bearing in mind is Marinus Link, together withthe north-west Tasmanian transmission developments, is an enabler to unlock an extraordinary level of renewable energy and storage development work which has a generational length growth profile. So Marinus Link in Victoria does not necessarily connect directly to some major project proposals like Star of the South or the Delburn wind farm in a direct sense, but in an indirect sense we are providing through Marinus Link firming services—the dispatchable on-demand capacity. When wind is not blowing or there is excess sun in Victoria we can export from Victoria to store in Tasmania and send it back at low cost on demand when Victorian customers need it. The proposition is we will not count the job numbers of other projects, but we are certainly there as an enabler to make those projects more bankable and more functional and high performing into the future.

Ms BATH: Beautiful. Thank you. Yes, you are the cable that connects it all together. You are not the manufacturer of the electricity in the first place, but you are the enabler.

First of all, if I can just make a pitch. I am really quite passionate about this. You mentioned that you would be tendering internationally, because there is not the capacity here within some of this specialised equipment. I am just challenging you on that one in terms of in Rosedale there is a cabling manufacturer that has moved down from Sydney. They are Bambach, as in B-A-M-B-A-C-H. They are looking to expand and grow, and that is a really good news story in Rosedale. I guess my challenge is that you continue to look into all facets of Gippsland to see where there is capacity and where there are industries willing to grow and expand. That is probably a comment.

Lastly, when we look at this, the first stage, cable 1, should be done on good terms in 2028. That is actually when the Yallourn power station will be closing—will shut. So there is going to be a tension there, and I guess I raise that because EnergyAustralia and Victoria will still need that power source until 2028. People are going to be employed; workers are employed at Yallourn until 2028. They may seem to miss the boat in terms of this construction, because they will be finishing when your first phase is finishing, but you have still got your second phase, hopefully completed by 2031. So I am asking about the tension there—a skilled workforce,

people wanting good jobs. Have you had any conversations with EnergyAustralia about supporting their transition of their workers yet? Is that something that is going to be on the radar? I mean, it is fantastic what you are saying and doing, but there are also timing issues. One large group of people are finishing their work and you are halfway through the Marinus project.

Ms CLARK: Thank you. I have couple of observations. There are a few tensions at play here and one is of course that as coal closes we need the dispatchable energy in its place to replace it, so a key driver is actually being ready to help fill that gap. So we just have to be conscious that there are a few different drivers at play in this context. We have engagement with EnergyAustralia and indeed a range of generators and we will continue to engage with them. And as Ben said, through the work we are doing with the Latrobe Valley Authority and others we are really trying to understand the best pathways and to get the best local outcomes. So we recognise that there is a whole lot of things in play here and will keep working to get the best outcome we can. However, Victoria and the national market may well need Marinus to be well on its way to actually make sure the lights stay on.

The CHAIR: Thank you for that. I might pass over to Mr Meddick and then Mrs McArthur. We might not get through all our questions today, so we will probably have some on notice. I have got a few on notice.

Mr MEDDICK: Thank you, Chair, and thank you both for presenting. It is a fantastic project and I am really impressed with the numbers. My questions were pretty much around what Ms Shing and Ms Bath have already covered. I had one of those amazing internet troubles right in the juicy part when you were talking about jobs, so it is great to have that clarified. So I suppose my one and only question then will be sort of a minor question that is associated with that. When you are at your peak and you have that 1400, that will obviously require at different stretches along the path various people staying in various places, and one of the problems that we are experiencing in rural areas is when projects are being built there is a lack of accommodation for workers. Is this something that you have been working, say, with the LVA on to make sure that when you need it there is accommodation available for those workers, because they will not necessarily all come from that particular area? There will be people coming from Melbourne et cetera in that source to have that 1400.

Ms CLARK: Yes. I mean, that is one of the key issues we can see in our supply chain, is how you accommodate this and how you plan for that and how you do it. It is an opportunity, for example, for some community benefit sharing potentially as well, about leaving some legacy accommodation, so they are the sorts of things that are part of our plans that we are exploring, even through things like our procurement processes with our large suppliers so that they are considering that in their offers to us. Ben, I do not know if there is anything further you want to add there?

Mr WHITE: Look, I would just add to the question, Andy, that the Latrobe Valley Authority is certainly aware. We know what we are likely to require and then flag that that looks like it could be a constraint. We have also had very productive discussions to recognise the two local councils, South Gippsland shire and Latrobe city, for also flagging this very early on in the process of our project and engagements going back three years now, so it is certainly something we are aware of. It is a challenge we have got in Tasmania as well, and as Bess said, it can actually be a great synergy. If we can work through, plan this, coordinate it well and leave a lasting legacy that benefits the community, that makes our job very successful in that regard.

There is a whole host of potential bottlenecks, we know, not only in accommodation but in road access and road upgrades. There is a range of challenges we have got. Just quickly if I could, through the Chair, Melina, your question too: I just want you to be aware that we have and are having very productive discussions with the Gippsland trades union. They are aware of the project. They support on all accounts our project, so we are facilitating as best we can some of those local content opportunities as well.

Ms BATH: Good. Thank you.

Mr MEDDICK: Thank you so much. Thank you, Chair.

The CHAIR: Thank you, Andy. Mrs McArthur, do you have a question for our guests?

Mrs McARTHUR: Yes. Thank you, Chair. I am interested in the ongoing jobs scenario: 30 direct, 60 indirect after 2030. I hope we will all be around then. Is that all you are going to find for us with this fabulous project?

Ms CLARK: I guess, as Ben outlined, there are a whole range of other jobs that are essentially supported by this project. For Australia's and Victoria's energy transition away from coal as it continues to retire we are going to have lots of wind and solar, but we are also going to need to be able to turn on energy when we need it, because neither of those are firm. They generate when it is windy or sunny. I guess we see a key job contribution is actually making—

Mrs McARTHUR: Keeping the lights on.

Ms CLARK: Yes, keeping the lights on, and actually making those other projects viable, because at some point there is no point building those projects if there is just too much of the variable energy and not enough of the storage and the firm dispatchable energy. So that is a key part of the ongoing jobs that Marinus Link stimulates. It is actually allowing that continual construction and development of the wind and solar projects. It works really in a complementary way, even with things like large-scale batteries. One of the other great things—

Mrs McARTHUR: We love them. They catch fire in my electorate. They are very good.

Ms CLARK: We like them too. I guess we have got a different product, which is that deep storage. I guess the other thing that Marinus Link is doing in its converter station design—so that is the bit that connects the high voltage direct current to the alternating current—is using technology. Some of you may be familiar with Basslink. It used the best conversion technology of its day when it was designed in the order of 20 years ago. Since that time power systems have continued to evolve. The world is seeing more and more wind and solar, and so the power system is changing and it is becoming a bit less stable. There is a lot less what we call inertia—a big, rotating mass that helps keep things in balance. So the converter stations we are using will actually also help to iron out some of the bumps and provide some support to the power system in this world where we have got far less inertia, and it has also been designed to be able to keep the lights on.

Mrs McARTHUR: Fantastic. That is all good. What I am also particularly interested in is your 500k, the underground power on land. You are obviously seeing that as completely viable instead of overhead transmission lines. Tell us the benefits and even the cost-benefit analysis of going underground versus overhead with 85-metre-high steel constructions.

Ms CLARK: It is really important to understand that what we are using is high voltage direct current underground cables, so HVDC. We have to use HVDC cables across Bass Strait. To move energy that distance across Bass Strait it is the only viable method. The challenge with HVDC is that you have to convert it, and converter stations are expensive. So it has to be a long distance to make it worthwhile in investing in the converter station, and for us, because we needed a converter station at either end, the choice was really where do we start and stop the land cable. So we worked with AEMO, and they recommended that we connect into that strong node at Hazelwood—

Mrs McARTHUR: Just stop there for a minute, Bess. Are you saying that AEMO recommended you go underground?

Ms CLARK: No, they recommended we connect into Hazelwood as a really strong node in the power system, and so we did the cost-benefit analysis to look at overhead versus underground, because as I am sure you are aware, overhead alternating current is orders of magnitude less expensive. There are a whole lot of trade-offs with overhead and underground—

Mrs McARTHUR: It loses power too, does not it, overhead compared to underground?

Ms CLARK: Well, 'it depends' is probably the answer to that. But I guess the key point is we are using HVDC, and we have to build converter stations across Bass Strait anyway. So as a general premise AC underground has some challenges and some costs, and undergrounding of itself has a whole lot of different impacts as well. So we have had to trade off overhead and underground considerations, but the fact we are going HVDC has meant that underground makes sense for our land route for Marinus Link.

Mrs McARTHUR: Well, that is fabulous. I love the idea of it being underground instead of having overhead constructions as big as the MCG lights. It all sounds much better. Now, tell me, have you—

The CHAIR: One final question, Mrs McArthur, just because our next witnesses are here. You can have one final question, and then we will conclude.

Mrs McARTHUR: One final question: how have you gone with the landholders whose land you will have to traverse?

Ms CLARK: Thank you. We have engaged with all the landowners on our proposed route, and we are in the process of negotiating access with those landowners. We have reached agreement with a number of those owners, and we continue to have discussions with others. It would be fair to say that there are some landowners who are not quite so supportive. Ben, I do not know if you would like to just provide a little bit more context on that, please.

Mr WHITE: Yes, sure. Thank you, Bev. Just building on Bess's comment, I guess we start with discussions with landowners around our plans. We're pretty concerted in making sure we had done a lot of background duediligence to identify a proposed route, so when we talked to landowners we were really clear about where we were seeking to go and then to negotiate from there. The first port of call is to seek access to conduct surveys, and it is through the survey work that we are able to better determine suitability of those parcels of land that are owned both privately and publicly along that route. Following survey activities and that data that comes from it,we can better bed down the route design, and then we would seek an agreement with landowners to negotiate an easement right into perpetuity. So that is our stepwise process, and in all of that there are discussions at the due time around compensation payments and the like. So we are open and doing things in the most fair and reasonable way we can. We have a team of qualified, experienced land agents based in Gippsland as our point of contact with landowners. Any issues get escalated in a process to us, and we have so far managed to accommodate a number of concerns along the route. But, as Bess mentioned, there are small pockets where some landowners really are at the very early stages of their contemplation of this, and some are refusing to engage with us, to be frank. That is normal and natural, and we will work through that.

Mrs McARTHUR: Could I quickly suggest, as another business adjunct to your operation, you could become an advisory service to AusNet, who are not travelling so well with the western Victoria transmission project. You could help them out with advice.

The CHAIR: Mrs McArthur, that project is not in the remit of this inquiry.

Ms CLARK: Nice try, Bev, nice try.

The CHAIR: On that note, I think we have gone a little bit over, but it has been a really productive discussion. I want to thank, on behalf of the committee, Marinus Link and especially Bess Clark, the CEO, and Benjamin White as well for your contributions and discussion and for trying to give us fulsome answers to our questions. I have a number of questions myself—actually, I have got three to ask you—but because of the time I might put them on notice. I will ask committee members to forward their questions to the secretariat, and we will send them all in one correspondence. If we could get a relatively prompt response, we would be very thankful for that.

Mrs McARTHUR: Chair, are we also able to ask Bess if she could provide the overhead presentation to us?

The CHAIR: Yes, as long as there are no commercial considerations. But if not, that would be fantastic if you could do that.

Ms CLARK: It has been provided, so we are certainly happy for you to distribute that. Thank you for the opportunity, and if anyone would like a further briefing on the project, we are always happy to provide those as well.

Mrs McARTHUR: Thank you.

The CHAIR: Thank you very much. It was very helpful, and like I said, going forward we will consider your input in our deliberations.

Witnesses withdrew.