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**TRANSCRIPT OF PROCEEDINGS**

**INDEPENDENT COMPETITION AND**

**REGULATORY COMMISSION**

**PUBLIC FORUM: ELECTRICITY MODEL AND METHODOLOGY REVIEW – DRAFT REPORT**

**CANBERRA MUSEUM AND GALLERY,**

**AUSTRALIAN CAPITAL TERRITORY**

**11.03 AM, MONDAY, 15 APRIL 2019**

MR DIMASI: Good morning all. Welcome to this public forum by the ICRC. My name is Joe Dimasi, I’m the Senior Commissioner, and next to me is Dr Patrick Hamshere, who heads up the Economic Regulatory Group. Just a couple of housekeeping matters first. If you haven’t already done so before you leave can you sign the form yet, so we know who’s turned up. The forum will be recorded and transcribed, so for that reason, speakers should identify themselves before asking questions or speaking, and any affiliations that you have, so we can have that for the record. And a microphone will be provided.

If you wouldn’t mind turning your phones onto silent, which I better do myself, that would be great. And what we’re proposing is, we will run through our findings and our conclusions on our review of the Electricity Model and its methodology, and we’ll have an opportunity for questions and answers at the end. But if you have any clarifying questions as we go through, by all means just jump in and ask, so don’t wait, if you don’t understand what it is that we’re doing. But then, we’d rather have a discussion once you’ve seen the whole thing, but clarifying questions, please fire away.

So with that, I’ll introduce it briefly and then Patrick will go through the details of all the findings, so I’ll be very brief. We indicated in 2017 that we would review the pricing model and methodology, and that was to ensure its accuracy, that it still reflected market conditions and retailer practices and was consistent with the objectives of the Act. Essentially, what we were doing is, I guess, from our perspective, good due diligence, because we had been – the model that had been applied had been around for a while.

We applied it to reset electricity prices, but we really did need, we felt, given the changes in the electricity market, that we unpack it, and we explore it, and that we were confident that we understood what it did, and if there were any tweaks, we would do that. If it needed a fundamental change, we would do that as well. So we though that it was important, though, that the model that had been set up some time ago, we needed to make sure that it was still relevant for the current conditions.

Fundamentally, what the model does, is, it estimates the cost of supplying electricity for a hypothetical efficient retailer in the same position as ActewAGL Retail. If you think about that for a second, that’s important and also quite challenging, because we’re not saying, we’re not looking to see what are ActewAGL’s costs of supplying electricity. We’re saying, what would an efficient retailer – and sorry, by that I don’t mean that ActewAGL is inefficient, I’m saying, what would a hypothetically efficient retailer in the same position as ActewAGL incur.

And we’re looking at the retail component as well. We’re not concerned, I guess, by looking at questions of vertical integration or those sorts of issues, we’re focusing only on the retail component, because that’s where our authority stops. And we do this by looking at the costs, the cost model. So we’re looking at the component – each cost component, which we demonstrate visually in this following chart, which you’ll see quite a lot, and you’ll see it quite a lot in our report as well.

And so the total cost component is made up by the wholesale energy costs, and the various sub-components that make that up, the network costs, the retail costs, and then a retail margin applied to that, which gives us total costs. And then once we have the total cost, of course that’s got to be divided by the load to get the price, so we’re looking at the various cross-components. It’s important to indicate here, and perhaps we’ll go into the details of all of this, but it’s important, in looking here, that the wholesale energy cost, particularly the purchase costs, and the network costs are largely externally set, outside of the Commission.

So the network costs are regulated by the AER and we just pass them through. The purchase costs – there’s a market for purchase – it’s a forward market, so we use a forward market. But nevertheless, we are talking about the hypothetically efficient firm, so there are different ways that you can cover yourself, hedge for that forward market. And so we have to still make some decisions. So even though, by and large, those two very large components of costs are determined either by another regulator or the market, and similar for the national green costs, energy losses and so on, there is still some discretion in the approach that you take and we’ve had a very close look at that to ensure that it’s the best way possible and that we have confidence in what it does.

So in summary, and stealing a bit of what Patrick’s done but not too much here, in summary, we found – and with an independent consultant looking at it – that the current approach that we use is methodologically sound. There’s nothing fundamentally wrong with the model that we had in place, and that was good to know. But there were some questions asked about some of those components that I just talked about, and how best they could be done.

And so our draft decision is to maintain - largely maintain, the current approach, but we think that it can be tweaked and improved, particularly the way we approach the energy purchase costs, the Green Scheme costs, the energy contracting costs, and the NEM fees and we’ll go over each of these in detail, so I won’t spend any time here otherwise I’ll double up with Patrick. Now, whilst these issues are, as I said, at the margin, because fundamentally we’ve decided to keep the model, they are nevertheless quite complex, and we’ve given them a lot of thought, and we’d certainly want you to understand what it is that we want to do here.

And in some cases, there’s still some balancing between costs and efficiency that we’ve got to trade off, so some inputs on that is also going to be very relevant to us. And that will become clear as Patrick goes through the details of the model. So with that summary, I’ll get Patrick to launch into the details of what sits behind all of that, and we’ll see where we end up. Over to you Patrick.

DR HAMSHERE: So I thought I’d start with a quick summary of the presentation structure. So I’ll first talk about the review timeline, and then I’ll talk about each cost component, and the current approach we take, and our draft decision. Then I’ll recap the next steps for this review, and we’ll hand over to questions. And as Joe mentioned, even though the subject matter here is quite technical, the focus of this presentation is to explain the key points in a nontechnical way. The technical details are all in the draft report, which is on our website.

So in terms of the review timeline, the Commission released an issues paper on 15 October last year. We then released a technical paper on the energy purchase costs component of the model on 1 February, and we held a technical workshop on energy purchase costs on 13 February. We released a draft report on 4 April and we’re now at the public hearing stage of the review. So submissions for the review close on 2 May, and we will use those submissions when we prepare our draft report – sorry, our final report, which we will publish by 31 May.

So just before working through each cost component, it’s useful to understand the different factors that make up the cost of electricity, and Joe has already walked through some of these. For those of you who are not familiar with the supply chain of electricity, I have it on the screen at the moment. The first factor on the diagram is the generation costs. So electricity is generated and it’s sold on the spot market. The second factor you can see there is the transmission and distribution costs. So they refer to the costs of maintaining the poles and wires that are needed to transport the energy from the generator to the customers.

The third factor is the retail costs, and you can see that as the black building in the diagram. So retailers buy electricity on behalf of their customers. They run call centres and they operate billing systems. So as Joe mentioned, the cost components in the Commission’s model, they mirror those discussed on the previous slide. So there are wholesale costs, network costs, and retail costs, and within each of those there are cost categories. Some of the model components I have a green tick next to. That means the Commission is proposing to leave the methodology for calculating that cost unchanged. I’ll still talk a little bit about each component and the current approach we’ve taken to those.

So I’ll start by discussing energy purchase costs, which are circled in red. So energy purchase costs include the cost of purchasing electricity and the cost of hedging, or in other words, the costs of managing electricity spot market price risk. So the Commission sought advice from Frontier Economics on the energy purchase cost component of the model, and we released their report and our own technical report on 1 February. Frontier focused on comparing the current method to an alternative approach. Both of the approaches are quite similar, and they’re both sound. And when I say sound, I mean they generate a reasonable outcome, or they generate a cost that is an efficient cost.

The current approach is a little simpler, and the alternative approach is a little more efficient and realistic. But it is a bit more complicated. So Frontier recommended broadening the hedging strategy, to make it more efficient and to reflect retailer practices, and specifically they recommended including a range of hedging products, rather than just relying on one hedging product as in our current approach.

They also recommended basing the key inputs on a shorter time period, in particular the data on the spot prices and load to reflect the ACT demand characteristics. So the current model is based on key inputs that are estimated using data going back to 2003-04 and that’s less likely to account for important changes in the market that have happened since then. So, for instance, the take up of air-conditioning and solar panels. And that longer time period also doesn’t reflect current retailer practices.

So if Frontier’s approach was adopted, their key model inputs, particularly those relating to demand and price characteristics, would need to be based on a representative year, and Frontier recommended simulating that representative year. And that stimulated data would effectively be an average over recent years, but it would retain the volatility present in spot prices and loads. We can’t just use a simple average of recent years, because it would smooth out the volatilities that are in that data . And I should add that the current approach, by the way it’s constructed, it uses data from multiple years, but it retains those volatilities, and the relationship between spot prices and loads.

So in terms of the draft decision, the Commission is inclined to adopt Frontier’s recommendation and broaden the hedging strategy, but there is a trade-off. As I mentioned, there’s this trade-off between realism and simplicity and transparency. So we’re still investigating potential implementation issues for the final report. It’s also worth adding here that these broader hedging strategies that we’re considering adopting, they are used by other regulators. So the Queensland Competition Authority uses this, and the Victorian Essential Services Commission is proposing to use this method when they set the Victorian Default Offer.

So in terms of the model inputs, the Commission is proposing to use data from the past five years prior to the price direction, to determine the key inputs. We’re also proposing to continue to calculate forward prices based on a 23-month averaging period. So the reason for that is that this 23-month averaging period smooths out large price fluctuations, and stable prices help consumers to manage their budgets.

It also reflects the practices of retailers. So the ACCC found in its 2018 report of retail electricity pricing inquiry, that the most medium to large retailers hedge for two years. And it’s also worth pointing out with that, the cost to customers over an extended period, is not affected by the choice of averaging period and I’ll talk a bit about that on the next slide. And, just for those of you are not familiar, the forward price here refers to the price paid for a certain amount of electricity in future. So it’s talking about future prices.

So up on the slide at the moment I have a graph showing forward prices. So on the horizontal axis I have the year, going up to 2018, and on the vertical axis is the price. The green line there is showing the daily price, and the black line is showing the 12-month average, and the red line is showing the 23-month average of that price. And what you can see is that the black and red lines that represent the averages, they move around less, compared to the green line. And you can also see that the 23-month average moves around less than the 12-month average, for instance, it didn’t increase as much in 2010, and it didn’t decrease as much in 2012.

And another thing that this graph shows, I guess, is that both averaging periods, they allow the retailer to recover their costs providing electricity, it’s just changing the timing of those payments.

Okay, so we’ll move onto the National Green Scheme costs, which is the second component of wholesale energy costs. So National Green Scheme costs reflect the national environmental obligations imposed by the Australian government on energy retailers to create incentives for investments in renewable energy sources. So it reflects the costs of the large scale renewable energy target, and the small scale renewable energy scheme.

Basically, retailers purchase and surrender large scale generation certificates, and small-scale technology certificates to government. And these certificates are traded in the spot market. So the Commission’s current approach to estimating these costs is to take the average of the spot prices over the past 11 months. We also currently apply a ten per cent holding cost, and a five per cent administration cost. And there are holding costs, because the retailers typically purchase these certificates in advance of having to surrender them. This is because spot prices can be volatile.

So the draft decision is to maintain the current approach, but don’t include these separate allowances for holding costs and administration costs. And the reason is that these costs are related to finance and administration, which are accounted for in the retail operating cost component. So this decision is aimed to avoid double counting, basically.

 So just looking at energy losses, the draft decision there is to maintain the current methodology. For those of you who are not familiar with what an energy loss is, some energy is lost in transporting it from generators along the poles and lines, to customers. And the current methodology applies loss factors to wholesale energy costs and loss factors are calculated by the Australian Energy Market Operator, and the approach is similar to the methodologies of other regulators.

So I’ll move onto energy contracting costs. So energy contracting costs represent the cost of maintaining an electricity trading desk. The Commission’s current approach involves applying CPI indexation to a 2007 benchmark. The draft decision is to remove the separate allowance for energy contracting costs.. These, again, these costs are part of administration costs, which are included in the retail operating cost allowance. And again, the draft decision here is really to avoid double counting this cost.

So I’ll move onto NEM fees, so National Electricity Market fees. So the National Electricity Market is managed by AEMO, the Australian Energy Market Operator, which recovers its cost from market participants. The Commission’s current approach is to apply CPI indexation to IPART’s 2007 NEM fee estimation. But the Australian Energy Market Operator does provide details on what the fees are.

So in terms of our draft decision, we’re proposing that for the first year of the regulatory period we will determine NEM fees using AEMO’s cost data, and will determine ancillary services fees by taking an average of these over the past 52 weeks, and then in subsequent years of a regulatory period, we’ll index those by CPI. And for those who are not familiar with ancillary services, they refer to operations undertaken by AEMO to maintain electricity grid security and stability. And the approach that we’re proposing to take here is very similar to the approach taken by the Queensland Competition Authority.

The Commission is not proposing to change the methodology of network costs, so I don’t want to talk too much about those, other than they’re the costs associated with transporting electricity from generators to customers. The current methodology involves passing through those costs and they’re determined by the Australian Energy Regulator.

So I’ll move onto the retail components. So retail operating costs are the costs associated with providing retail services to customers, and the Commission has previously used a benchmarking approach to calculate these. And the current benchmark was set in 2012-13 and it’s been indexed to the consumer price index since then.

So in terms of the draft decision, it’s to maintain the current approach and consider the benchmarks during the next price investigation. And this is likely to be informed by the Australian Energy Regulator’s Default Market Offer and the ACCC’s monitoring reports, the Victoria’s Essential Services Commission’s default offer, and any other regulatory decisions.

Moving to the ACT Government’s energy efficiency improvement scheme, I won’t talk too much about that, because we’re proposing to leave that methodology unchanged. For those of you who are not familiar, this scheme requires retailers in the ACT to promote energy efficiency measures, and we allow for those costs to be passed through, subject to a prudency and efficiency assessment.

So I’ll move onto the retail margin. So the retail margin compensates the retailer for investments made in providing electricity and services to customers and the Commission has used benchmarking approaches to set this margin. And the draft decision is to keep the current methodology and consider the appropriate benchmarks in our next price investigation. And as I’ve explained in one of the previous slides, these benchmarks will be informed by the current regulatory investigations, by the ACCC, the Australian Energy Regulator, and the Victorian Essential Services Commission.

So in terms of the next steps for the review, we’re seeking feedback and comments from stakeholders. Submissions to the draft report close on 2 May and they can be emailed to us. And I’ll hand back over for questions.

MR DIMASI: Thanks, Patrick. So I guess in summary, what we are proposing to do, as Patrick has explained, is to maintain the model as it is, largely intact, but to tweak some of those inputs in the model. And probably the most complicated of that is the approach to hedging for the purchase costs, where just to add a little more to what Patrick has said, what we’re looking at – what we discovered in looking at the model was it’s – even though these things can be pretty technical and varied in some complex mathematics, at the end of the day it really assumed base swaps was adequate for covering that hedge position.

And we’re talking about a hypothetically efficient retailer, rather than specifically what ActewAGL Retail might do or not do. And the alternative approach involves probably a greater range of hedging tools, so it involves a little bit more complexity in calculating that, not as simple. But probably reflects more accurately what retailers are doing out there in the market place. So we’ve got to trade that simplicity, as I said earlier, for that greater consistency with what is happening in the market.

So that’s one of the key decisions. And we’re proposing – unless we’re persuaded otherwise, at this stage, to go with the more realistic approach. But, again, that depends on what evidence, information and feedback we get. But that’s what we propose to do in the draft. The other issues involve a couple of little points where we think there might be the possibility of double counting, or things that have changed over time, and using data which is relevant for now, five years, rather than going back to 2003-04 for our inputs. So making the data that we rely on more realistic and more relevant. So I think that’s also fairly important.

And also, I guess, where we think there is double counting and we are proposing to include those costs, the relevant costs, in the admin costs or the retail costs. Again, unless we have evidence to the contrary, but we believe that that’s where they belong, and that’s where they should be. So it’s really about making some of those small changes, but important changes, to the model, but stick with our existing model, as we said earlier. So with that, we’d like to hear any comments, certainly we want to hear from ActewAGL Retail, and anyone else who’s got any comments, questions, or feedback. So, over to you.

MS HARDIN: My name’s Alexis Hardin, I work for regulatory affairs and pricing in ActewAGL. My comments are made in relation to the EPC. So while we agree that the intent of the proposed methodology is linked to the current model, I think for anyone who’s tried to implement the proposed approach, it’s quite clunky, and some changes in terms of implementation have a lot of complexities involved. And I think, again, we’d just like to reiterate what we’d said in our submission at the end of February. Those additional complexities need to be weighed up carefully against the benefits of the current model.

So the current model, in terms of the implementation, is quite simple. It gives predictable results, it’s very transparent, and it’s an approach that we can easily replicate. And as a result, it gives stakeholders, including us, confidence in the model and the approach. So I think, again, we would just repeat our message in that submission, that we urge the Commission to consider carefully and learn from the current model and the benefits that we would be foregoing.

Particular concern we have is about the lack of transparency with the proposed Monte Carlo approach to changing loads and prices. So we understand, based on what Frontier had presented to us at the technical workshop, that that approach would require a large number of inputs and assumptions to run, possibly, hundreds of different scenarios. And now, those possible scenarios, the ICRC would then need to exercise its discretion to determine what would be a representative year.

So to us, that does compromise, to some extent, the transparency and replicability of the proposed approach. And we’d also ask as well, whether that approach is really necessary, given that the mixed derivative approach that Frontier is proposing could be implemented using five years of actual data, so calculating settlement payments and difference payments for full five years. So we note that the ICRC, if it were to retain the current approach, it’s going to move to using five years of actual historic data, and we see no reason that that same approach couldn’t be adopted if the mixed derivative model is implemented, so, that’s basically our comment.

MR DIMASI: Thank you. Patrick?

DR HAMSHERE: Thanks, Alexis. In terms of choosing the representative year from the Monte Carlo simulation, the way that we’d probably go about it is by setting a particular metric, so we would, say, run 500 simulations and then pick the year with – Frontier’s proposal was, pick the year that had the median of the load shape, because it had the median kind of volatility out of all those years. So there would probably be some metric that we’d pick to select the representative year, so it would not be subjective. But in terms of your idea to use the full five years of data, rather than running a simulation, it is something I haven’t considered, so I think that’s something we can think about.

MR DIMASI: Yes. Any other questions?

MR WEGLARZ : I was just curious what the current retail percentage is? So you’ve come up with one, but what has it been over the last few years, can you make an allowance for retail costs?

MR DIMASI: Yes.

DR HAMSHERE: It’s one of the smaller cost components, the retail component. The retail margin, I think, is about 5.3 per cent, is it? Yes. And the retail operating cost would be probably similar to that. So probably in the magnitude of about ten per cent.

MR DIMASI: Ten to 12 per cent. The split that we normally use, and we found in our previous studies, is that about 87 per cent is made up by the energy purchase cost and the network cost, somewhere around that order. And about 13 per cent is made up by the other two components, the retail operating costs and the margin. But that can change, based on the facts of each determination. So it’s not a set in concrete, but that’s roughly what we’re talking about.

MR WEGLARZ : And roughly, what are the comparisons you’ve used to create the benchmarks, so you were able to compare the markets?

MR DIMASI: We’ve got only a small number of regulated markets, so we looked at those. In the past we’ve also looked at whatever other data is available in terms of getting costs, so what the ACCC has done, I think Patrick mentioned the various other work that’s been done by the AER and others. So I guess that’s one of the challenges that will be, for the determination, rather than for this decision. Because this is about the methodology. But when we come to the determination we have to plug in the real numbers to get the price, and so when we go through that determination we will then have to make decisions about what we believe are the various components, purchase, green costs, and the like, and what are the retail costs, and similarly, for the margin, to set at a particular figure.

But just for clarity, that’s not what we are doing here. Here we’re setting the methodology, and then we will make the actual decision when we make the determination, say, these are the costs. But given that the methodology stays the same, you can see that the methodology is there, so the proportions shouldn’t change hugely, we wouldn’t think. Patrick?

DR HAMSHERE: I think you’ve covered it.

MR DIMASI: Anyone else? Okay, we’re short and sharp. I think we have stressed a couple of times as we’ve gone through: our desire to be as accurate as possible to reflect, you know, I guess this practice, what retailers really do out in the market, but not to over-complicate the model, if we can. And we are genuine in that desire. So we are, you know, we’ve been having this internal discussion now for a while. As we’ll be going through it we will make a final decision. We’ll certainly hear the issue about complexity and replicability, so when we make our final decision, we’ll certainly give careful thought to getting that balance right.

But we look forward to further submissions to finalise the decision. So with that, can I thank you all for your attendance, and I think there’s tea and coffee outside, so please feel free to have a cup of coffee, mingle, and if there’s any other bits and pieces of the model that you want to talk about, we’re more than happy to have a chat outside for the next little while. I sound like a real-estate agent, don’t I? So thank you all.

**Closed [11:42 am]**