

Date:	Start time:	Finish time:	Venue:	Meeting	
Thursday 26 November 2020	1pm	4.30pm	Powerlink's Virginia office and Teams	<b>no:</b> 19	
			(hybrid meeting)	19	
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Facilitator: Gerard Reilly (Powerlink)		Minutes: Tanya Fowler (Powerlink)			
In-person attendees:	Apologies:		Powerlink presenter	Powerlink presenters:	
Henry Gorniak (CS Energy)	David Hiette (BHP Billiton)		Paul Simshauser	Paul Simshauser	
Robyn Robinson (Council on the Ageing)	Bev Hughson (AER CCP)		Kevin Kehl	Kevin Kehl	
Georgina Davis (Queensland Farmers' Federation)	Slavko Jovanoski (AER)		Norike Ganhao		
Ian Christmas (Edify Energy)	Chris Evans (Powerlink)		lan Lowry		
Mark Grenning (Energy Users Association of Australia)			Matthew Myers		
Chris Hazzard (St Vincent de Paul Society)	Observers:		Dana Boxall		
John Gardner (CSIRO)	Natasha Patterson (CleanCo)		Greg Hesse		
Steven Jones (Energy Queensland)	Nicole Maguire (Powerlink)		Ben Wu		
	Jacinta Grech-Ho	olmes (Powerlink)			
Online attendees:	Rachael Lim (Po	werlink)			
Andrew Barger (Queensland Resources Council)	Andrew Banniste	r (Powerlink)			
Claire Hamilton (Shell)	Charlotte Guthlet	en (Powerlink)			
Dean Gannaway (Aurizon)	Kiara Bowles (Po				
Mark Henley (AER CCP)	Hannah Higgs (P	owerlink)			
David Prins (AER CCP)					
Warwick Anderson (AER)					
David Monk (AER)					
Toby Holder (AER)					
Vu Lam (AER)					
Belinda Sheldrick (AER)					
Anthony Weir (AER)					
Powerlink panel members:					
Jenny Harris					
Norike Ganhao					
Narelle Fortescue					
Geoff Burges					
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#### 1. Welcome and introductions

- Gerard Reilly, General Manager Communications

#### 2. Update from Revenue Proposal Reference Group (RPRG)

- Robyn Robinson, Customer Panel and RPRG member

#### Summary:

- 19 October 2020 attended Powerlink's 'deep dive' on insurance.
- 28 October eight Customer Panel members met exclusive of Powerlink representatives to discuss feedback on the Draft Revenue Proposal. The group shared productive discussions and appreciated the opportunity to openly consider their views on the draft document.
- The group will provide a formal submission as soon as possible to capture key feedback. High-level preliminary comments from the included:
  - o They were pleased that operating expenditure (opex) would be maintained at the same level.
  - o Acknowledgement the 12% price reduction is largely driven by external regulatory decisions.
  - o The large increase in capex is a concern and they were unsure about the treatment of contingent reinvestment projects.
  - More information is encouraged on the following topics: cost allocation methodology, benchmarking, application of the service target performance incentive scheme (STPIS), system strength and breadth of engagement.
- Once the Revenue Proposal is released in January 2021, the Customer Panel would like to arrange another separate meeting to provide joint feedback as appropriate.

#### 3. Update on Revenue Determination process

- Matthew Myers, Manager Revenue Reset
- Greg Hesse, Reset Stream Lead Capital Expenditure
- Dana Boxall, Reset Stream Lead Finance and Modelling
- Ben Wu, Manager Pricing and Billing

#### Summary:

- The time spent working alongside the Customer Panel, RPRG, Australian Energy Regulator (AER) and the Consumer Challenge Panel (CCP) throughout the Revenue Determination process has been invaluable. Powerlink has greatly appreciated everyone's input and commitment. Ongoing engagement has been instrumental in presenting customer views to the wider business, Executive Team and Board.
- There are 44 business days until the Revenue Proposal will be lodged.





- Update on key Revenue Proposal forecasts.
- Overview of feedback on the draft Revenue Proposal and how we will respond.
- Transmission pricing consultation and proposed pricing methodology update.
- Capex forecast was 12% higher than 2018-22 latest forecast now 2% lower than 2018-22.
- Overview of engagement processes.

#### Comments (C), questions (Q) and Powerlink response (R)

- Q. How has the engagement strategy used in this Revenue Determination process different to other reset periods? Were there RPRGs in place previously?
- R. I think as a business we have always tried to engage with our customers and we had ongoing direct engagement with our directly connected customers. For the previous reset period, for example, we had the Customer Panel and we were also trying to uplift our 'business as usual' engagement. Having the RPRG this time has allowed us to work more intensively so we could dive deeper into key topics of interest. This has been really useful and we didn't have this extra engagement tool during the last reset period. We tried to put information out during the last reset but we didn't prepare a Draft Revenue Proposal and release it publicly. Most of our information provided externally was not prepared with the same level of detail we've adopted this time around. I think last time we did three iterations of figures and put that out before we lodged our Revenue Proposal, whereas this is our fifth cut. I think there's been deeper engagement with the RPRG which has been a step-up compared to the previous Revenue Proposal.
- Q. How many submissions have you received previously?
- R. Seven is the number in my mind.
- Q. How much is the weighted average cost of capital (WACC) contributing to the \$46 million reduction?
- R. \$10 million.
- C. I don't think I've ever seen that particular combination in a proposal. I'm trying to think where else I have seen an initial proposal that has a reduction in capex and opex. It's really sinking in how great the work is that you have done.
- Q. There wasn't much augmentation last time. How have the augmentation replacement ratios gone?
- R. Essentially there's no augmentation, there's nothing that's fundamentally driven by a demand bracket. There's still that one connection extra point transformer at about \$2.5 million which is due to a growth in demand on the network. Most other things have stayed the same. It's primarily the reinvestment space where things have moved.

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- C. Reinvestment is still 81%.
- R. It's come down a little bit because that's where the movements were. I think in the draft it was a bit over 80%, it's now about 79% of the total. So, still a major component.
- Q. The standard thing that I ask about when I see organisations really pushing targets stretched targets of opex or capex is how confident are you about achieving this?
- R. Well certainly there is an incentive on us to not overspend. We think this is getting to the point where, in compliance with the rules, it represents an efficient level of capex in order to meet the needs of prescribed transmission services. If things come up, we will first look to prioritise where we make some savings, consider project scopes and also what can we defer reasonably for a period of time without exposing ourselves or our customers to excessive risk. Ultimately, if it is needed for a safe and reliable electricity supply, we would proceed with an investment. But that's a last resort, to overspend. Our first response is to explore what we can do within our means.
- R. We have had significant internal engagement on how things have been progressing. We have had quite a few meetings, including at an Executive Team level, on capex about what's a reasonable level to challenge ourselves. Actually thinking what else we could do, how far could we push this, what would be the consequences etc. So, I certainly do not want to underplay how much we have scrutinised our position in this space.
- Q. You've said we had 'constructive discomfort' on opex, do we have the same on capex now?
- R. Yes we do.
- C. I can vouch for that, yes.
- Q. Is this a paradigm change in a sense?
- R. We've been trying to shift our thinking for quite some time. I think Powerlink has always been at one end of the spectrum in terms of its Revenue Proposals and what it's done as a business. I have said to a few of you here on the panel that Powerlink is one of the very, very few network businesses in Australia that have never taken the AER to court to challenge on the merits of their decision. I think you can only count on one hand the number of network businesses who have not taken the AER to court. There have been times when we've received decisions from the AER and we have sat there as a management team to work through how we can deliver on that decision. I have been in Board meetings where the Board has said we need to get on with business. Challenging us to figure out how to live within this allowance. That's the context in which we're coming from. I think this is a continuation, but I think the customer voice is much louder at senior management and Board level than ever before.



- Q. Can I ask about the Ausgrid situation they made a big change in their capex and opex for the current regulatory period reflecting their relative position. They were placed with a constraint under the sale process about employment levels for five years beyond privatisation in New South Wales. They had a big issue about their EBA in seeking to achieve these reductions in capital and operating costs that they are committed to achieve. How do you see that playing out for Powerlink, within EBA requirements, so you to achieve the capex and opex reductions you're talking about here?
- R. I think that's probably more a question for opex rather than capex.
- R. EBAs do place constraints on us as a business. But from our perspective, we have reviewed whether we can live within that in terms of what we've asked for. There's obviously a range of commitments that have been made to our staff. There's nothing flagged in terms of our productivity initiatives or anything of that sort which is related to a reduction in head count or anything like that. We think we can find those efficiencies in other areas. On the capex side of things, we contract out a lot of activities rather than have people in-house do those, so the situation is different compared to opex.
- Q. I know you've got a lot of work just crunching the numbers for the next revenue determination period but how are things shaping up beyond 2027? I'm hearing that you're trying to be as efficient as possible but is there a risk that the culture now is deferring projects from that revenue determination period that would go over to the next one?
- R. We've been quite conscious not to defer expenditure unnecessarily. We are focused on appropriately scoping projects so that we've got an efficient level of reinvestment within this period. It's about what is prudent from an economic analysis point of view to get us to the next decision point. No, I don't think we're setting ourselves up to have a sudden rise in the next period because we've put all this work off just to make it look good in this period. That's not what we're about.
- C. We're also mindful that you have to get certain volumes of work done in terms of the assets that are involved. So, we'll bear in mind the net volumes as well, which is some of the work.
- R. On the prescribed network we've got something like 110 separate substation sites across the state. So, we can't just stop work for a couple of years because then it just obviously doesn't work. We are keeping our focus on a sensible program of work to ensure we maintain that level of service.
- C. The other important issue is that there's a reasonable chance that the WACC cycle will turn for the next period so then that's when I think it's great to get a change in approach to capex that embeds the culture that hopefully will continue in the next regulatory period and provide some ballpark against any change in the WACC cycle.



- Q. We've seen some recent developments in New South Wales and Victoria that have acknowledged the roadmaps that are emerging. In order to give effect to those, there obviously has to be transmission. How does Powerlink respond? Should there be a policy position in this region saying if we don't do "X, Y, Z"? What if you haven't taken that into account because you weren't aware of it? How is that managed in this sort of process?
- R. That's a whole other dimension regarding funding models for REZs because there's very different views. We'll be talking later today about REZs. At the moment there are different models being proposed by different parts of Australia it's a very interesting concept.
- Q. I got the impression from the AER they weren't looking favourably on contingent projects because they are outside the incentive regime. Has that discussion progressed?
- R. We've had discussion with the AER about the incentive regime and even just some of the legal technicalities and rules in defining the triggers. So we are aware of this. I think there's still some uncertainty around major flow paths where investment is required. We still think something is needed beyond just an ex-ante for a new proposal forecast, but we're still working out the best way to handle that. We understand that system strength is a concern, but we could only apply the rules as they are. So from that point of view, under the current rules if they continue to apply in to the future, if there is a new system strength shortfall declared, that becomes a potential pass-through under the rules as well.
- Q. Will we potentially see the published report on system strength matters in December 2020?
- R. They've sent us a Draft Rule Determination which would then become a Final Rule Determination some time towards the middle of next year, and then the implementation timeframe will be figured out. Scenario analysis was another one, particularly around those major flow paths, REZ developments and those sorts of things. We've still got to put a view forward in our Revenue Proposal. Where that's pertinent, some of that discussion will be in those asset management plans to be published as part of the Revenue Proposal.
- Q. Are you able to say how you think the levy will impact your proposal?
- R. I think that in terms of overall achievement, the key thing is that we wouldn't know where others would move. We have to look at it in the context of where we think others might go. Certainly, no real growth in the opex target, plus absorption of some of the things that might be coming in the next period. I would anticipate that our performance at least in the opex space would either maintain or improve slightly.
- C. It should improve because the opex model has the same output mix as in the outputs for the benchmarking model. So outputs indicate growth going forward and our opex benchmarking will improve relative to where we currently are.
- C. You've raised a second consideration for us that we're actually doing the work that needs to be done to maintain a service.



- Q. Have there been any instances where you enter into a network support arrangement and the AER doesn't approve it as a pass-through cost?
- R. When we sought a pass-through five years ago, we got a number that was a nominal [inaudible] allowance, and then we varied from that allowance to seek the pass-through from the AER.
- Q. Does the \$170 million impact from the draft inflation review outcome, if it comes in as the final, effectively reverse what percentage numbers you put up on the first slide?
- R. No, not all of it. It's lower by about 14%. For residential customers, it was a reduction of \$17. For small business, it would be about \$18.
- Q. On the RAB, I must be missing the key take-outs or key drivers?
- R. Our investments in the past demonstrate we're not spending dollar for dollar in our capex appreciating. So we're investing in what we need.
- R. We don't necessarily replace like-for-like. Sometimes we replace an asset because we want to make sure everything is still working, but if we can do something more innovative, or reconfigure, or do something different, that's usually our preferred option.
- C. As you say, the paradigm shifts, so when we were experiencing ongoing demand growth, the mindset was whatever we have today we will still need in the future and maybe a bit more. But as the network developed over time, we started with the 132kV network as demand kept growing, we overlayed it with 275kV over the top. Now when that 132kV comes to end of life, when there's very little or no demand growth, you're in a position to retire some of those 132kV assets without replacement because the 275kV has been built over the top of it and you can leave some gaps in the network.
- C. That's a good way of describing it, and it will continue to evolve in its own right.
- Q. What happens if the draft expected inflation decision comes through into CESS?
- R. I haven't done one but keeping in mind they adjusted the forecast during the month as well, so this is with CESS.

#### Pricing presentation

C. A summary from a non-technical perspective is that a lot of engagement went on around two years ago, a lot of engagement with directly connected customers. One material change to our methodology is that we're going to be implementing that over a transition mechanism to ensure we're not seeing any volatile movements for our customers. They can have a smoother transition into this new pricing methodology.



- R. I think it's important to say that the transition mechanism isn't there to blunt an intended pricing signal, it's to manage any unintended pricing signal. So we're making sure that what we're implementing aligns with the intent of the signal, so we're not varying from the intent from what the customers will actually see.
- Q. We've seen a number of forums use the concept of local market pricing. We've had the Coordination of Generation and Transmission Investment (COGATI) proposal put on the table. Even in the current despatch you see, you've worked out what the local market price is. Are we talking about the same thing here or is there a marked different between the current market local marginal prices proposed ones in COGATI? Are we talking about the same thing or just the same principle?
- R. In transmission pricing speak, locational charges refer to the truest component applicable at nodes on our network. So from that perspective it roughly aligns with the locational marginal pricing, but how we determine our locational price or our allocation of locational revenue is based on usage and cost supply load at each one of those points. So not from the generation side of locational marginal pricing. But similar principles, as in, we're finding a price at each point on our network.
- C. This complements the process that's been used over the last few years. It's been a terrific process and limits have been pushed around what change can be.

#### **Engagement presentation**

- Q. You haven't included some of the work that I know Powerlink's been leading on the Energy Charter, would you report that? I would say it's still relevant, but it's not necessarily a Powerlink engagement.
- R. It's an interesting point. At this stage we haven't put a direct reference to our Energy Charter activities in our Revenue Proposal chapter on engagement, not to say that we couldn't. It might be more relevant to appear as an appendix about what we've been doing. In our Energy Charter Disclosure Statement, we actually put a big focus on our engagement approach for our Revenue Determination, because affordability is obviously a key principle for the Energy Charter, and we believe that one of the best ways of living the values of the charter is to undertake really meaningful engagement with our customers as we prepare our Revenue Proposal. It's a 'one in a five-year' opportunity to really shape the pricing and affordability of energy for the next regulatory period.
- Q. What is people's reaction to the stakeholder engagement map?
- C. My three-way test is: what was tried, what was heard and what was applied. I think a bit more explanation around what's been tried is really important. So engagement isn't necessarily just about the successes. That map certainly shows a better geographic spread of engagement than I had previously understood.

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- C. I was surprised when I realised that you had that level of engagement as I hadn't gotten that feeling from our observation of the sessions we've been at, so that was really good. I also agree it's worth displaying your attempts to engage as well. Although, if trying doesn't succeed, one then has to ask why?
- C. Looking at the map, I would ink your infrastructure a bit more firmly so people who don't know the Powerlink network won't just think you're hugging the coast and not the rest of Queensland. If you bold your infrastructure lines a bit more, it makes it really clear that you've consulted across the length and breadth of your kit.
- C. I've made a number of approaches to our members across the state. I did get a couple of members to engage in a meeting that we had on pricing, but generally they say, well that's why I'm a member of the EUAA. We have confidence in you to represent our interests.
- Q. It is not clear to me how the AER will look at this framework and then look at your proposal and make a systematic judgement. This is a list of things that ought to have happened and you can write a description that says we did things 'this way'. I don't see how they're going to evaluate the accuracy of your information against this claim.
- C. How the AER evaluates consumer engagement is always a difficult issue, and it's not something that you can come to with a clean set of objective criteria and precisely measure performance against those criteria. What the AER has done is list the sorts of things that we would be looking to see in a successful consumer engagement program. For example, there is an item which talks about the sincerity or genuineness of the engagement that's taken place. So to give you an example of that, we see across regulated businesses, a range of approaches to consumer engagement. It's really about when the business is talking to its customers and stakeholders, is its approach something along the lines of has the business made up its mind what we want out of this proposal and to see if we can find support for that? Now, we would say that is not a sincere and genuine approach. Versus the approach which we see from some businesses, which is, let's go out and genuinely hear from our consumers about what it is that they want and then we will go back and build that into the proposal. Now as I say, that's not something that you can test objectively, but it is very evident early-on when you see the activity taking place, about which category it falls into. There's a continuum there so you're not looking at one end versus another. What I would say is that on that sort of criteria, looking in from the outside, it is really clear the approach that has been taken to engagement, and we are able to get support for the proposal from the people that have been involved in the engagement. Sometimes we will hear from people who have been consulted, and they will say they feel like they were led to an answer, and that's a clear indication there's been a problem with the engagement. Then other times we hear from people who say, we went along, we expressed our views, we saw how they were taken into account. So that's a bit of a long-winded answer to say there is some subjectivity around this issue, but there is a range of evidence that we look
- Q. I assume in previous submissions, this component wasn't included?
- R. No, we haven't done this for our previous Revenue Proposal and I'm not sure if there's been other network business that have.



- C. Some of the feedback from the Customer Panel has been incorporated into the slides there. That to me is evidence this is what we heard, this is what we did, so to me that's a great starting point. I think this is an exploratory journey for us here.
- C. AGN is probably the only other network business that's specifically aimed to lodge a proposal that's capable of acceptance.
- C. Our Consumer Challenge Panel (CCP) submissions offer a slightly different perspective on acceptance from the customer. Our questions are: were you personally involved? Have you been developing this proposal? Do you think your opinions are reflected? Whereas the CCP is saying we observed these forums and from our perspective, the views expressed by the participants have been reflected.
- C. Just thinking it through, I think this is probably another area where it would be helpful to have a 'panel only' discussion. My initial thoughts are that a letter signed by Customer Panel members is quite difficult. Not impossible, but doing so would mean we are signing on behalf of our organisations. That means the organisation has to be comfortable signing on that. There's some of us on the panel that may find this straightforward but for others that could be quite difficult. In terms of doing something prior to lodgement, that's something we could consider and see if we could analyse the aspects of the requirements that relate to engagement. But some of this information won't come to light until the Revenue Proposal is actually published. We won't know until we see it. So perhaps we could do some re-thinking before lodgement.
- C. Just saying 'capable of acceptance' is a big initial threshold. Maybe a statement that's more along the lines of 'our customers don't outright reject the proposal' could be a better starting point.
- R. I think what would be really useful to see is the panel and CCP's criteria. And the AER will no doubt have their own. It would be really useful to be able to compare and contrast all of those. Powerlink isn't expecting that the panel would make commentary on areas outside of their expertise. So please don't think that we're trying to push you to comment on something that you wouldn't be comfortable commenting on. But that overall view from those three groups would help us to understand how well we've gone and also for the AER in terms of when it's making decisions.
- C. Putting my CCP24 hat back on, I think we sent you the submission that we put into the AER on 6 October, on the AGM. Appendix 2 examined a range of seven things and then we had an attempt at the threshold and application. So it's not just saying what those examples are but trying to understand what the threshold is.
- C. Ultimately what we're doing here is making assessment about a proposal which is in the long-term interest of consumers. We think that consumers are uniquely placed to speak to their own interests and so we would welcome any views that the Customer Panel would like to make. We think that would be helpful for our consideration. It will certainly be something that we'll be asking the CCP to do and to provide us with their views on the engagement that has taken place. I think it would be a good opportunity for you to get together and have a talk about the engagement that's taken place and be comfortable to take that as far or as little as you feel is appropriate.



- C. We could reflect on the matrix to the framework in that this is the first time it's been developed and published by the AER. I think we should be, in some ways, considering this as a first cut. It's a draft. It's not going to be the final version. So part of this process is to check are these the right issues? Are there others that are not included in here? Should we be looking at this slightly differently? We don't necessarily want to feel constrained by what's shown in this table.
- R. As part of your phone call, could you see if there are other criteria or things we need to include in there that would give you more comfort?
- C. I think the question really is is the panel happy with that level of engagement more so than is the proposal capable of acceptance?
- R. Capable of acceptance is our primary objective. We workshopped that at a co-design level and this has been our focus. But there is a practical element to it too regarding how much engagement we've had before we lodge. The AER has seen everything we've put out for customer consideration. We've done some deep dives already. The AER has been helpful in sharing some of its models with us. We share our models with the AER, consultancy reports etc. So as a result of this deeper, wider engagement before we lodge, we hope to experience a different type of interrogation on our proposal.

#### Actions:

- > Powerlink to circulate the HoustonKemp benchmarking report to the Customer Panel when it becomes available.
- Customer Panel to meet (without Powerlink representation) to further discuss 'capable of acceptance' criteria for the Revenue Proposal.
- > Powerlink to update formatting of the Revenue Proposal stakeholder engagement map of Queensland, to clearly emphasise transmission network infrastructure and enhance readability.

#### 4. Powerlink Strategy 2021 onwards

- Kevin Kehl, Executive General Manager Corporate Development
- Norike Ganhao, General Manager Strategy
- Ian Lowry, General Manager Energy Markets

#### Summary:

- Transformational energy system
- Integrated electricity pathways
- Strategy development five-year process
- Network Vision
- Queensland Renewable Energy Zones
- System strength and network constraints



#### Comments (C), questions (Q) and Powerlink response (R)

- Q. How do you contemplate a potential inconsistency of government policy that supports further expansion of rooftop solar if that's not the most efficient way? You've got expensive rooftop solar that's politically popular pushing out cheap large-scale solar.
- R. I think that's exactly the issue. There's been significant effort in the last 12 months, trying to get a level of alignment about what the problem is and what the necessary responses are. It's actually a really challenging policy issue for government. We are advising that there's a combination of policy and technology responses required. A whole range of potential options are part of our strategy development discussions.
- Q. I see you're looking at the best value interests of the customer. How quickly can you move with that transformation? How can you keep pace and also align yourself with the technology developments that might fill some of the gaps as well as work within State and Federal Government policy?
- R. In order to best respond, we need to inform the market and the policy makers. For instance, we've been working on the rooftop solar issue for 12-18 months to gain trust. This is about building the credibility of market, spending time modelling, looking at the assessments and being part of discussions on the future decisions being made and being able to make our own investments too. The impact of the work we're doing is outside of the current regulatory period so we have an opportunity for timely and broader influence.
- Q. One of the issues that's playing a role in other jurisdictions is the demise of what we call fossil gas, phasing out natural gas and replacing it with either electrification or renewable gas. Is this a significant impact in Queensland for home, manufacturing, industrial applications?
- C. If the Queensland Government has an aspirational but not a legislative target of net zero emissions by 2050, what does that mean for investment in gas if hydrogen is not economic?
- R. We're yet to model that.
- Q. Smelters arrived with the incentive of cheap energy costs. What will come in to replace it? Is it hydrogen in Gladstone? Is it something that we haven't even thought of?
- R. This has been discussed in the strategy part. Previously we could accurately predict or very closely predict how our load was going to grow and we could base our strategy on that. Now, the only thing to be certain is that there's uncertainty. This is why we moved to scenario-based planning rather than trying to predict absolutely where we're going, we can pivot and be more adaptive.
- C. The nature of your assets is that they're long-lived assets. If I have a five-year asset business, I can pivot much more easily than a 50-year asset business.



- R. We've got some significant transmission line replacements to consider. We need to know what signposts we should be following to make informed decisions about asset life extension.
- C. There's a lot to consider especially if you're going to end up with a stranded asset from a long life. And facilitating system strength.
- R. Before we had visibility of the New South Wales roadmap, we did quite a lot of modelling on assumptions regarding export capability into New South Wales and what that would mean. We have to be agile.
- Q. So minimum demand has fallen 4000MW in one year?
- R. Yes, last month it fell 4000MW.
- C. Renewable Energy Zones (REZ) are creating interest by fear of missing out.
- C. As a generator we are involved, as we want to be involved.
- Q. Does this infrastructure need to be built under a full regulatory framework (4-5 years) or can it be built under other mechanisms? Is it too long or is it feasible to compress it?
- R. TransGrid seems to be very keen to build more assets in New South Wales. The REZ is a perfect fit.
- C. I guess the question becomes if you're pursuing investment that delivers the lowest overall system cost then what trade-offs are needed?
- Q. Is it better if Gladstone Power Station or Boyne Smelter Limited eventually close?
- R. There's risks on either side of that.
- Q. Do you see the continuing emergence of special protection schemes to maximise the utilisation of the network?
- R. The answer to that is absolutely. This is where we try to manage a transfer or capacity constraint in a part of the network by having special protection schemes in place when there's a contingency. So the next opportunity is actually if you could harness other embedded resources, like batteries, you can coordinate battery discharge response with a protection scheme operation and really help them. That's trying to squeeze the last bit of juice out of the network. I think that's going to be really important particularly where we are going to be quite cautious on investment.



- C. Regarding the transition of coal, we've seen this transformation in technology and social preferences. My concern for storage is it will be out of date really quickly i.e. the gestation period being so long, social pressures, the people that are making the decisions will have transformed. System strength gets held up as a big issue however, the only problem with system strength is the time of synchronous generation. Modern inverter base technology can solve that problem today however, it isn't in the network and the Australian Energy Market Operator (AEMO) has a two-year approval process to get it there. I have work with Powerlink where I've provided all the models for inverter base technology that contributes to the solution rather than taking it away. In some ways system strength is a two-year problem as no new technology coming in two years is going to have this problem, it's actually going to help. This doesn't fill the gap that's left by the traditional generators, it's an interim transitional issue. It won't be the last. So when reviewing pumped hydro my concern is the gestation period is so long, Powerlink will be chasing its tail trying to catch-up.
- R. What we are looking at is this broad spectrum it won't just be one thing for starters you will see inverter-based technologies helping with some of those shorter-term issues. Within that band you could have pumped hydro and large transmission type concepts on one side and the other side a really significant quantity of batteries potentially complemented by something else in the future.
- C. It would be quicker and cheaper to achieve the objectives of the National Electricity Rules to have 5MW batteries on every transformer in the network than one hydro pump.
- R. I agree with you in the need for consideration of options and that's part of what we're trying to create in the analysis. We've got a significant book-end of choices and we'll naturally land in between and hopefully have a solution that is mobile and agile with benefits. A solution which has more distributed resources actually helps us solve a lot more issues on the network than large storage.
- R. I think that's probably a good point to reference. We're not looking at the modelling just from a "what should Powerlink do" perspective. We're looking at it from a "what should Queensland do holistically".
- C. We're going through the Energy Security Board process at the moment of post-2025 market design and issues. Once they get locked in, it comes to a point there's a danger that you're going to be trying to wedge a square peg in a round hole because you're locked in and developments are happening. We haven't got homogenous buy-in across the nation for this and feel this is going to strand assets. It's going to cost customers a fortune because we'll commit ourselves to certain outcomes. Are we addressing the real barriers to this whole process or have we been taken over by risk averse proponents?
- R. How can we inform and engage in a debate if we haven't given thought to it ourselves? Otherwise we're condemned to go on what the ISP says because that's what's in the market. This way we can at least consider and do the analysis ourselves. But as you say we're managing \$6 billion worth of assets.



- R. Part of this work will be like we did with the Transmission Annual Planning Report (TAPR). The next one will be to do an Integrated Electricity Pathways (IEP) equivalent discussion and start to socialise a piece on top a sort of 'beyond TAPR++' almost to start the debate. As we've said, we need to come from an informed position and be able to explain to other people the thinking we've done. Like we have with minimum demand which took us quite a while to get other participants recognising this is a problem nationally.
- Q. How much do you think the Queensland Government values voters' interest in its thermal power stations? Because all of this basically rapidly depreciates the asset value of those power stations. Are they prepared to sacrifice them?
- R. The government owns the portfolio of assets, they provide certain security so one view is if you look at what New South Wales has done they're probably making up for the fact that they don't own all of the key assets and therefore they're having to make some different decisions.
- Q. Aren't we in a better position than New South Wales in that we do have the supply chain under one ownership?
- C. It's a good point, that the government can use its ownership of the thermal stations to facilitate this story here. In New South Wales they don't have the ownership so that's why thermal generators are so focused on the roadmap.
- C. I think the major criticism I have with the modelling in Queensland regarding renewables is they didn't include a loss of value of the thermal fleet in the net benefits.
- Q. We've been actively involved through the ESB and COGATI reform process as well and I know Powerlink has been working with the Queensland Government around REZs and trying to coordinate transmission investment. What is the consumer engagement with those processes? It largely comes to the way the network evolves and the way the generation mix and locational decisions change over time. This will also have quite profound effects around losses and transmission pricing for individual regional zones so there's potentially quite a substantial amount of redistribution of transmission cost between existing network users as well as directly connected customers. How are those broader customer perspectives being factored into those engagements?
- R. One of our scenarios is if we let the market develop on its own, it's a consequence not an input. In other words, the market will develop and those consequences will be as they fall. What we're suggesting is by doing the work we're doing we can help inform the market and potentially make decisions and investments while having regard to the impact on customers. What is the impact on the broader economy? At the moment as a TNSP, Powerlink cannot say 'no' to a new generator connecting. And that generator will land where they land for whatever reasons they have in terms of their investments. So in the work we're seeking to do, we want to inform the consequences and how the market could develop in the most effective and efficient way. So I agree we do have to bring it forward and have some debate about that. When we've got this to a reasonable level we're still working through what this means and have people working through over 2,000 scenarios at the moment we will engage with you further about what that looks like to help inform people's decision making and also to test our logic. We have investments relying on this information so we do need to give it the best test we can to make sure it's a reliable source of information to inform the market and raise a debate at a state and national level? We need to engage with our customers.



- Q. Could Queensland take advantage of REZs developed in New South Wales because they're cheaper to supply power?
- R. In some of the modelling we're looking at these considerations.
- C. The key for me is that you need to be a sustainable business. I still need you in business for years. It's really pretty fundamental to generators. You're government owned so I wonder if a lot of people think that means you can just 'write it off'. So for me I think people understand it has to be sustainable. That means it's got to give a return.
- C. You need to redefine what your core business is. What is it now? What is it going to be in 30 years? What's your risk appetite for being a disrupter? Do you want to be at the leading edge?
- C. I think organisations that transition to be in a place where they are 'leading edge' probably start by saying we need to step outside our traditional role. So this looks like you're taking that first step. I think it's entirely appropriate. I take your point there's a business and financial sustainability gap in that.
- C. You're existing in a complicated interconnected environment. I'm very happy to see that you're not just focusing on environmental sustainability but rather considering sustainability for generations to come.
- Q. You mentioned you did scenarios for five nodes, what's the appetite for full nodal pricing? There's a whole lot of things that we could look at because if you could demonstrate that does deliver the benefits of the customer, what's required to get us there?
- Q. If I'm in 2030 or 2040 and you ask me how successful we've been, aside from environment, reliability and security, the key performance driver for me is the level of stranded assets you built in the last 20 years. I'll judge the success of your strategy on how much you minimised stranded assets. Because inevitably there are there going to be some because we don't have perfect foresight.
- Q. One thing that jumped out at me is that there isn't wording there about collaboration.
- R. That's because we're at the 'who we are' and 'why we exist' phase, not 'the how' just yet. 'The how' will definitely come. There's no way we can do this unless we form strong alliances and partnerships, and work very collaboratively so it's implied but it's not listed.
- C. You're familiar with the Ausgrid engagement model? Their Customer Panel has a range of subsidiary groups that meet to discuss particular topics. It works really well.
- R. We will investigate putting together Draft Terms of Reference for a smaller sub-group.





- C. It would be useful to have a project timeframe around these items.
- C. I wonder whether some of these specific sub-themes warrant ongoing meetings with people beyond the current Customer Panel?
- C. The sub-committees provide for the other experts in that particular area who are not on the Customer Panel.
- C. I see a use for the Customer Panel when this work goes forward helping relay this externally and testing the right perfect language to help translate that to a wider audience.
- C. I'm not clear what the problem is we're trying to solve. It's not an energy problem, supply problem or even transmission problem. I think if we were really clear about the problem you were trying to solve it would make your job much easier.
- R. In some respects it's really about policy coordination. The Queensland economy will not be able to do what it needs to do unless we make the right energy decisions.

#### Actions:

> Powerlink to develop a project timeframe, scope of works and Terms of Reference for the proposed Customer Panel 'subgroup' to provide ongoing support with guiding Powerlink's long-term strategic planning.

#### 5. End of year thanks

- Paul Simshauser, Chief Executive

#### Summary:

- The Customer Panel's continued support, focus and commitment to meet with us during these difficult times has been greatly appreciated.
- We've had four Customer Panel meetings this year and covered a range of important topics. Thank you for providing your honest insights and feedback on a range of decisions that have impacted our business.
- We look forward to working closely with you all again in 2021.

#### 6. Meeting closed 4.30pm