

# Question and Answer

## Operator

[Operator Instructions] Your first question comes the line of Matt Henry from Goldman Sachs.

### **Matthew Allan Henry**

*Goldman Sachs Group Inc., Research Division*

A number of questions. You sort of mentioned the ongoing impact of efficiency. Are you able to give us any color on the -- specifically, what do you think are the drivers of efficiency, and what are the most material impacts on efficiency? And whether you're also seeing that trend in the commercial industrial space, or is it most pronounced in residential?

### **Simon MacKenzie**

*Group Chief Executive Officer*

Yes, Matt, yes, we've been doing a significant amount of analysis on this. I guess, once we back out of the 11% residential level [ph] and we get to around 7% on the adjusted decline for residential. And if we deconstruct that interesting enough, a lot of people thought housing had a big -- sorry, heating had a big impact on that, has been a less impact on net reduction. The key reduction has occurred through renovations of homes, has been new appliances. So we've been able to get a lot of information around new implants [ph] and where that's located across, whether people have adopted those across Auckland. And looking forward, they still -- through the big efficiency gains to probably be driven through the likes of LED lighting, in particular. In the commercial sector, we're seeing that mainly through operational practices. We feed our information on energy consumption and customers looking to install, again, lighting solutions and/or manage their production in better ways so they don't create so many peaks on their demand.

### **Matthew Allan Henry**

*Goldman Sachs Group Inc., Research Division*

Okay, thanks. Second question. On Australia, can you just give us some color around how much capital will you be prepared to commit to that market? And I guess, you want to target gearing level, looks like. How much balance sheet capacity do you think you've got available?

### **Dan Molloy**

*Former Chief Financial Officer*

Matt, it's Dan. Thanks for the question. Look, I guess, it all depends on how the market shapes up and what contracts we end up getting. We're expecting front meters on the wall. There will be a different cost base to New Zealand mainly due to installation costs, which are looking more expensive than Australia. But -- and so we'll see how the contracts shape up, but it's impossible to know.

### **Matthew Allan Henry**

*Goldman Sachs Group Inc., Research Division*

Okay. On that opportunity, is it -- how do we think about it? Is it simply a return on asset-type investment? Is this is going to be a cost of capital-type shootout? Or do you think you can bring something more to the offering beyond price?

### **Dan Molloy**

*Former Chief Financial Officer*

Yes, look, I think that the thing that we're really finding over there at the moment is we can talk to a very credible track record about we've done in New Zealand and how we've delivered on our contract in New Zealand and how the market has evolved in New Zealand. And that's really saying over there is a real success relative to the market out -- to the roll out in Victoria, which was a distributive [ph] model. So look, I think we've established a lot of credibility. People are looking at this for the service effect that

we've rolled out in New Zealand. And if you sort of look at the power of choice projects that is -- we're really focusing in Australia around demand response and a whole lot of other initiatives. Smart metering is the real key to unlock that and some of the things we've done in New Zealand sort of speak very well to what they want to achieve there.

**Matthew Allan Henry**

*Goldman Sachs Group Inc., Research Division*

Are you hearing at all whether there's other people sort of actively engaged in discussions over there? Or were there many people engaged?

**Dan Molloy**

*Former Chief Financial Officer*

It's a relatively big market opportunity, so there's definitely going to be competition. Look, you'll probably see some of the big generator retailers potentially go their own way, and -- but I think you'll also there's -- very much a space in the market for the model that we're operating in New Zealand.

**Matthew Allan Henry**

*Goldman Sachs Group Inc., Research Division*

Okay, thanks. I mean, maybe just a last one. Are you able to give us any sort of color around what the economics of solar and battery look like and where you think there's a potential for these things to be competitive on price alone?

**Simon MacKenzie**

*Group Chief Executive Officer*

Matt, look, I think the reality is we often see this as solar is still a product that we're seeing that customers are choosing. It's not necessarily being chosen primarily on the stand-alone economics of it. It's interesting that there still significant growth in that market and it rests back on the point that we make around customers are wanting choice and the price is not always the primary reason why they want choice with regards to solar. A lot of the research that we have is, is that they want to actually feel they have control over their own energy, that they have a concern about future energy prices increasing, that they have them -- in many cases, they have environmental perspective. So in the New Zealand market without those [indiscernible] that we see in many other markets, obviously, it's quite a different proposition. We don't necessarily package solar and batteries together. We see batteries to have a raft of other solutions in the residential space and then there's the ability to link those up with solar, so as you put the energy into a time zone, couple that with some of the new retail offerings out there that make sense for customers that want exposure to wholesale. We also see that these -- raft of other opportunities, where the existing battery solutions out there that are of an old technology, that these batteries will displace and actually they're going to displace the significant amount of other support equipment around them. And then, as we mentioned on the commercial space, there's also a -- sorry, a commercial and/or network space, there's the ability for the batteries to displace traditional solutions, such as UPS systems, uninterruptible power supply, these old generators. And also potentially into the network side of -- meaning that we can cover peak demands through charging and discharging at peak times than in substations rather than actually deploying a significant amount of capital into traditional cables and transformers.

**Matthew Allan Henry**

*Goldman Sachs Group Inc., Research Division*

Okay, great. Just -- are you able to give us any color around what you think the economics of solar look like today?

**Dan Molloy**

*Former Chief Financial Officer*

Matt, I guess, it depends on so many factors. But from a residential perspective, we always say the key benefit of solar at the present time is it enables you to increase your self consumption. So generating with solar, you're obviously generating power during the day. You must be laying at home during the day. So

the advantage of the battery is that it lets you load shift, lets you use that solar generation, rather than being exposed the really low equal tariffs that are currently in the market. So effectively, the combination of battery lets you significantly improve the economics of your solar.

## **Operator**

Your next question comes the line of Grant Swanepoel from Craigs Investment.

### **Grant Swanepoel**

*Craigs Investment Partners Limited, Research Division*

Can I just -- I've got a couple of questions. Just first one, following on from Matt on the economics on the PVs and batteries. You guys spent quite a bit of time on the presentation. I just wanted to push a little bit harder on the economics of them right now. Do they stack up against the gentailers? Or is this just still a gimmick for now, and in a few years time, it might be economically viable? Second question on that, the development costs and startup cost of bringing the batteries in, et cetera, are you nailed to put any of that cost against your regulatory expenses? And then just following, metering, you've got \$4.2 million of extra costs that are due to technology and other. Can I assume that's non-normal over time? Or will they be somewhat better in FY '16? And then final question, on your Gas Wholesale, if we assume that the Kapuni determination is okay, that you haven't overused and that you don't get a new price on the Kapuni, what is the normalized EBITDA we'd expect from that without further Kapuni gas?

### **Simon MacKenzie**

*Group Chief Executive Officer*

Grant, I guess, with regards to -- trying to recall the first questions, but you're asking more about the solar and battery. I think the first starting point we take from this is that we put a lot of focus on batteries probably primarily in solar. We recognize in the New Zealand market that solar is still a seat from that. The price is not key consideration. If we look at that, then the installed cost of a solar unit is probably still above the installed cost of a -- sorry, the delivered cost is still probably above what's in the wholesale market. However, I think that the important point to note here is that many people can focus too much on the -- what would be seen to be the rational market kind of pricing and economics. What we're seeing is quite a change with regard to consumer demand and perspective around what they want to do on their own life. And I think that we've seen that occur in Australia. We even -- when fees and tariffs were removed, energy prices -- energy solar installations were still increasing about 10% per annum. So the cost of solar and installations still continues to decline. Where that ends up, we don't know. But we believe we have to understand, not only what that option means to consumers, but what it also means in the operations of our networks. When we go into battery, as you've probably seen the battery pricing currently sits in Tesla at about \$3,500 for their Powerwall solution. That's USD 3,500. Those prices are expected to halve in the next 2.5, 3 years. So we -- there's a significant downward trend in those. And the applications of the batteries, we don't see as just being connected with solar as mentioned earlier. There's a raft of our solutions, such as -- where people need to increase their consumption or their demand in their premises. There's a lot of displacement of existing battery technology that needs to be met. And then when we get into the utility space, they are clearly, and have been becoming more and more prevalent now in networks overseas, batteries being utilized for demand response for providing energy solutions and to -- like the frequency-keeping markets, globally. PJM, have they gone this over in the States. And also, we have a number of zone substation here, is where these battery solutions will be deployed as opposed to expensive network upgrade. So the ability to put on to our asset base is the -- we are able to put in, in our view, the network-related batteries because these will go in to provide a substitute for what would've been a traditional network investment. Dan, you got the second...

### **Dan Molloy**

*Former Chief Financial Officer*

Grant, to your question on metering. I think on Slide 16, the graph you're referring to, the \$4.2 million of other costs. So you're right, that includes expenditure on our Australian initiative, and it also includes some of the work we're doing -- the R&D we're doing around these new technologies, so including batteries, climate issue management and solar. We expect that we are going to have to keep spending in

Australia over the coming year. We have some more work to do to complete our accreditation. And one of the requirements of that accreditation is you pretty much have to step up your operating business model before you can go and get customers. I think your last question was on Kapuni, and what we're keeping [ph] this year. So I think EBITDA or segment earnings out of Gas Wholesale this year were around \$47 million. Look, I think with the -- this year, something in the order of \$40 million. But obviously, that's subject to a number of provisos. One of them is obviously, oil prices, which as of now are down around \$40. Other ones, obviously post [indiscernible], and that will have a material financial -- potentially will have a material financial impact. So look, in terms of actually answering your question about what a normalized earnings is in for that business, it's just very hard to give you that.

**Grant Swanepoel**

*Craigs Investment Partners Limited, Research Division*

Thanks, Dan. Just back to the batteries, I know we're not letting it go, are we? Are you expecting to install a 500 or 10,000 or 100,000 per year-type quantum?

**Simon MacKenzie**

*Group Chief Executive Officer*

I'm not too sure what you mean -- as in, watt hours or...?

**Grant Swanepoel**

*Craigs Investment Partners Limited, Research Division*

Both. I'm just talking about how many of these...

**Simon MacKenzie**

*Group Chief Executive Officer*

From our perspective, the theory we primarily see in the network space will be large-scale megawatt, 2 megawatt, 4 megawatt, 5 combo solutions. In the residential space, we've got the original 130 coming out to the energy program that we're doing. We've had a fairly large demand. People just registering on our website, which is now near around about 700 people registering this, not only in Auckland, but also across the country. But outside of that, as I mentioned, the -- what we're doing sort of is still scoping the size of the market. There's a significant amount of batteries that are utilized in other applications that are, for example, UPSs, inbound power systems and also just control system requirements. We're -- there's -- we're already seeing quite a strong demand for the Tesla's type of battery solution to be deployed into those rather than the traditional lead-acid batteries. Why that is? Because in many circumstances that the cost is cheaper. The operational characteristics are much better, and they don't need a lot of supporting equipment, such as heating and ventilating to maintain their operational levels.

**Operator**

Your next question comes the line of Steven Hudson from Macquarie Securities.

**Stephen Hudson**

*Macquarie Research*

Firstly, just a question for Simon. You referenced a sort of a special undertaking that you might be proposing. I just wondered if that was going to be similar to sort of a flat nominal return DPP-type solution, given the sort of technology risk that you've identified for your networks. And then, just a couple of questions for Dan. I guess, I'm just interested in the current net debt-to-EBITDA ratio that's targeted by Standard & Poor's for your BBB and also whether or not that's sort of face value or reported value of debt. And then, just secondly, on customer contributions, there's going to be about \$55 million this year. If you can just remind us of the regulatory treatment for those amounts, that would be great, too.

**Simon MacKenzie**

*Group Chief Executive Officer*

Sure. Well, Stephen, the -- we don't actually think a DPP-type arrangement is in any way shape or form type of tool that is appropriate for what we see in Auckland, not to mention that we're expecting a network investment of about \$1.8 billion over the next 10 years just to facilitate growth expected. So what we're talking about special undertaking has been used in some other markets, where essentially there is a -- the input methodology's largely locked in. They don't get reopened on a regular basis, and they're locked in for a reasonably long period of time, 20 years, with limited ability to reopen them. That gives the confidence on the cash flow. The other aspects that can get adjusted on the way through, for example, is to sure up things such as volume, forecast and CPIs. So we don't wear these significant reductions off the back of forecasts that haven't translated into the reality of the situation as well as the ability to flex the CapEx up and down as the growth essentially materializes or doesn't materialize. So it's actually a longer-term framework to give us confidence that we can go to the capital markets and invest to undertake the growth as opposed to sitting with these constant reviews, reopeners and changes to some of those input parameters.

**Stephen Hudson**  
*Macquarie Research*

Just as a follow-up, the prospect of sort of getting a kind of a flat 7% sort of nominal return as opposed to a rising 5% real return isn't enough for you. You're more sort of focused on, as you say, locking in [indiscernible] certainty over decades?

**Simon MacKenzie**  
*Group Chief Executive Officer*

Yes, I mean, absolutely. Because, I mean, there's the other aspect is this, for us, there's the certainty about the cash flow profile. As we've constantly said, we've had problems with regards to the way in which the revaluation occurs from a cash flow perspective, particularly when that gets coupled up with the potential risks around technology that we're looking for a much -- a profile, which -- sorry, a methodology which takes into account all those issues, also becomes extremely difficult to basically operate a CPP as real and quickly, just a modification of the current DPP, in so much that when you choose to take one, you get the WACC that's prevalent at that point in time based on the cost of debt. And other than that, you might get a 5-year window. But it doesn't address some of the fundamental issues that we are seeing as problematic to investment.

**Dan Molloy**  
*Former Chief Financial Officer*

It's Dan. Your question around gearing, so just firstly, obviously, with this sort of [indiscernible] mark-to-market movement, they swing profits around quite a bit. From Vector's perspective, we hold out debts to maturity. We lock in currency rights when we take it out. So over the lifetime of the debt instrument obviously these derivative movements net to 0. The rating agencies look at debt in a very similar manner, in that then they look at the face value. So we've got 2 primary ratings metrics, and it's FFO to total debt and FFO interest cover. I can't remember what your third question was.

**Stephen Hudson**  
*Macquarie Research*

Just -- sorry, just on that one, Dan. So can you give us an idea on what S&P are targeting for your BBB on either of those metrics at the moment?

**Dan Molloy**  
*Former Chief Financial Officer*

I can say. FFO total debt, I think, it -- we're sitting in the sort of in the 12%, around 12%. S&P target is 9%. So above 9%, we're in BBB territory. Below 9%, we'd be in BBB- territory. I can't remember what the interest cover -- covenant is off top of my head.

**Stephen Hudson**  
*Macquarie Research*

It's fine. And sorry, my last question was just around capital contributions. Obviously, quite a large amount at the moment. \$55 million, I think, is the guidance for next year. I think you have to amortize that over a 10-year period. I can't quite remember. Just wondered if you could give us sort of a brief refresh on the regulatory treatment for those ECs.

**Dan Molloy**

*Former Chief Financial Officer*

One of the reasons we've provided a bit more information on capital contribution is we recognize for you guys just really had to forecast them. They're abnormally high at the moment due to some really big relocation projects around the gas transmission business. Transmission galley and [indiscernible] and a few projects like that. So from a reg perspective, they needed off against the reg. And I think we are not likely to -- beyond sort of next year, we're not likely to see the current level of contributions for relocation.

**Operator**

Your next question comes the line of Greg Main from First New Zealand Capital.

**Gregory Main**

*Jarden Limited, Research Division*

Just a couple of questions, mostly around the metering business. I guess, we can look at that business as sort of like a return on asset business at the moment. But I guess, going forward, I -- what I wanted to understand is whether you're getting much benefit from all the data that's supposedly these meters are capturing and benefiting from. And are the contracts that you have with the retailers, is there a split between just using the meter from an access point of view as opposed to using other services off the meter? And if there is, are you getting much revenue from data services off the meters at the moment?

**Simon MacKenzie**

*Group Chief Executive Officer*

Yes, I agree. The meter business, I guess, from our perspective [indiscernible]. The way in which the businesses is split between the physical metering [indiscernible] data services. The data services being primarily at this point in time, which we're seeing that one increasing. But it's primarily been for provision what we call the base level services of -- potentially the billing data being provided to the retailers, and also, some functionality, such as disconnecting rate and [indiscernible] other related services, potential there to move more into the pre-pay solution provision. What we also recognize is then we're seeing more and more now coming through. There's a split between information that the retailers see as valuable, but the meters can also collect network information. And of that network information, we've been doing a significant amount of work ourselves around how we can utilize network information data to drive a lot more operational efficiencies and look at how we can proactively repair or get on top of maintenance or customer events before they have to call in the call centers which obviously saves both parties. Those are services that we expect the model being that the baseline return on the actual meter on the walls. So the payment, developing a suite of services and products above the baseline data services that the customers require them whether they be the retailer or if there was a network operator, then might add something [indiscernible].

**Dan Molloy**

*Former Chief Financial Officer*

And the only other thing I'd add is, we definitely built this business up by being an asset owner. And so your question around return on asset play, is fair. But I guess going into the future it doesn't necessarily need to be like that. You'll see that we're starting to roll out meters over this year for the SmartCo consortium, and those meters won't be owned by Vector, but will be owned by individual networks. And we'll be providing the smart services in the -- for them.

**Gregory Main**

*Jarden Limited, Research Division*

Yes. Well, has the data sort of revenue stream, I suppose, that you're getting off the meters, has that evolved as what you thought it would? If you go back, say, 3 years? I know that you're rolling out smart meters still. Does the actual data size...

**Dan Molloy**

*Former Chief Financial Officer*

It's fair to say that we're keeping a level of services type of revenue, and that sort of goes up and down depending on what's tipping in the market. I think it's very early days for the data revenue streams. It's not a significant part of the businesses yet, but I think definitely focused on it as a significant opportunity.

**Gregory Main**

*Jarden Limited, Research Division*

Right. So if you're going to Australia knowing what you know now, I mean, how are you kind of looking at that proposition? Is it mostly just an asset-type play? Or do you think there is an inherent data or service value that you actually can capture over time?

**Dan Molloy**

*Former Chief Financial Officer*

To be honest, Greg, I think the retailers in Australia, they're a number of dips behind on the smart metering. So very much that they're just starting to get their heads around the fact that come 2017, they're going to be responsible for metering and will have to be able to provide metering for new connections and replacement meters. So look, obviously, we think they're going to be more focused on rolling out those meters, getting the benefit of remote reading and some of those things. And I suspect that the data stuff will evolve subsequent to that.

**Simon MacKenzie**

*Group Chief Executive Officer*

[indiscernible] to Dan's point about the SmartCo kind of model, we have other parties install the meters, but we provide the data services. We expect Australia to roll out in a similar way with regards to the separation between the meter and the data layer. And that's important also to manage the switching risk of meters because in some cases, we also, through the data management layer expect the outputs from other parties' meters. I think what we're also seeing and had discussions around is other meter providers outside of electricity that are also interested in not having to basically build their whole data systems as well. Just think as we see the market mature more and more with regards to different products out there in the retailer, it makes sense for us to have a base layer of service and then price other options on top of that, whether these be retailer information or network information-type services -- information and control, I should say.

**Operator**

Your next question comes the line of Andrew Harvey-Green from Forsyth Barr.

**Andrew Rupert Pelham Harvey-Green**

*Forsyth Barr Group Ltd., Research Division*

Just a couple of questions for me. First of all, I guess on the battery side of things. Can you just explain the business model you're using there? Are you going to be [indiscernible] taking on [indiscernible] risk of buying a whole bunch of I guess, residential and SME-type product? And are you hoping to sell more? Or are you going to be doing very much a sort of an order basis, but once the order comes in, then you will procure the battery?

**Simon MacKenzie**

*Group Chief Executive Officer*

Andrew, this is Simon. So I guess, with regards to that, we've certainly got areas now, where we've got customers that are already putting their hands up for the batteries. We are obviously still scoping. The

market is much wider than what we'd anticipated. With regards to other applications for the battery, I think it would be fair to say that primarily, we'll be looking at not bringing in huge volumes and then, trying to sell them. Our focus would be very much on matching the quantities that we bring in with the expected demand and/or the contracted demand from customers. Essentially, at the moment, we're bringing in 2 container loads, which is around about 200 and 5300 of the units, which we have envisaged to having no problem deploying those. And then, on the large scale, large-scale battery solutions, as I mentioned, they'll be deployed on their own network and potentially, other networks across the country. We would be bringing those in on a -- once a contract had actually been into and we had certainty around that.

**Andrew Rupert Pelham Harvey-Green**

*Forsyth Barr Group Ltd., Research Division*

Yes, okay. And my second question is just around I guess, the impact of Otahuhu closing and if it had a reasonable revenue stream on the Gas Transport side. I presume that would an impact on your FY '15 numbers and you haven't been able to I guess, remove that out to other customers. And so -- would give me -- give us a little bit of feel on I guess, how quickly you might be able to do that over time?

**Dan Molloy**

*Former Chief Financial Officer*

Andrew, this is Dan. Look, I guess, we're in a relatively privileged perspective with the gas transmission business in that it has a revenue cap. So we can recover that in the next -- we won't suffer any loss in 2016.

**Andrew Rupert Pelham Harvey-Green**

*Forsyth Barr Group Ltd., Research Division*

Okay. So that is sort of being affected into other customers' price, isn't it?

**Dan Molloy**

*Former Chief Financial Officer*

Our prices haven't been announced yet, but it will be.

**Andrew Rupert Pelham Harvey-Green**

*Forsyth Barr Group Ltd., Research Division*

It will be, yes. And the final question is just around I guess, the discussion of the Commerce Commission on society breaches and just giving a little bit more flavor about where you're at with those and what the Commerce Commission is coming back to you with? What are some -- are there any sort of potential implications, other than closer scrutiny on what you're actually doing around the maintenance side?

**Dan Molloy**

*Former Chief Financial Officer*

Yes, look. This is Dan. At the moment, we've obviously alerted the Commission to the fact that these breaches. We alerted then much earlier in the year because it was [indiscernible] at the back of the significant weather events that we were going to breach them, not unlike a number of other companies across the country. And they haven't actually come back with anything in particular that will go through their process of reviewing. What information they seek from us, we'll provide that information. And they just go through that process, which could arise and asking us to keep a closer eye on something or they may find nothing of concern and just recognize that the predominant issues were weather, the other obvious contributor the Penrose substation, which is subject to the report we are doing with the electricity authority.

**Operator**

[Operator Instructions] And we have a question from Kate Barker from Energy News.

**Kate Barker**



I've just got a couple of questions. First of all, I just want to know in terms of the interest that's coming in for the gas distribution and transmission assets, is the interest coming from organizations in New Zealand? Or is it coming from more offshore people?

**Simon MacKenzie**

*Group Chief Executive Officer*

It's coming from both.

**Kate Barker**

Right. And what kind of timeframe are you looking at for confirming and making an announcement around that?

**Simon MacKenzie**

*Group Chief Executive Officer*

Well, I think the first is that is, to be very clear that -- is to identify that's a strategic review. There's been no decision made, obviously. We're working through with interested parties. The process, we are expecting, timeline-wise to have reached the end of that phase of the process around about the end of October. And or go [ph] where should be able to give an update at the end of the General Meeting, which is scheduled for around about the 23rd -- 22nd or 23rd of October.

**Kate Barker**

Right. Okay. And with the Penrose report, now that, that's gone off to the EA, what is -- what does vector do now? Do you wait until the EA sends their report off to the minister and see what the outcome is? Or is there any work that Vector does in interim while an outcome is waited for?

**Simon MacKenzie**

*Group Chief Executive Officer*

Yes, Kate. The process is basically, we've provided that report to the Electricity Authority. The Electricity Authority and the people within the Electricity Authority that are working through that. We have regular dialogue and meeting with them as they go through it and they ask questions and basically probe into different areas of the report that they wish to understand. There are a number of other reports that they've also received from other parties. They also have to work through other parts of their process, such as the economic impact. They want to understand the -- how much customer response works. So all those areas are still being worked on, and we continue to fully engage with them through their process to a point where -- I can't speak for them, but they'll obviously, have finished one of -- all their inquiries, and then they'll finalize their report and provide it to the minister, who -- he may have some queries. And as we understand, that he'll release it when he's finished his line of inquiry. And they'll post everything up that they needed to under the terms of reference.

**Kate Barker**

Right, okay. And just with the Powerwall batteries are coming in, just after a bit more detail about what Vector's looking through with the deployment of batteries on the network. Are there any details around how many are you looking to deploy and what size of them and whereabouts on the network?

**Simon MacKenzie**

*Group Chief Executive Officer*

Well, we're still -- we've got a couple of areas where we're looking at deploying these batteries. That'll be in a roundabout the 2- to 4-megawatt storage capacity range. They will be probably in the latter part of next year, mid- to latter part of next year. The point, as discussed earlier is, in a number of these areas where they'll be deployed in a zone substation, whereby that area is either experiencing some growth that may necessitate a network upgrade. Typically, those types of situation's over just short periods of demand that you'd have to cater for with a traditional network investment. But by being able to put in 4 megawatts of load at the substation rather than the transfer capacity from the Transpower grid exit point

means that we can defer and in many cases, avoid the need to put those transfer cables from the Penrose grid exit point, for example, to a substation and avoid a significant amount of capital investment. An order of magnitude, in one case, in particular, we're looking at the solution -- a traditional solution would've been priced in the order of about \$10 million, and the battery solution is in the order of about \$3 million. So a significant capital reduction, which will obviously, a, still provide the expected level of service that the lower -- the costs from a network perspective and, obviously, that flows through the consumers in the long run.

**Kate Barker**

Yes, yes. And what's the current cost put against the larger-sized batteries?

**Simon MacKenzie**

*Group Chief Executive Officer*

Well, it's very dependent on a number of things. I mean, to be fair, we're still working on a lot of those pricing details on the larger batteries, because it depends on the combination of the battery capacities that you want for the specific solution and the type of control arrangements you require. So typically, it's reasonably close on a per-kilowatt basis to the Powerwall solution because the actual chemistry, the batteries themselves are pretty similar, but it's the control environment that we still have to finalize. But in that case, we're talking a 2.5-megawatt solution for that number I quoted just before.

**Kate Barker**

And has Vector been in discussions yet with any of the other networks around New Zealand about deploying these batteries?

**Simon MacKenzie**

*Group Chief Executive Officer*

Dilutely, there's been a number of other networks that have -- we've spoken with. A number of networks contacted us. They see a very viable for their solutions as well, and it will be fair to say that if you look at the global trends, I think that's something that Tesla has found -- has equally caught them slightly by surprise. There's just a significant demand for these types of solutions, not only in markets, such as California to couple up with solar but also a significant amount of demand in the network's environment. The markets in the States in particular, looking at large-scale battery storage to avoid significant peak and move out a lot of network issues and see the same in Australia, particularly up in the Queensland area, where they've had a significant penetration of solar, which is causing them network anxiety.

**Operator**

There appears to be no further questions on the phones. I'd like to hand the call back over to the gentlemen for any closing or additional remarks.

**Simon MacKenzie**

*Group Chief Executive Officer*

Well, thanks very much, everyone for joining us. And if there's no further questions, we'll end the teleconference and webcast. If analysts have any further questions, please contact Dan, and maybe you can contact Sandy Hodge. Thank you very much for joining us, and we look forward to updating you at the half year.

**Operator**

That does concludes today's call. Thank you for your participation. You may all disconnect.