



**AUSTRALIAN ENERGY MARKET COMMISSION**

**PUBLIC FORUM ON AEMC REVIEW OF ENERGY MARKETS  
IN LIGHT OF CLIMATE CHANGE POLICIES**

**HELD AT**

**MELBOURNE**

**ON**

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**(NEM ISSUES)**

**CHAIRPERSON: JOHN TAMBLYN**

*The ex-tempore character of this discussion has been preserved in the transcript taken from a recording of forum proceedings*

**JOHN TAMBLYN:** Good afternoon, ladies and gentlemen. Can I welcome you all to this AEMC public forum on our climate change review. I'd just like to introduce the AEMC team. First of all, I'm John Tamblyn, the chairman of the AEMC. I've got with me John Ryan, one of our Commissioners, and Ian Woodward, Commissioner, and Colin Sausman is the leader of the climate change review that we are conducting. Can I also just mention that we are also conducting a second public forum on 8 May in Perth dealing with the issues to do with the Perth or Western Australian market. Today we'll focus on the national electricity market set of issues. Can I also just ask you - I know you'll have done so - but turn off mobile phones, and could I also just note that we are recording the proceedings, and so we'll publish a transcript of what goes on here today.

But could I ask you when you speak and participate to identify yourself by name and organisation, and also wait for the microphone if you don't mind, because otherwise the recording will not pick up what you say. Just a few contextual remarks from me. The energy market, which has performed quite well in the first eight or nine years of its life, is now undergoing some stress. We have a very tight supply and demand situation. We have continuing rapid growth in demand, rising input costs, and we also have a significant investment requirement for replacement in the generation and network sector, but also for augmentation to keep pace with demand. Overlaid on these stresses, we have the introduction - or proposed introduction, I should say - of climate change policy.

That will involve the CPRS, which as you know is a cap and trade proposal for pricing carbon, the carbon price then giving strong incentives for changes in investments, operation and behaviour in the energy market, but also a renewable energy target proposal which will particularly provide a subsidy and encouragement to the investment in renewable energy. So it's the context of what impact will those policy changes have on the structure, operation and performance of the energy market, which is the subject of our review. Can I also indicate that, at a high level, the AEMC's current thinking is that the energy market design and performance has been sound up until now, and there's a lot of reason to be confident in the basic design and its ability to ride through these fairly dramatic changes.

Nevertheless, we've identified a number of issues which we'll talk about today that look as though - need some change to better facilitate the adjustments needed. In particular, the management of short-term reliability in the face of a very tight supply and demand position is an issue that we think needs some careful attention. The issue identified by Garnaut, and we agree, of the connection of remote generation, particularly renewable generation, to the shared network is an area where we think further attention is likely to be required to the frameworks, and lastly the operation and competition of the retail sector in the context of fairly dramatic changes in costs and prices, and in the context of retail regulation in a number of the jurisdictions. These are amongst the issues that we'll discuss further today, but they are the kinds of issues that we are focusing on for our review.

A few quick words, very quick words, about the AEMC for those of you who don't know who we are. We are the national institution responsible for changing the rules that govern the electricity and the gas markets in the NEM, the interconnected electricity and gas markets, but we also provide advice to the Ministerial Council on Energy through reviews, such as this one, that they might direct us to undertake, or through reviews that we initiate ourselves, and we can also provide policy advice to the MCE on our own

initiative. So that's the role we play, and this review is one of the aspects of work that has been given to us by the MCE.

The mandate from the MCE is for us really to examine whether the existing market frameworks, the wholesale market and retail market arrangements, as well as the network regulation and operation arrangements, are likely to be resilient to the very significant transitional changes that will be driven by climate policy. And if we find that there are areas where we don't think the markets will be resilient and continue to produce reliable energy at efficient costs and prices, we are to suggest changes to the frameworks. So that's the issue that we have. In doing that work we need to have regard to the national energy market objectives, which really focus on efficiency in the markets in relation to investment, operation and consumption. We also have indicated that we will be making changes which are proportionate to the kinds of issues and problems and their consequences that we identify.

In other words, the changes have to be proportionate to the problem which we think we are addressing. We're also going to be very conscious that stability and predictability of the energy market design and frameworks are going to be very important to the investments that are required to manage this transition. So stability and predictability as we look at changes that might be required will be a consideration. We'll also have regard to a number of other important but interrelated review processes that the AEMC is going through - you'll be aware, most of you, of what they are - and also to any interaction with the MCE's agenda as well. The timetable for the review, as you would know, we put out our first interim report following a scoping paper earlier last year.

The first interim report was put out at the end of December, and we've received a lot of submissions and public comment on the positions that we set out in that first interim report. We're now holding this public forum, having done some further analysis of our own and looked at the submissions and the points of view that they raise, and we've taken our thinking further as a result of that process. A second interim report will be published on 30 June. There will be an opportunity for further comment on that second interim report, and our final report will go to the MCE on 30 September this year. I'll also mention that there are a number of constraints on the review. As we are undertaking this review, the government's climate change policy process continues to evolve, so we're working in parallel with the specification of greater detail in what those policies will involve.

I won't talk in particular about timetables, but timing is going to be a question there as well. We are basing our review at the moment on the climate change policy framework set out in the government's White paper. So that's our point of reference for the work that we are currently doing, and we've been specifically directed in our terms of reference that we are not assessing or commenting on the merits of the CPRS or RET policies as specified in the White paper. So you might bear that in mind as we discuss the issues that we deal with today.

The purpose of today's forum, as I indicated earlier, is first of all to explain as quickly as we can to you where our thinking has got to on the range of issues that we think are the material ones for further analysis and change, and where our thinking has got to on some of the other issues that we indicated in our first interim report we didn't think were going to require material change. Our thinking and our work program on

those second range of matters has progressed since our first interim report. But most importantly, we want to then hear from stakeholders - we'll have a number of panels representative of various stakeholder groups of interest to the energy market. Their comments initially, but in particular we want to welcome full comments, questioning, criticisms, observations, from the floor of the forum.

So the structure of today's forum is going to be: we'll first hear a presentation from Colin Sausman here, who will review what the content was of our first interim report, and where and how our thinking and approach has changed in the light of stakeholder submissions. We'll then hear observations from three representative groups, Grid Australia, ESAA and the MEU, Major Energy Users group, on their observations on where we have got to in our thinking and particularly the thinking laid out in our discussion paper for this forum. Following those presentations we'll then open it up for general discussion from the floor. After the break, after that session, we'll go into further detailed discussion about the four areas where we are clearly of the view that they are material matters for adjustment and the kind of thinking we have about the changes that will be needed.

So that's our program for today. Before I hand over to Colin, can I ask if there are any questions or observations about the general approach that I've outlined for the forum today? If there are not - there is one. Allan Asher in the second row.

**ALLAN ASHER:** Allan Asher, the Effective Markets Foundation. In saying that you propose to deal with the four issues that you still hold to be material, does that mean you don't propose discussion on those that you don't think are material?

**JOHN TAMBLYN:** No, it doesn't, and I'm glad you raised that, Allan. What I have in mind is that in the first session before the break Colin will outline in considerable detail where we've got to on the issues that we are clear on, and where we've got to on the four issues that we said we didn't think were material in the first interim report. He'll indicate where our thinking has got to and what further work - where we are doing further work - on those matters that we are proposing. In the forum discussion then, you will be able to make observations on the issues that we are clear about progressing and the issues that are still in the further work basket. So we certainly welcome observations on those matters as well. So thanks for the question. If there are no other clarifying points to raise, let me then hand it over to Colin for your presentation. Thank you, Colin.

## **SESSION 1 REVIEW OF AEMC FIRST INTERIM REPORT COLIN SAUSMAN, AEMC**

**COLIN SAUSMAN:** Thank you, John. Hello everyone. Overall introduction, the purpose of this first session is to look at the first of the two questions for the review. So the review was saying, "Well, what are the points of stress potentially for energy market frameworks? What issues should we focus on?" and the second question in the review was, "Well, if those are the points of stress, what should you do to change the frameworks?" And the first session this afternoon is to talk about the first set of questions, which is "Have we characterised the right set of issues?"

So we have a set of issues that we consulted on a scoping paper and crystallise in

an approach paper, and we've tried to narrow that down into a set of issues which is manageable and which characterises the key stress points that are created through the introduction of the CPRS and the expanded RET. And I think that's quite an important point: this isn't a broad, blank sheet review of the whole market. This is actually trying to assess the specific implications of two policies which will have big implications for the market, and we need to understand what those are. But we're not ripping up the design and starting again. You know, there are some significant constraints around what we're looking at. Okay, so in the first interim report we characterised eight issues that we thought might be important. I think the eighth of those issues is a slightly different type of issue that we can talk about later on.

But the main seven issues where we felt there might be the need to make changes to how effectively policy operated in the market are listed on the slide above, and what we are trying to do is assess, through submissions and through our own analysis of those potential stress points, which are the most important ones, and we've formed some views that we put in a consultation document at the end of the year, together with our reasoning, and the next stage of the process is to essentially reaffirm, "Have we got the right set of issues?" and then move onto the more detailed work of saying, "Well, if those are the issues, what are the answers?"

So what we do in the remaining part of the presentation is to step through each of these seven issues in turn - we'll come to the final one at the end - and reaffirm what we said in the first interim report, just as a bit of a recap, and present an updated view of whether we've changed our mind, and if not why not, and if we have changed our mind, what that might mean for the work program going forward. So the first issue that we characterised as potentially significant was to do with the short-term management of reliability, and the basic driver for this was that CPRS will change quite significantly the costs of generators in the market. Carbon intensive generators will become more expensive, and cleaner technologies will become cheaper, and as a result of that you might see some changes in how generators operate.

Generators that might have operated as baseload plant absent a carbon price might find themselves operating less frequently, and that has some implications for the overall reliability of the power system. The background context for this is a tight supply and demand balance. Now we can hypothesise and pontificate about why that might be the case, but I think it's fair to say that one possible contribution to the current situation is policy uncertainty over the last five years as to what carbon pricing was going to be. Investment in power stations is a very long-term investment and if there's a big uncertainty about a major component of your cost I think the natural thing for investors to do, if they can, is to wait and see what's going to happen.

So part of what we see at the moment in terms of the amount of the generation capacity in the market probably reflects the fact that people who might have previously invested, having been policy uncertainty, have held back those investments. How big an effect that is is hard to say, but it's probably an effect. I suppose the other point to note is it's not the only effect that's driven the tighter supply/demand balance. You know, one argument is there was a degree of excess capacity in the market and over time you've seen a move to a more efficient level of capacity. There are other factors around input cost and other aspects of policy uncertainty. So there's a number of issues that have come together, and we have a situation where the punch line is there is a tight

supply/demand balance, particularly in some regions.

So in those circumstances where there is essentially a pressure on the market there's a question of, "Well, who is responsible for managing circumstances where the market doesn't deliver sufficient capacity, possibly in very short time frames?" The NEM design has a role for NEMMCO in this regard to intervene in the market, and it's limited to relatively short time frames. In the very short time frames it can direct people, and there's a process for compensating people who are directed. In slightly longer timeframes there is an opportunity for NEMMCO to go to the market and try and buy additional capacity, and this might be capacity that isn't economic at existing prices in the market, but could be made economic if it were paid more, and that's the whole point of the RERT mechanism, formerly called the reserve trader.

But I think part of the rationale there is that NEMMCO shouldn't be an investor in generation. NEMMCO's role is reactive and should be limited to the very short-term, and if NEMMCO starts straying into areas where it's in effect another investor in the market, then something has probably gone wrong. So that was our position in the first interim. We felt this was an issue that was worth worrying about, and, broadly speaking, stakeholders agreed, and there's - not a wide range - but a range of views on what you should do with that observation, what degree of change is required. But I think the case for change is reasonably universally held, and our position is nothing has really changed to change our mind; we still think it's important.

So the focus of our current work is to basically analyse the different options for change, and I think this is where you need to have regard to other processes, because the reliability panel, which is another aspect of the AEMC's work, is doing work in a slightly different context that relates to this particular issue, and I think there are plans to consult later on today on possible change as to how the RERT mechanism actually works, which might actually condition what we end up recommending to the MCE. The second significant issue we characterised in the first interim was connecting lots of remote generation. So the main driver from the policy here is the expanded RET will improve the competitiveness of renewable generation, and some of the technologies which are renewable tend to be remotely located.

So wind farmers might want to locate to where the wind is the best quality, and geothermal technology obviously needs to be located where the hot rocks are. So these natural draws to areas which possibly aren't well served by the existing transmission network cause a problem for, "Well, how do you connect these guys?" You're talking about quite long extensions to the existing network. This is costly, and if you are looking at a situation where lots of possibly relatively small individual wind farms are going to coalesce in a single area, possibly over different timeframes, then how do you actually deliver the investment to connect these new generators in an efficient way? Efficiency there is around the total cost of the investment and also the time.

I mean, there are very large economies of scale in building transmission, so if you build two relatively small links a long distance it's significantly more expensive than building one larger link. I guess the framework problem we identified was the current framework for connection revolves around bilateral negotiation and if you're trying to coordinate and anticipate future growth a bilateral negotiation is not necessarily going to give you the right answer. In terms of what stakeholders thought, there was broad

support for this. There were some concerns around the edges and what it means in terms of practical application, but people recognised there is a risk of overbuilding connection assets, and connection assets, like other types of transmission asset, are ultimately recovered from consumers.

So if people were building unnecessarily large amounts of connection assets over time, then this was possibly a significant inefficiency in terms of the overall costs to consumers. So there was the coordination problem, which people realised as a real problem, and cited confidentiality in information in the bilateral negotiation framework as a possible problem. There was also the - I suppose the undersizing risk, that you don't accurately or efficiently characterise the future growth that there's going to be, and you build a very long extension which turns out a few years down the line to be too small and you need to build another very long extension, and the total cost of that is a lot greater than it needed to be.

Another observation that came out through submissions was, "Well, we had characterised the model in the context of transmission that works, but some of these remote areas might be remote to distribution networks, and did the model we were talking about allow for that possibility?" I think another observation - it wasn't a submission obviously to our process - but some of the information in the Garnaut report focused on this particular issue, and characterised it as a potential market failure, that the first mover problem or the coordination problem couldn't be resolved.

I think we're respectfully disagreeing with that view and saying, "Well, there is a way that you can redesign a framework based on a competitive market that actually addresses this issue, and you don't need" - I mean, in Garnaut's report he talked about the possibility of public money just going to fund these remote extensions, and we're saying - "you don't need to go that route. There is actually a route embedded within the energy market that can be made to work." So in terms of what we are doing at the moment, we are busy developing a specific option, and there was one of our subgroups of our advisory committee this morning busy progressing that work, and we'll talk a little bit about where that ended up later on today.

The third issue that we thought material was around network congestion, and the implications of changing how generators operate and where they locate, and the broad question is - what you want is overall efficient investment in generation and associated transmission, and that requires locational signals to be right to direct people into the right place, and the risk, if you like, is if those locational signals aren't correct then generators might locate in the wrong place and transmission will chase the inefficient generation locational decisions, and overall you end up spending a lot more money than you need to. There are also some risks associated with trading risk in the market. There might become significantly more material.

So this is quite a broad-ranging question, trying to ask the question, "Well, if you add up all the signals in the market across transmission investment and how that works, and generation investment and what drives that, then are you getting signals that are consistent with essentially co-optimised overall investment solutions that are efficient?" It's an open question. I think we're trying to do two things at the same time in terms of actual work here. We're trying to basically develop the evidence based on, "Is this a material issue or not?" You know, you might observe changes in patterns of congestion,

but if it doesn't have significant economic effects then you probably don't need to do very much. But if it does have significant economic effects then you probably need to think about how you'd change the framework.

Submissions said there was a recognition that congestion might well change, and it might be material, so it's legitimate to at least continue the work to test whether it's a problem that needs to be solved, and that's precisely what we're doing. Some specific issues around the nature of the costs that went along with congestion. You know, some people argued that the uncertainty about network access was a big problem and that was driving some inefficiencies. There's a whole set of issues about whether you're getting the right locational signals into the market and people can respond to them. So currently we're progressing the work to do the analysis to test this question of materiality, and in parallel do some work on, "Well, if that's the material size of the problem, what can you do through the various levers you might pull to move the outcome in the right direction?"

The fourth and final issue that we characterised as material was around retail price regulation, and the basic driver here is that the CPRS will increase costs to retailers because it will increase wholesale energy costs, and these increases in costs might be potentially very large and unpredictable, at least in the first few years of the carbon scheme. Evidence from previous markets suggested when you first create a new market people need a while to work out how it works and how you can hedge the price risks that exist in the market, and in that period you might actually see some volatility in what happens to carbon prices. The simple observation is that the extent that you have retail price regulation as a way of protecting the interests of consumers - and it plays an important role in that regard - how does a regulator allow for this new type of cost, and, possibly more importantly, this quite volatile cost?

Because there are some risks to the market if retail prices do not adequately reflect costs. You know some fairly extreme examples from overseas. California a few years ago is the obvious example of when retail tariffs were completely out of line with underlying costs, and some of the disruptions that can cause. But there is a genuine question: how do you make retail price regulations smarter to allow for this new and volatile cost? I think there are some quite important considerations here in terms of the advice that we provide ministers. Retail price regulation is firmly a jurisdictional obligation, jurisdictional responsibility, and any changes to the framework will require to be delivered through those organisations as jurisdictional regulators. So the kind of analysis that we're trying to focus on is to focus on principles.

What kind of principles should you adopt, if you need to change those principles, to capture and deal with this particular issue, rather than what should the answer be and how should specific jurisdictions implement change. So a different type of recommendation, but nevertheless an important one. Submissions - some might say reasonably predictably, retailers said, "Yes, this was an important issue." You know, you can be cynical and say, "Well, of course they would say that." But I think you also need to look at it on its merits and say, "Well, you know, they might be right to say that," and I think that's where we've ended up. We do think it remains a material issue that needs further analysis.

We're trying to focus specifically on what is it about carbon costs that are different

to the generality of costs that regulators ordinarily deal with, and where we've got to so far is we think it's the inability of a retailer to hedge these costs, at least in the first couple of years of the scheme, that makes it materially different to energy costs, and possibly that's the thing that drives the changes in the framework that might be required, rather than the fact it's a new type of cost. I think it's the early years and the volatility of the cost that is the real problem. We're busy working with jurisdictional regulators to ventilate some of these issues and analyse the different ways it's currently handled.

I mean, one of the points that we had when we talked to jurisdictional regulators was the existing frameworks weren't designed to deal with this kind of cost, so therefore it's a bit unfair to criticise them for not being able to cope with something they weren't designed to cope with, and a number of regulators are busy developing new models for how you might handle this kind of risk, and in the fullness of time that will bear fruit. So I think where we're trying to add value is to have a discussion, to enable debate, and to focus on principles that could be consistently applied within quite different statutory settings and in each of the jurisdictions. So that's the set of four issues that we characterised in the first interim report as material, and I think the punch line there is we still think they're material, and we're busy developing options for change that can reveal themselves in recommendations to the MCE.

There are another set of issues in the first interim report where we concluded the existing frameworks could probably cope. Importantly, this was a position we adopted for consultation, it wasn't a definitive view, and as we'll talk about in a number of areas we're questioning our own position and wondering whether we need to adapt it. The first issue was this question of convergence of the electricity and gas markets. If the CPRS drives an increase in gas power generation because it's a cleaner technology, then are there any problems at the interface of gas and the electricity markets that cause problems in frameworks? Now, we originally concluded that there wouldn't necessarily be problems and the existing frameworks appear to support the efficient trading of gas and the efficient trading of electricity, and if those two things happened, overall you should see an efficient solution.

Submissions made a number of important points here to say, "Well, broadly speaking, that might be true," but in particular the AEMO focused on the particular management of scarcity in the short term, and is there anything in the regulatory framework that gets in the way of gas being used where it's most valued? The two points that they noted were when maximum prices are present in the market, that might possibly get in the way of allocating gas to where it's most valued, and those are regulated maximum prices. So are there differences in how maximum prices are set that cause problems, which means that gas which should be used for power generation but isn't, or the other way around, and if so, does that drive large inefficiencies? That was a very useful contribution, and we're reflecting on that and, you know, we'll probably need to put some recommendations in to address that particular point.

We're still working out what those will be, but I think it's a significant issue that needs further work. The other issue is a similar kind of point. When the AEMO is directing people in the market - so the AEMO is intervening in the way that NEMMCO intervenes - then what kind of factors should it have regard to, practically and legally? Should it look over a fence and say, "Well, in deciding what to do in an electricity context should I be aware of what the implications might be for gas markets, and if so, how do I

give practical effect to that, given that the two regimes are separate and NEMMCO are exercising duties under a MOU and there's a separate framework for gas?" So do the existing frameworks actually allow the efficient things to be done at these points of intersection?

This is important new information which demonstrates the value of consulting on these things, that we've got time in the process to reflect a bit more and come back with recommendations. The second issue that we characterised as capable of being handled within the existing frameworks was this broad question of investment-delivered reliability. The rationale here is that the expanded RET and the CPRS will change the economics of generation, and what you want is some comfort that when the market makes decisions on where capacity is needed and what type of capacity it should be, it's going to be the right capacity and it's going to be on time. The basic model for doing this - and I suppose the right amount of capacity is the capacity that meets the reliability standard of unserved energy.

The broad framework for this is we want the market to respond to price signals and decide when to invest and what kind of generation to invest in, and this works in the NEM context through the price signals that derive through the energy market. So if capacity is scarce there will be an expectation of high prices, and that will drive investment in new capacity if it's profitable, and so long as the people can see what the price signals are and respond to them and contract around them, then overall that should be enough to deliver at a capacity that's needed. An important part of that is the price spikes, which are an important part of this overall story, depend on the maximum price that the market can go to.

So if you have a maximum price which is too low, people will see the expectations of the high prices, but when they consider investment they will say, "Well, they are not high enough to justify a new power plant, so therefore I'm not going to do it." So that's the risk of having market prices which are too low, and that emphasises the need to be very robust in the process that you adopt to set the maximum price, and happily the NEM has a very robust process. You know the reliability panel review reviews this reasonably constantly, consults actively, and there's a process to propose change if it's needed, and that's precisely what's going through at the moment. There's a rule change with the AEMC to increase the maximum market price from \$10,000 to 12 and a half thousand dollars, and from our perspective that's a demonstration of the process working well.

We couldn't see anything in particular around the CPRS and the expanded RET that challenged how that mechanism might work. If you remove policy uncertainty, which by definition we are doing here, we're assuming that the CPRS comes in on time, then the extent that was a barrier to this process working well - it's removed, so we can rely on this process. There was a mixed bag in terms of submissions here. There was broad support from lots of people in the market, but some very important concerns raised by consumers, and it revolves around the volatility in prices and possibly the shorter-term nature of contracts on offer in an energy-only market compared to alternatives, and they were pointing to this as a big problem and arguing that this was a framework problem that should be addressed and was driven by the CPRS and the RET.

So our current updated position is we think we've got the categories in the right position in the first interim. We think the energy-only framework, with the right maintenance, is the right way to go. It's a big change to move from that position, so that needs careful consideration if you were going to move there. What we also think we want to explore in a bit more detail, what specifically are these concerns about volatility, and how might they be addressed with changes to the framework. So the punch line is we're remaining of the view that we don't need to recommend change to ministers here, but we're still proceeding with the analysis.

The final issue that we characterised as capable of being managed by the existing frameworks was this question of system operation if you've got lots of intermittent plants connected to the network. So the RET will drive investment in wind farms, and wind farms have output which is quite volatile. The wind can drop very quickly, and output will drop off and - other things equal - that makes the task of system operation more difficult. So as a genuine question, does NEMMCO have the ability to manage the consequences of this kind of variability in output? The broad position we took was yes, it does. There's been some significant reforms made already in anticipation of this issue. There's some fairly sophisticated wind forecasting technology out there that's informing the market, and there's also the ability which was recently introduced into the rules to control the output of some wind farms if they were causing stresses on the power system, the so called semi-dispatch rule change.

In our view, those are examples of taking a big and difficult issue like this, progressing it through the existing frameworks and delivering timely solutions to these kind of problems. Submissions were broadly supportive of this as a conclusion. One or two particular challenges - and I think these were quite forward looking. They were saying, "Well, in the long term, if you see retirement of large thermal plants, some of the system support, if you like, you get for free from these big thermal generators will no longer be there, and does that actually require new types of ancillary services to be bought?" I think our view is that probably warrants a bit of further consideration.

It is probably capable of being handled by changing existing rules, but it probably is quite a big issue, and we're thinking about how should a work program be focused to address that issue, if and when it needs to be, and does the existing framework actually facilitate that process? Because some people have pointed to the semi-dispatch rule change and said, "Well yes, ultimately it was a rule change, but there was a long process of development involved and lots of people to actually get to a point where a rule change could be made, and that took four or five years. So if this is an issue of a similar magnitude, does it need a similar kind of work program?" So those are issues that we are contemplating at the moment.

I suppose a final point I wanted to make was around another issue that came up through consultation that we hadn't actually canvassed in the first interim report, and it was to do with distribution networks. A number of DNSPs responded and said, "We think you've overlooked us. We think there are some issues on the DNSP side that you haven't recognised and you should think again." I think our position at the moment is that's a fair comment, and we are reviewing - we've had a number of discussions, and we are reviewing precisely what those issues are. I suppose the main impact of the CPRS and the expanded RET from a DNSP perspective is it might made distribution networks look a bit more like transmission networks in the sense they have generation

connected to them, flows that cross them are a bit more dynamic, and they need active management.

So that's the challenge, if you like, to what DNSP needs to do in the new world, potentially. The framework question is, is there anything in the framework that gets in the way of DNSPs responding to that challenge efficiently, and one of the particular issues that has been flagged up relates to innovation. You might be talking about quite significant changes in how DNSPs operate and what they do, and if a number of DNSPs are all trying to address the same issue in different ways and not particularly wanting to engage because of possible regulatory incentives and how their revenues work, then that might cause a bit of a problem, a barrier if you like, to quickly and efficiently responding to some of these new challenges. So it's a fairly high level - and in fairness the DNSPs themselves didn't say, "Here's what needs to be done." It was more, "This is an issue. It needs to be recognised. Please don't forget us." I think the take away for us has been, "There is a point here, and we do need to consider it in a bit more detail." That was all I was going to say.

**JOHN TAMBLYN:** Thank you very much, Colin. Colin has given a very broad view of where the Commission's thinking has got to at the moment, and we laid in a general way most of that thinking in our discussion paper for this forum. What we would now like to do is to move on with the rest of the agenda and invite the stakeholder representatives to join us on the panel here. From Grid Australia, Rainer Korte; Energy Supply Association, Clare Savage; and Major Energy Users, David Headbury. I'll also be seeking a comment after they've spoken from the consumer roundtable that speaks for the small customer group. So could I ask those people to join us on the stage here and to make their presentations. Sticking to the program, Rainer, we might have you commence.

## **SESSION 2**

### **REPORTS FROM STAKEHOLDER REPRESENTATIVES**

**RAINER KORTE, GRID AUSTRALIA**

**CLARE SAVAGE, ENERGY SUPPLY ASSOCIATION OF AUSTRALIA**

**DAVID HEADBURY, MAJOR ENERGY USERS**

**RAINER KORTE:** Thanks, John. Given where we're at in the program this afternoon I'll keep my remarks fairly high level also. First of all, I should say Grid Australia represents the transmission network owners, or the principal transmission network owners in the NEM. I guess Colin talked about the four issues that the Commission has decided are material and need to be worked on as part of the work program. There's two of those issues that are of particular interest to transmission network owners, and the first one of those is connection of remote generation, and the second efficient provision and utilisations for the transmission network. At the highest level I think it's fair to say that transmission owners are reasonably comfortable that these are issues that need to be explored further, and I guess we're not entirely uncomfortable with the broad direction in which the Commission is going.

But I think, as is often said, the devil is in the detail, and that's where we may end up having some differences of view and where perhaps more work is required. So with that context, I've just got one slide which just sets out some principles that we would just like to suggest be kept in mind as we work through whether changes are required and the form of those changes. The first one of those principles - and this is consistent with submissions we've made in the process to date - the first one is let's, before we put new solutions in place, make sure we're confident that we actually do have market failure. So let's support market-led developments to the full extent possible.

To illustrate, if we're talking about connection of remote generation, if the current processes for bilateral negotiation can be extended, and we're confident that they can work - you know, negotiating with a group of generators - well, let's let that work and not throw the whole thing out. By all means let's supplement such an arrangement; for example, to achieve economies of scale and perhaps build bigger initial assets than the foundation generators might need for their own purposes, but that doesn't mean that we have to throw out the whole commercial negotiation framework and replace the whole asset that's been built through a public process - which actually, in our view, may take you to a more heavy-handed form of regulation than even exists now for things such as negotiated services, which are outside the prescribed services framework. So that's the first principle.

We've just seen some hints in the detailed proposals today that suggest we may be going further than we need to away from the existing arrangements. The second one flows on, and that is, you know, where we do decide that we do need to provide something extra - perhaps, as I said in the example of remote generation, to provide additional initial transmission capacity for generators that aren't yet quite ready to commit or may come along in the future - by all means let's put those arrangements in place, but that doesn't mean we should preclude commercial negotiation where that will work under the existing arrangements. Changes should complement rather than replace or complicate existing arrangements. I mean, it's sort of pretty commonsense, it goes without saying.

But we just encourage that we keep that principle in mind that we want minimal change to the current arrangements that are workable, and let's not do more than we need to. Incentive-based arrangements lead to better outcomes than imposing obligations. That's a principle we're always fond of and I think is relevant in the current conversation as well. Finally, as we talk particularly about the national transmission planner and the respective roles of the national planner and the TNSPs - and we do see there's an important role for the national transmission planner in these arrangements, which I won't go into now - that accountability for transmission investment, ownership and operation remains with our network companies, consistent with the government's arrangements that COAG has put in place today.

That's really all I wanted to say at this point, that as we go forward these are principles that we think are important that we just keep in mind and test any proposals for change against. I'm happy to say perhaps some more later on the specifics as we get to that point on the agenda.

**JOHN TAMBLYN:** Thank you very much. Clare, could I ask you to speak for the ESAA.

**CLARE SAVAGE:** Hi. For those of you that don't me, my name is Clare Savage. I'm currently the chief executive officer of the Energy Supply Association during Brad Page's absence. I think it would be fair to say that I agree with the principles that Rainer has set out there before, but I was just going to briefly touch on I guess each of the material issues that the AEMC has identified in its review. I think it's fair to say that the ESAA supports the AEMC's proposed approach, which is actually separating out what they consider to be the more substantial market design issues from those that can be managed through the rule change process. So we think that is the appropriate way of dealing with his review. We do think though that there will be a need to consider the impact of the CPRS and the expanded renewable energy target throughout time.

There's going to be a series of short-term transitional measures, and this review is certainly focused on those in the next few years, but we consider that there may be a need to look at whether there are longer-term measures that could also be necessary once carbon markets are functioning effectively. ESAA also agrees with the AEMC's categorisation of those material issues. We think they have picked up the right issues as..(not transcribable)..and we're strongly supportive of - as Colin mentioned today - the view that electricity distribution network issues need further consideration and should be included on the work program. That was something that the Energy Supply Association was quite strong on in its submission to the AEMC.

Just touching on the first issue that Colin talked about, which was the short-term management of reliability, I think it's important to just note that both the AEMC and the system operator are probably quite limited in what they can actually do about short-term reliability issues if demand was to significantly exceed supply. The NEM, as you all know, relies on investors actually responding to wholesale price signals and there are a number of policy issues that have been in play for the last few years that have impacted on that generation investment coming forward perhaps in the most timely manner. The concept of NEMMCO actually establishing a panel of reserve providers that can be called upon at short notice, we think that probably has merit.

It would enable a reserve trader arrangement to actually be enacted more quickly than is currently the case, and to be used in response to unforeseen events. We support the use of distribution connected onsite generation, although we think that the additional response is not likely to be significant in terms of if you have a significant shortfall in supply. We think that there is a need though to resolve the technical and registration barriers that potentially currently exist for actually enabling that to come into play.

We don't actually support the creation - and I think that's consistent with what Colin said before - of any sort of central investment body like NEMMCO coming out and purchasing large slabs of generation for reserve shortfalls, although we do think that the AEMC needs to continue to consider and satisfy itself that there aren't any longer-term supply issues going forward, and that the current market arrangements will deliver timely investment as required. The current uncertainty about the timing and the impact of the carbon pollution reduction scheme is really the major impediment to new investment.

The ESAA does support the introduction of the CPRS, but we do think there are some significant amendments that need to be made, in particular around ensuring there's an adequate supply of administratively allocated permits to coal fire generators to ensure that there's no additional risk premium or investor confidence issues in our sector. So implementing the emissions trading scheme and offsetting sovereign risk through the provision of those permits will be necessary to encourage new investment in the NEM. I appreciate that's not something the AEMC can do anything about, but it's something that is of a serious concern to us.

Connecting remote generation, we do think there's a scope to - we do believe that customers could potentially benefit from an arrangement where you would actually allow scale economies to be realised, but like Rainer was saying, we think that really needs to be market-led. They should be realised basically through having multiple generators connecting in remote regions through time, so essentially you could be in a situation where perhaps not all the potential projects are there on day one, but if across time there would be benefits in having a larger asset then we would be supportive of finding a way to deliver that in a cost-effective manner. The hub proposal that the AEMC has discussed in its interim report does actually overcome the problem that no one entity may be willing to carry that risk of building transmission assets with the initial surplus capacity.

However, we are a little bit concerned that the proposed arrangements involves a degree of complexity for a new category of transmission assets and would require the national transmission planner to identify what they're calling..(not transcribable)..zones and for the network service providers to actually determine what an efficiently sized project might look like based on forecasts of the likely timing and size of new generation entry. So we think there probably needs to be adequate safeguards for customers so that they're not left carrying the bill for an underutilized asset.

One option would be for the AEMC to explore how you allocate some of that investment risk amongst both foundation generators and network service providers, but I would note on that last point that if you were going to allocate any additional risk to network service providers you'd want to make sure that that risk weighted return was taken care of in terms of their revenue requirements. The AER is probably the right body to have a role in approving the..(not transcribable)..projects, given their role in

determining transmission company's revenues. In terms of the efficient provision and utilisation of the transmission network, this is always a particularly controversial issue for the ESAA, so we'll say that further modelling work is needed to get a better understanding of the possible timing and level of network congestion.

It does seem to be something that all of our members are concerned about. Getting a real handle on how that will look going forward is something that I don't think we as an association have been able to come to a position on, so I wish you luck, John. But the modelling will need to look really at a range of scenarios both at the subregional level, taking into account network capabilities, investment plans, obviously uptake of new technologies, load growth, gas availability - all those key variables. Where congestion is actually considered to be a material risk, and it's been demonstrated, we think there probably needs to be a way of actually pricing and allocating that risk amongst existing and new generators, at the point where the congestion is material.

The solution to a congestion problem actually might require a mix of policy responses, and maybe where we've been thinking about it today it is in terms of one or the other. We do feel as an association that there is a degree of uncertainty within the industry around what the original intent and interpretation of clause 5.4A of the rules is - I can see a couple of my members nodding out there - which actually relates to the negotiation of new connection agreements. So what we would do is we'd invite the AEMC to actually comment on the purpose of clause 5.4A and whether they think any changes in the rules are necessary to make it a more effective tool for managing congestion. Going forward--

**JOHN TAMBLYN:** We can comment on that, I believe.

**CLARE SAVAGE:** Good. We'll look forward to hearing that. Retail market issues, this is probably for us the biggest issue that's been identified by the AEMC in its first interim report. Our view is that retail price regulation is probably one of the biggest risks to the viability of the energy markets going forward, and particularly under a carbon pollution reduction scheme. The ESAA has long had a view that retail price regulation is inappropriate and it's unwarranted because of the competitive nature of retail markets, and we strongly support the AEMC's finding in its first retail report that retail price regulation is probably unlikely to be flexible enough to manage the changes of a carbon pollution reduction scheme.

I'd note yesterday that COAG accepted the Ministerial Council on Energy's recommendation around amending the Australian Energy Market Agreement to enable cost pass through. However, I would say to you that I think that decision is still problematic. I think from our perspective when we look at how retail price regulation would have to operate if it was to continue to operate in the environment of a CPRS, you really have to throw all the rules that you currently know about retail price regulation out the window. For those of you that were involved in Market Start you'd remember how the market operated at that time. With the introduction of a carbon pollution reduction scheme we expect that the carbon markets and the energy markets, as they become one, will go through a similar period of upheaval.

Retail price caps - I just want to also make a point. When we say retail price regulation should be removed and that consumers should face the full cost of their

energy consumption I think it's important to remember that when you're talking about managing emissions going forward and incentivising people to use energy appropriately, price is a really important signal in that process. We're not shying away or refusing to recognise of course that low income households will have difficulty in that space. We do think that there's scope for government to provide those consumers with considerable assistance through the process, but I don't think managing or suppressing a price signal is the way in which to do that. Direct assistance, energy efficiency programs - these will be things that will actually assist those customers throughout the transition.

If retail price caps are to be retained though, we think there needs to be a consistent national framework that will enable cost-reflective pricing and full pass through. I guess, in our view, the risks and consequences of under-recovery far outweigh any concerns around over-recovery. Competition in most jurisdictions would actually provide a safeguard for consumers. But if you actually do put retailers in a position where they can't recover their costs - and I think Colin was right to mention the Californian example - you can't allow everything to rise right through the chain and sit on the end and hope that you will actually get the investment signals to flow through and that retailers will be able to continue to operate in the market. I'd just sort of say to you too that talking about 12 monthly reviews of retail prices is likely to be too slow, particularly in the early years of the CPRS.

The wholesale market will be very dynamic, the contract market may be different to what we've ever seen before with a reduce level of contracting if generators are trying to still understand how the CPRS is impacting their assets, which will increase wholesale volatility and the risk to retailers. So I guess our perspective is, if you're going to think about retail price regulation, then the AEMC really needs to think about more timely price adjustment measures for those jurisdictions that do choose to retain retail price caps. Examples could be reopening determinations - I mean, there's a whole host of things that they'd have to look at - a black energy cost, a green energy cost, the risk profile for retailers. From our perspective it's unworkable, but there's a number of issues that we need to think about.

**JOHN TAMBLYN:** Clare, thank you very much. David, could we ask you now to speak on behalf of Major Energy Users group. David Headbury I'm sure you all know.

**DAVID HEADBURY:** Thanks John. It's good to see a lot of friends here, and some others. Just running through - I think we need to go back to basics. The energy market frameworks - we want to have an economically efficient way of providing energy, no argument. But let's recognise that the CPRS and the ex-RET are major interventions in that market. No, you've all heard me say it before - consumers pay. We've got to look at the most economically efficient way of getting the outcome and accommodating these policies, but we still want them to be efficient at the end of the day. The most efficient, and not necessarily one that just accommodates the change. That means we don't have to assume that the current structure is right. That really hasn't been tested. There's just been a broad assumption made that everything is okay, she'll be right, we can tweak things on the side.

Just running through this quickly. This is a table, it looks at the issues and what the outcomes are, and the one that I want to stress is the issue of convergence and the issue of arbitrage between electricity and gas, and I'll come to that - sorry, there's the

table. I'm just about to leave that, but I just wanted to mention that arbitrage between the gas and electricity markets is a major issue, and it really hasn't been properly addressed. The assumption has been made that the markets are okay, we can accommodate CPRS and ex-RET, and we just need a bit of tweaking. Unfortunately, I don't agree with that. Why I'm hurrying through this is that John's got his pen right next to the glass and is just about to clank it.

**JOHN TAMBLYN:** You come with a reputation, David. Keep moving along.

**DAVID HEADBURY:** I think the issues for us is what hasn't been looked at. As I said before, we've got massive interventions and what we're going to see as part of this is we're going to see more base and mid-rank gas fire generation, and that's going to lead to some network stranding. We haven't looked at how that's going to be managed. We need more gas fire generation to back up intermittent generation. We need more connections and augmentation of the gas and electricity networks. Some of that has been addressed, so I won't go too hard into that. But one outcome of this is going to be we're going to see a lower load factor on our assets, and that implies on a per unit basis of energy we're going to see prices go up, because we're not using the assets as well as we could.

We're already seeing reduced thermal efficiency in the NEM. This is some work done by Rob Booth, his last report before he died he actually did the analysis. That, if you think about it - reducing the thermal efficiency means we're going against the principles behind CPRS and ex-RET. As we've already discussed, we're looking at changing the locational signals for new generation and in fact that's watering it down and lumbering consumers with a bit more of the risk. We've looked at the headline cost for CPRS and ex-RET and Garnaut and Treasury have done their bit, but the associated costs that come with that have not been looked at by anybody. So when we go and augment something and then lumber the consumers with a lower load factor network we're actually going to pay higher prices for it.

CRA, in its report to the reliability panel, pointed out that South Australian blackouts could increase, and they cited one scenario that there'd be four times the number of blackouts lasting for the next eight years. That's not really good enough. Rainer talks about the increased reliance on gas and the catastrophic failures that might come out of that, and we don't really look at the impact of that on the electricity market. CRA talks about increased volatility in gas and electricity prices. That's another thing that's going to come, and we're going to pay a higher risk for management of those higher prices. We've already got concerns about reliability - for those who live in South Australia and Victoria in the last summer we actually did have blackouts.

So we're actually seeing some real problems at the moment, and the question really is, is the energy-only market structure - which is intended to provide for the reliability we've got - is it going to be good enough when we go to the CPRS and ex-RET? We're already seeing again liquidity problems, or illiquidity, in the NEM and the Vic gas markets, and these increased risks are going to reduce that liquidity further, and that hasn't been looked at. One of the other issues of course is that if we start increasing the costs for running our markets we're going to see companies like Nista who have said - you know, \$40 for the CPRS, they'll just shut down the shops in Tasmania and South Australia. BlueScope is now saying it's all getting too hard, we're

going to build our own generation, and other companies, cement industries are importing more and more clinker because it's too expensive to make it here now.

That's economically inefficient at the manufacturing and the consumer end, and we're not really looking at that issue at all. CRA provided a very heavily conditioned report on reliability. "Theoretically," it says, "An energy-only market should work, but" - they then go on to say that only a limited number of investments are driven by market incentives. Where are the other ones coming from? It's usually from government intervention, such as in Queensland where generators are being actually built by the government owned enterprises. One of the things that we do have to look at is that the performance in the South Australian market doesn't really give us confidence that timely investment is going to occur, and then we'd draw your attention to what's happening in the WEM where there's lots of new capacity being provided.

We're worried about a significant increase in within day shortages. We've got to have a way of being able to manage those better than we do at the moment, and yet CPRS and ex-RET are going to make it harder. The new generation mix mightn't provide the standby that's needed - you know, we talked about that - so we've got to have a commercial incentive to do that. So we're talking about increasing the reserve trader process, and yet I'm old enough and long enough in the tooth in this electricity market to realise that in the electricity code we actually had a sunset clause - I think there's about three or five years on reserve trader. We've still got it, we keep on extending it, and now we're talking about making it bigger. Doesn't this indicate there might be a problem, and it's going to get worse under CPRS and ex-RET?

What are we trying to do? The whole purpose of this massive government intervention is to reduce the carbon footprint. But we're already having problems with meeting it now. We're going against the desire to have a lower carbon footprint. We're talking about more demand-side participation. Well, yes, we just had a report that just came out yesterday talking about what might be able to do. But in fact if you look at the rules and the pricing structures at use particularly in the distribution networks they actively militate against DSP by consumers. You still have to pay the full network charges, and let's bear in mind that network costs are a good 50% for small consumers. Allowing generators to be stuck out in the middle of the boonies, we're going to increase losses. Again, that goes against our carbon footprint. We've talked about and heard already from the ESAA about retail competition.

But just let me share with you something that came out of discussions I've had in the last couple of weeks. Large consumers - and again it's in South Australia - are saying, "Things are so bad in South Australia, you can't get a hedge for love nor money, and retailers are looking at very attractive loads and saying, 'Terribly sorry guys, we just can't give you an offer.'" And so what we're ending up with is very, very limited competition in South Australia. We're very concerned. Everything says, "Yeah, the systems are okay, but we'll just tweak a little bit here and there." But no-one has had a look at what the cost implications are going to be for these tweaks, and what is that going to mean to consumers. We've looked at the headline costs, but we've not looked at the associated costs of trying to achieve the accommodation of the CPRS and ex-RET.

We've already had consultants - that gas prices are going to rise, and that's going

to go against more gas firing. We're going to be in trouble. How are we going to back up all of this intermittent generation if gas is too expensive? One way of looking at these associated costs is it becomes a tax; a market tax on all energy consumers. What we really need is the AEMC to actually have a look not only at the risks that are being looked at, but the costs that are going to be associated with managing those risks, and how - we talked about how those costs will get recovered, get consumers to pay for it again. But what are those costs going to mean to consumers, those increased costs? We really need to have a look at that. Reliability of supply is a risk, and it's going to get worse.

End users, big manufacturers, can't afford to have lights going out, because it can have major problems to their manufacturing processes, and the costs associated become horrendous. If they go and put in their own supplies of power, for instance, then what we're going to see is their operational costs go up again. So I guess our main concern is that the AEMC must include in its reports to the MCE what the costs are going to be, what the increased risks are going to be, and how are we going to pay for those, and also point out that reliability is likely to suffer a bit. In fact, that's one of the points that's made in the report. There you are John, I wasn't too bad this time.

**JOHN TAMBLYN:** Thank you, David. I appreciate your cooperation. Now can I just ask Jo Benvenuti, representing the consumer's roundtable. My apology, Jo, for not giving the floor to small consumers earlier. Would you like to make some remarks from up here? Could you join us then? Thank you very much.

**JO BENVENUTI:** Thank you, Dr Tamblyn. I do appreciate the opportunity to make a few comments this afternoon, but I do note that we were concerned that small end consumers were left off this stakeholder section of the agenda. I'm aware that we do have a voice later on in the afternoon. But consumers have been concerned about the balance in participation and we have previously raised that with the AEMC on the advisory committee on this particular topic. We are one voice, and we think that we're a very big voice in the community, and that also the AEMC's objects are to make the market function for end consumers. So that's one of our very important issues. We are nonetheless pleased that the AEMC is currently reflecting on these issues of consumer consultation into the future.

In relation to the discussion paper, we were pleased to see the shift in the AEMC's view in relation to price deregulation in that it's not necessary to deal with wholesale price uncertainty, and also the shift - that there is some recognition now that short-term reliability is likely to be a significant issue to be dealt with. However, we were concerned that the review failed to consider the customer protection framework to handle the cost of the CPRS and RET, and whether vertical integration in response to CPRS and RET pose a threat to competition. Our concerns were reinforced - and I suppose, David, sometimes we do have an amazing alliance of minds, and some of the things that you were saying before were ringing true.

Our concerns about these issues were reinforced with the release of the national energy customer framework yesterday in which we are concerned about a decline in customer protections at this time when customers may be facing price volatility and in a period of significant global economic downturn, because some of those areas we're concerned are about a decline in market conduct protections around explicit informed

consent, about allowing late payment fees in these periods, about the decline in hardship provisions and particularly protections relating to disconnections of customers, and we think that these issues need to be addressed in every review the AEMC does, because it's timely to review customer protections against the reviews the AEMC is conducting in order to ensure that the customer protection is robust in that context.

Finally, in terms of the future decisions of the AEMC, we recommend that there is thought given to the real threat of effective competition posed by vertical integration and the threats of CPRS and RET combined with financial liquidity and increasing gas prices. We also recommend that the AEMC take proactive measures to head off these risks on behalf of consumers and so avoid a reliance on reactive measures that might be brought into power by the ACCC, and instead be more proactive about enforcing competitive behaviour within this context. Thank you, Dr Tamblyn.

**JOHN TAMBLYN:** Thank you very much, Jo, and once again my apologies for not giving you an earlier slot. Now, can I open up the floor to the forum for general comments, questions, issues you want to raise either with the AEMC or with members of the panel. I'd just ask you to stay there and there may be comments that you want to make. Can I just make this particular comment - our terms of reference require us to focus on the energy market frameworks. That is, the legislation and rules that govern the operation of the markets and the regulatory framework.

It is evident that there will be significant structural change and adjustment that will be driven by climate change policy through the energy markets and elsewhere. We are focusing on the frameworks, the design of the market. That's the issue that we have to address. Can I now open up the floor for any comments and questions which you'd like to raise with us, and we're very keen to hear your views. So who will open the bidding?

**BILL LAYER:** May I first say I'm very encouraged that the AEMC will consult with us on the DNSP issues and am absolutely happy that the ESAA supports that. Separately, there's one high level matter I'd like to raise today, and that is, we'd like to see the AEMC acknowledge what we see as a major step change in the electricity market, and that is the establishment of smart or intelligent networks. We see that these are crucial to the delivery of the government's climate change policy outcomes, because what they're going to do is enable all the operators in the energy market to communicate in real time and respond in real time to changes, and in that way address some of the real challenges that the quantum increases in less reliable intermittent energy generation are going to bring to the market, and into the volatility of price signals that will be the outcome of the CPRS.

We understand that this is going to be a very large investment, maybe \$50 billion over 10 years. We're concerned in this kind of world economic climate - we're also concerned what happens this afternoon at 4.30; I won't say what that is to anybody - that perhaps there are real impediments to the rollout of this smart or intelligent network over the next decade or two. In fact, it's already starting. I would call the smart meter rollout as part of the first stage, and there's already some of our members that are doing early and initial tests on smart networks in their respective jurisdictions. So what we'd like to see is the AEMC look carefully at the rules to see how these might be changed to meet the real challenge of rolling out this major investment, which is not unlike, for example, the national broadband rollout in its significance.

It's a real change for us. I'm ambitious in saying that, of course. So let's hope that AEMC looks at this and keeps this in mind into the future, that this is a challenge that may have some very, very significant changes to the rules. Thank you very much.

**JOHN TAMBLYN:** I'll take that as a comment, and thank you for making it. You will see in our discussion paper that we've acknowledged the issue. We have said you could think about this matter in two ways. The frameworks are perfectly able to accommodate new significant investment arrangements, or there may be features about this which require some further stimulus. We will look further at the issue, but can invite the ENA and its members to identify the particular issues that they think are of concern, and the way the rules might be changed to remove obstacles or to improve the climate for that. At the moment we're acknowledging the issue. We don't see where the framework obstacles are, and I think the distributors are well placed to put information into the review that would help us with that question. So we invite you to do that, and we'll talk with you to see if we can see an issue that we need to deal with.

**IAN WOODWARD:** Can I just raise a follow up on that, both to the ENA and also to the consumer organisations. The smart grid and intelligent grid and intelligent network areas are a significant part, not only of looking at our market, but other markets around the world. The numbers coming out of the United States in the last five days on assessments are around \$900 billion proposed investment strategy in this area over a 10 year period. So they're very, very significant amounts of money. I think the two things that would help the AEMC in being able to assess this matter is firstly an absolute identification of where the rules themselves act as an impediment as opposed to rule change processes that could put forward new rules to deal with that technology. Secondly, at a policy assessment, particularly the views of consumers related to that quantum of investment in the marketplace.

**ALLAN ASHER:** Allan Asher from the Effect Markets Foundation. A comment that also has a question for Clare, and it's premised on the experience of the UK in operating a market that does embody carbon prices and prices from renewables that goes back now five or six years, and for Europe now two and three years deep, and that the proposal on retail I think was quite crisply summarised by Clare, which really amounts to a swift way of passing through price spikes from carbon price increases, and indeed consumers will need to accommodate that, otherwise a California-style problem or the sorts of problems we see in Western Australia - not through carbon increases but a failure to adjust prices.

But the European experience also shows us the opposite problem too, that that's all very well if one did have a vigorously competitive and effective market, but in Europe that's not the case and the market in Australia is heading in the same way, with more vertical integration and the granting of free allocations, there are lots of windfall possibilities there and anticompetitive dimensions of the market that I think leads to this being a bit of a one way bet, looking for ways of prices going up, but I would urge, in your advice to ministers, that you also consider the opposite. After all, in the European scheme, in the first phase the carbon price fell to zero when it became clear that there were over-allocations, and yet the opportunity cost of all of those free allocations remained in consumer prices. The same thing has happened recently with carbon prices falling to 11 Euro with the collapse of demand.

On the other hand, there have been spikes. I think everybody can see that, when there was the global commodity boom, et cetera. So I urge that you consider also the stickiness of the market, the absence of an effective forward market and competition, so that this very same resale price review can take away from the vertically integrated bodies unjust enrichment when prices fall.

**JOHN TAMBLYN:** Allan, thank you for the comment, and we'll take it as a comment. Certainly the initial discussions we are having in this area is recognising the point that prices need to adjust flexibly in both directions, and we need a methodology as well as principles to allow that to happen. It's a challenging issue to operationalise, but the point is on the table with us, and thank you for making it. Other comments or questions from the floor? Yes.

**BEN SKINNER:** Colin, just a question--

**JOHN TAMBLYN:** Could you just identify yourself, Ben.

**BEN SKINNER:** Sorry, Ben Skinner from NEMMCO. Just Colin, you didn't mention issues of the prudential and roller frameworks for the NEM. Just in the context of wholesale market price increases that are expected, and possibility volatility increases, did you have the conclusion that the existing frameworks associated with those areas would be satisfactory to deal with them as that occurs?

**COLIN SAUSMAN:** I suppose the first observation is the prudential costs are a big part of the overall cost impost as a result of CPRS, so it extends volatility increases and part of that will be higher prudential costs, and that just sort of accentuates the risk that we're talking about on retail. We didn't actively investigate the prudential frameworks and investigate ways of changing them as part of this review, primarily because there's a number of processes going on in other spheres which are doing precisely that. So I think it's one of those areas where we need to look over a fence and be aware that work is going on to test whether prudential costs are unnecessarily high because of the inability to offset between the NEM and other markets, but that's work in progress, and it might condition what we recommend, but it's not actually part of this review.

**CLARE SAVAGE:** My understanding was that work on prudentials had stalled, so are you aware of what's going on with that?

**JOHN TAMBLYN:** No. Within the MCE process a reference is being developed and a process is being developed, and I think it's still in that engine room as far as we know. Before we go on, could I just - rather than pontificating here - could I just ask you, Clare, if you had any observation to make on the point that Allan Asher had raised?

**CLARE SAVAGE:** Sort of. I think that the comments that you made about vertical integration have been addressed in this country by the ACCC, by the AEMC in the past, and I think the view that the energy reform implementation group in particular came to was that it's not about vertical integration, it's about how you get - whether you've got enough vertically integrated players to maintain a competitive market, and I think the view in this market is that we do have enough vertically integrated players to maintain a competitive market. That said, I note that retail competition is important and that the viability of small retailers in that space is important to maintain competition and

competitive pressures.

I personally believe that retail price regulation can act as a barrier to the competition in those markets, particularly by small retailers when you use large incumbents as the cost benchmark. Also, I think when you have a tendency to basically not provide - to have prices in some jurisdictions that are below cost, so that's obviously a disincentive to--

**JOHN TAMBLYN:** Just the point on flexible adjustment of prices in both directions, what's your thinking and observation on that point?

**CLARE SAVAGE:** Well, I mean the price is the price, so from the perspective - we would be of the view that a competitive market would deliver a competitive price, regardless of price regulation, provided the price cap is sufficiently high to enable that. So from that perspective I don't see why any - if there's a decrease in the carbon price that wouldn't be passed through to consumers.

**JOHN TAMBLYN:** Thank you. Other comments from the floor, or observations? There's a lot of material here to comment on.

**IAN WOODWARD:** John, can I just add some detail. Just one matter that Colin made brief reference to in going through is some of the work the reliability panel is obviously doing on matters that interrelate to the climate change review, but also other things. We've been looking very closely at the reserve trader arrangement within the market and its operation not only from a perspective of carbon policies but also its ability to be able to deal more effectively with short-term emergencies. As many of you would know, the current arrangements for reserve trading tend to look out six to nine months, take a view about where reliability and the reliability capacity setting is, particularly coming into summer, and NEMMCO at the moment, and AEMO as it will be, takes a decision about trading.

The panel has been thinking about this and believes that there may be value in having a much more flexible set of arrangements that allow for reserve trading up to a 12-hour and 24-hour position, under different circumstances. We want to test some ideas with the marketplace, so tonight the panel will release an exposure draft of a potential rule change, a set of guidelines and a policy paper on how this thing could actually work. The reason I raise that specifically here is that it's very easy when we're looking at a lot of these issues to be looking at broad principles, but at the end of the day one of the core functions of the AEMC, and one of the core directions to us from the ministerial council is to look at the rules themselves, and a lot of these instruments are ultimately represented in the rules.

So the panel, in putting forward some ideas at this stage - not saying we'll ultimately go ahead with this - but to get detailed and deep consultation from the market, from consumers, from producers in this marketplace, we've got an exposure draft coming out, and that will be available on the AEMC website tonight.

**JOHN TAMBLYN:** Thanks Ian, very much. Let me ask again, comments?

**JEFF BOTHE:** Jeff Bothe from City of Greater Bendigo. I feel a little bit sort of out of

this sort of sphere, but I'll do the best I can, given I'm not directly involved in the electricity industry. It's also how are you going to manage a pricing risk - it's been touched on already with regard to reliability and blackouts and that's expected to increase. We were an area that were impacted by bushfires and - along with many other areas of Victoria, and there seems to be an inability for the system to provide the forward notice for that to happen, that allows business to sort of cut down their operations, stop their operations. It's just out, and you're out, which is not really a fair and reasonable thing for business. If it's going to be turned off, it needs to have some sort of advice in there.

And secondly, as part of that risk management, having embedded generation incentives - have incentives for embedded generation so you're putting in a structure across the national electricity system that allows regions to start to look after themselves in this process. Now, we might be a bit unique in Bendigo, but I noticed the mention to BlueScope Steel and having their own generation. We're working with three business already - are looking at having local generation as part of our supplies. So if we're doing three - we're not sort of exceptional in any way, shape or form - I'm wondering how much other stuff is happening around. So I guess that's the question and comment.

**JOHN TAMBLYN:** Well look, they are very relevant issues you raise, so certainly don't apologise that you're not in this space, you are. Can I make these couple of comments, and the other Commissioners might have a couple of comments as well. First of all, we have been asked by the MCE, and we're awaiting their terms of reference, to look at the adequacy of the reliability arrangements in the electricity market to be resilient to the potentiality for more extreme weather events. It was really arising out of the late January events in Victoria and South Australia. So a deeper examination of the reliability settings with a view to making sure that reliability is maintained at the level of the standard, as opposed to going outside that, is the purpose of the review. And we'll integrate the work we do in this climate change review with that particular review.

But there will be analysis, consultation and then recommendations back to the MCE about whether there needs to be adjustments to the reliability arrangements in the market. Turning to your comments on embedded generation, as I think David Headbury just observed, we published yesterday a draft paper on demand-side participation opportunities in the national electricity market, looking at whether there were disincentives for the efficient participation of demand-side opportunities in the market, including embedded generation, or whether the rules could be adjusted to give better incentive for demand-side participation, including embedded generation.

Now that's got a little way to run, but whether it then comes out with changes to the rules which better facilitate and make clearer to local investors who might be looking at local generation, how that can be dealt with, what incentives there would be for that, and what a cost and pricing arrangement would be, at least that issue is now on the table and you might look at that report and engage with our people at the AEMC if you've got particular issues you would like to raise or you think we have not focused on the issues as you're seeing them in your region. So there are two related reviews that bear on similar material that we're dealing with in this climate change review, which is taking a much wider view of the arrangements right across the market, whereas those other two reviews are more specialised and deeper in the way they are looking at those issues.

So there are a couple of forums where the issues that you're concerned about are being considered, and you can engage with those forums. So thank you for the comment. Anything else from the floor? Yes.

**ROB JACKSON:** Rob Jackson from the Clean Energy Council. Taking up that point about reliability, we've heard a lot today about reliability, and you mentioned the late January issues. But to best of my memory - and it goes back nearly as far as David's - most of the major issues on reliability that we've seen in the NEM to date have been caused by issues in the transmission system, not by lack of generation. The same happened in January; it was the transmission system. We're likely to see as a result of these climate change policies a lot of new generation, as you've said, remotely located, which will put more stress on the transmission system. Are you looking at the incentives for improved reliability on the network systems to actually make sure that that generation can be brought to market at all times?

**JOHN TAMBLYN:** I think the short answer is yes. The reliability review that we are anticipating from the MCE recognises, according to the discussions we've had, that delivered reliable supply relies both on the availability of generation capacity and the capacity of the network to deliver it to load, and so both aspects will be considered - certainly as far as the transmission system is concerned - in that review. Equally, Colin referred to the further work we're doing on the question of congestion in the network, and we'll discuss that further after the break, but the question of network performance and incentives, as well as generation location and timing and type, are all issues that we are looking at in that context as well. So the answer, yes, they are on the table. How far we can take them remains to be seen, but we're aware of the point you've raised. So thank you.

**CLARE SAVAGE:** Sorry, I was just going to say to you too, John, obviously how much the - or what sort of position the transmission and distribution businesses will be in in terms of making those investments going forward will be determined in part by the AER's decision today on the weight of average cost to capitals. From our perspective, an inappropriate level - or, you know, inadequate return on those investments would hamper their ability to make those investments.

**JOHN TAMBLYN:** Well, as someone observed, we'll all look at the output of their review with interest, but as far as the framework is concerned we have a process and we have a regulator, we have guidance to that regulator, and we're assuming in a very difficult circumstance the regulator will do the best job he can.

**CLARE SAVAGE:** But the framework could be amended to accommodate merits from him.

**JOHN TAMBLYN:** That may be a policy matter or a rules matter, but there are mechanisms for raising that issue as well. But thanks for the observation. Now, anything else to raise in this session? The question was raised, "Are we going to allow time for discussion of the matters that were not clear in our first interim report needed further work?" Are there any observations on those matters and the further work that Colin had identified we are proposing to do in those areas? I think David made some observations, for example, on the long-term reliability question, but are there any other points people would like to raise? Yes, second row.

**ALLAN ASHER:** Thanks, it's Allan Asher once more. I had just one area that I thought - there was some movement between the first interim report and today's discussion paper; that was on the convergence between gas and electricity markets, and I think that even though there is some greater recognition of potential problems, I really don't think that the discussion paper properly comprehends the magnitude of the change that's likely, and the background papers have pointed out that we'll be moving from an expected 2 petajoules or so of consumption of gas in the eastern states to something like six - that's to drive the substitution for coal fired generation. But it's just obvious that is going to mean that the eastern states moving into not just a huge increase in the use of gas, but it's going to be gas from entirely different sources.

It's going to be sourced from a globally effected LNG market and the characteristics of that are quite profoundly different, the price volatilities and all those other things. So to the extent that you recognise there are some differences and some risks, and as David spoke of risks of some inefficient arbitrage decisions, I think it's just a much, much bigger issue than the paper seems to suggest, and could have the ability to quite destabilise the effective operation of markets with severe impacts of price.

**JOHN TAMBLYN:** Well Allan, those points were made I think quite cogently in the submission that you put forward. What we are groping for, beyond the point that there will be very significant transformation driven by climate change policy, where are the energy market frameworks going to impede or fail to facilitate that transition? What would we do to which rules for what purpose to better facilitate that very major transformation? And we are not persuaded that market participants and others, including your own submission, has identified where the obstacles are, or where the stronger incentives might come from which would still drive efficiency in that very major transformation. I think the same observation I can make to some of the comments that David made.

Yes, there are going to be big changes in structure, investment, cost and price, and there may well be transition difficulties. Where should the rules be changed to better facilitate that? That's the question I guess we put back to the forum.

**DAVID HEADBURY:** Seeing I've been quoted, I think one of the issues that we see coming out of the convergence between gas and electricity and the issue of arbitrage is the impact on the consumers when such an arbitrage event occurs. In electricity, when there's a shortage of gas the shortage is virtually socialised - you know, a whole block of people is just shut off and everybody, whether they're a big consumer or a little consumer, they all catch it the same way. But when you start looking at the impact of gas, that is not what happens.

When gas is constrained, it is always the large consumers who are constrained off, particularly gas fire generators - when there's a shortage of gas, they're usually first cab off the rank and very closely along behind them are the very large gas consumers, because it's easy to turn them off, and easy to check that they've been turned off, and that they haven't done anything wrong. So what we see now, when there's an issue of gas being redirected in the market to supply an electricity issue - or it doesn't even have to be electricity, it could be a gas issue. For instance, we did see this happen in 2007 in New South Wales in June, where gas was redirected into another region and the New

South Wales large gas consumers were constrained off. Nothing to do with them, but it was because they are easy to turn off and that the network was at risk that that occurred.

So I think what we've really got to look at within the framework - and this is where we come back to the issue of arbitrage - is there is a movement of gas because the price of electricity is high in Victoria for instance, which is what the market says at the moment, it is always going to be the large New South Wales gas consumers that get caught. Now that is not equitable, and so the framework has to look at a way of being able to address that issue, because if you always make the - no, in that case the large gas consumers in another region suffer because the markets say, "Well, that's where the gas ought to go." The people who are doing the hurting aren't the ones that are benefiting from the process. Others are benefiting to their detriment, and when a gas consumer gets constrained off they don't get any recompense at all.

No, "Turn off your gas, guys, and there's no money coming to you to recompense you for the inconvenience." So there's got to be some way of being able to make that work, and whilst the short-term trading market might do a little bit of that, the issue of the CPRS and particularly which is going to require more and more gas consumption is going to make this issue much more open and have much greater impact.

**JOHN TAMBLYN:** David, I think that's a very helpful comment. Thank you for it. Colin, would you like to comment on that? I have the sense that the issue we have discussed is heading down that path. It may not go quite as far as the comments David made. Do you have any thoughts on that?

**COLIN SAUSMAN:** I suppose I'm trying to draw a comparison with the electricity markets, so the circumstance he described is a bit like a NEMMCO direction, and there is a framework within the rules for compensation when directed. Now presumably you'd need to understand, "Well, what kind of contract do these interruptible customers have? Is it part of the deal of how they contract that they will be interrupted?" And if that's the issue, then that's not a framework issue, that's just a contract someone has signed.

**DAVID HEADBURY:** No, it's not a contract issue. What happens, for instance, in Victoria, VENCORP decides. In New South Wales it's usually Jemena, the network operator - it decides who's going to be turned off, when and for how long. And that has the support of government backing. And the same thing happens in South Australia - it's the network that decides there's a problem and how it's going to address that problem, and its contract - as a large gas consumer I can't not accept the distribution network - because there's only one - telling me that if there's a low gas pressure condition in the network, "I'm going to turn you off and you have no recourse at all to me because I've got government backing, and tough titties." And it's always you. You're always going to be first cab off the rank because I know that I can check you out and you have the biggest impact."

**JOHN TAMBLYN:** I take the point. I think you're making a good point. Ian, would you like to comment?

**IAN WOODWARD:** I think you were starting to clarify what I was just wanting to get a handle on, David, in those last comments. This is the circumstance where, for some

system security or network security, a large user is being disconnected or shut off as opposed to being shut off as part of an interruptible contract.

**DAVID HEADBURY:** There are no interruptible contracts now. With the whole change in the gas market, with the way it was reregulated, the retailers have no ability to give me an interruptible contract. Under the old system - under Gas and Fuel Corporation, say, in Victoria - I could get an interruptible - in fact, most large consumers were on interruptible contracts, and that's why they were top of the schedule. But we don't have that now, we're talking about security issues.

**IAN WOODWARD:** That's all I wanted clarified, so as when we're looking at this issue in depth we're completely on the same page.

**JOHN TAMBLYN:** And we have put on the table that the AEMO will likely have some further clarification of how these situations might be handled, and I think Colin is saying, "Look, in the electricity side we have reliability mechanism for short-term intervention which is structure in a certain way. How does that interface with what happens in gas?" Here's an issue that does need, I think, a little bit of further work. So I think we've got on the table, and I think you've elaborated it rather healthily, and we'll certainly give that issue some more thought and work. Now, other issues including the issues that we had not been clearly going to progress in our first interim? Any other points to raise? Yes, David.

**DAVID BOWKER:** David Bowker, Hydro Tasmania. Thank you John, I think it's a very interesting report you've produced. I wanted to raise a question with you around the scope of the report. You started off I think considering things that could not be addressed by rule changes. You seem to have moved into an area of a lot of solutions which are rule changes, and I think it would be useful for you to either address your paradigm or to explain in what way you think the sorts of things you're contemplating aren't rule changes. I think I'd sort of add the comment that you can actually do an awful lot with a rule change, so I'm not sure there's very much left if you exclude things that can be achieved through rule changes.

**JOHN TAMBLYN:** I get your point. Colin, do you want to comment on this?

**COLIN SAUSMAN:** Sure. I guess it's a matter of degree. As you say, you can do anything through rule change. You can redefine how the market is settled in its entirety through a rule change. That's a very big rule change, it would take a long time and might be preceded by some kind of review process. So to some extent we are trying to anticipate issues which are sufficiently large that if you were to pursue them through rule change you would end up doing something that looks a bit like this review. So if that's the case, then we think it's an issue which is fair game for this review. But if it's smaller scale - I mean, we're trying quite hard not to get drawn into the weeds, and if that's the case, "You don't need" - the MCE wouldn't thank us if we give them a list of 20 small rule changes as our advice, and I think that's entirely appropriate. But if we are heading that way, please tell us.

**JOHN TAMBLYN:** Did you have particular examples in mind, or is it a general observation?

**DAVID BOWKER:** No, it's a general observation. The short-term reliability is the kind of area that there's a couple of things that are rule changes, but they're reasonably large rule changes that may possibly come out of that.

**JOHN TAMBLYN:** The short-term reliability matters are being progressed through the reliability panel, and coming back to the AEMC for rule change, and they are - because they are being consulted - they are rule changes that can be put on the fast track process, and that's the framework, including its flexibility for adjustment, working, and so we don't see those as being problem areas for the framework. Where there are major matters, issues are raised for instance as to whether aspects of the market design or property rights might be reviewed. These are quite fundamental matters that need to be given a wider view. So we're trying to distinguish the ongoing rule change process and its flexibility from significant change to accommodate the impacts of climate change policy. Now there's obviously a grey zone, and you may be commenting on that. Now, other comments to make from the floor? Yes.

**SPEAKER:** ..(not transcribable)..ENA. On the issue of price volatility in the CPRS, in the rules we've got these five year regulatory periods, whereas looking at Europe, as someone else mentioned, you can get price spikes and prices dropping pretty quickly, and the question to you is, how will five year price resets interact with the price volatility of a CPRS outcome? Discussing it among our own members, we don't think just declaring an event is going to solve that problem, because of the complexities that involves in opening up a whole lot of other issues, so that is one of the matters we did raise in our submission.

**JOHN TAMBLYN:** You're focusing on distributors and their five-year reviews in particular in making that comment?

**SPEAKER:** Yes, I am.

**JOHN TAMBLYN:** Look, we'll look at that more closely. I think the whole question of volatility and how significant it's going to be remains a bit of a controversial question as well. But let's note the point and - that, and a couple of other issues that ENA has raised, we're giving some further thought to, to try and understand where you're coming from, and whether there's an issue we should deal with or not. So thanks for the comment. Anything else from the floor? Could I then ask Ian or John, is there any matters that you've heard that you'd like to ask of the panel a bit more elaboration or make an observation on what we've discussed so far?

**IAN WOODWARD:** No, nothing in detail except to come back to our colleague from Bendigo and also the commentary from the representative of the Clean Energy Council. The area around the discussion of reliability in the electricity market is a very complex discussion, and it's a complex discussion first and foremost because when we inside the industry - whether or not it's from the consumer side with a knowledge base of expertise or in the regulatory arrangement, when we talk about reliability we have some very specific meanings in mind. For most average consumers, the term "reliability" means something quite different. It's when the lights go out for whatever reason, and one of the elements of actually getting a debate on these matters I think over the next six to 12 months is going to get more information about the whole chain of interruption.

So in Bendigo, if your lights are going out it may be as a combination of matters that affected the distribution network, the transmission arrangements, possibly the adequacy of generation supply, but it may also be because there are security issues at some point in that chain that affect the reliability of supply. It's also affected obviously by the planning of that whole chain and the specific planning that is done within each part of the chain, which is done quite differently. A market basis for generation and a regulated basis for transmission and distribution network, and not necessarily even on a national basis.

So a lot of the debate here around reliability - I think one of the things that's incumbent on us in the AEMC, it's also incumbent on those who are participants in this debate from the interest stakeholders, is actually to start perhaps explaining this a lot better, because when we're talking about doing something on a reserve trading mechanism for a liability, somebody outside this market might think, "This is a solution, the lights aren't going to go out." That is not what we're talking about. We're actually talking about doing something that adds to one small piece of that chain.

**JOHN TAMBLYN:** That's a helpful comment, and this reliability review that we're about to get explaining what it is, what the elements are, and how the framework addresses that and what might be the weak points or areas for improvement, will be one of the issues that we'll deal with. Let's bring this session then to a close. Thanks for your participation. We'll take a break for 20 minutes, and return if we can at 20 past 3, so that's 25 minutes. The focus of the second session, or the session after the break, will be to discuss in more detail the four areas where we think material impacts will occur, and the changes we are thinking about. Thanks for your time, and we'll come back at 3.20.

## SESSION 3

**JOHN TAMBLYN:** Ladies and gentlemen, lets get the next session underway. And we've got a further panel group, which I would like to ask to join us up here. First of all, Rainer again from Grid Australia, Alex Cruickshank representing the National Generators Forum. Is it? Let me go back. Here we are. So, Clare Savage (ESAA), Mark Frewin, ERAA, Ben Skinner from NEMMCO and Tosh Szatow who is on the consumer round table but could I just emphasise that the consumer round table is a loose coalition and Tosh is actually speaking for CUAC, just to be clear on that matter. But we welcome your views anyway, Tosh. OK, well, look, we've got a couple of issues to deal with in this session. And once again we'll get Colin to give a very brief commentary on the details of those matters and then we'll get some commentary from the panel and then open it up to any comments from the floor. So Colin, over to you, I think, just to give us some background.

**COLIN SAUSMAN:** OK. Thank you, John. So the purpose in these sessions is to take the four issues that we've flagged as material in the first interim report and give people an update on where we've got to in developing options for change. So the new information here is, we've done some thinking, we've analysed the submissions, we've worked with the advisory committee and subgroups and we have some reasonably firm proposals emerging on what we need to do to address the issues that we've identified.

So the first one of these relates to the short-term management of reliability. So just, this slide here we can step through quite quickly. It is just a recap of what we've talked about in an earlier session, why we think it's a material issue, pre-existing types of high demand balance, and possibly a need to make greater use of the powers of intervention that NEMMCO have, observation that these powers of intervention aren't designed to deal with large chunks of capacity over a long period of time. It is meant to be much more selective, much more focussed, smaller volumes, so there is a question mark as to whether they're fit for purpose or whether you can actually improve them.

So we've actually got three options that we wanted to talk about here. I guess the main point is, these options aren't exclusive. We can recommend all three, and I suppose at the moment that is where we are heading. The first option is to do with this short-term reserve contracting. So currently NEMMCO has the ability, if it predicts a shortfall in generation adequacy, within nine months it can go to the market and seek offer for additional capacity, and long as the relevant jurisdiction is comfortable with the overall cost, it can effectively buy additional capacity, which can be used if required. And I think NEMMCO has done this a couple of times in the past.

So the question we wanted to examine was, well, do we need to refine that framework in any way. And one of the difficulties that were identified related to, what if you need to respond very, very quickly, in a very, very short time. The standard process is a tender process, so that takes a minimum of a number of weeks, so it's not necessarily to deal with things that happen in the very, very short-term. So in the very, very term, one of the tools NEMMCO can use is directions, which can be compensated. But there are some limitations around who NEMMCO can direct and who NEMMCO can compensate under the rules. And a bit of a gap there is unscheduled loads, so the smaller loads, under the current rules, cannot be compensated if they are directed. And one possibility is to modify the RERT, the Reserved Trader Mechanism, to provide a way to essentially have

a panel of people who can be called on at short notice. So you wouldn't necessarily be paid a great deal of money for being on the panel. But if NEMMCO called the option that being on the panel creates, then you would be remunerated. And that's a specific option that the reliability panel, Ian, talked about, it's going to be consulting on later on today. So keep your eyes out for that particular document. It's a manifestation of this kind of option.

These intervention mechanisms are deliberately short-term. The whole philosophy is, if you like, we don't want NEMMCO roving around in the market, buying additional capacity too soon, because it gets in the way of the market doing what we want it to do, which is to respond to price signals and profit opportunities to build capacity. So its deliberately in the short-term. It is demonstrably a distortion to the market. Ordinarily you don't want the system operator intervening, but the judgment has been made that it's an appropriate distortion if it's limited to the relatively short-term. Some options are to make it longer-term. So maybe NEMMCO could look a bit further out. Observation there is it implies a larger distortion. And that's obviously a bit of an issue.

The second option relates to accurately estimating the amount of demand response there is out there in the market. So there is an ability for large loads to participate directly in the spot market, become a scheduled load, put in bids and offers like a generator. Most loads don't decide to do that for a very good reason, and to the extent they do offer their services to adjust their load, it tends to be through a contract with a retailer or possibly a network business. So NEMMCO doesn't necessarily see the details of those contracts when it's deciding whether it needs to intervene in the market. So there's a risk that NEMMCO doesn't make its assessment on the need to intervene on the basis of the best information. Now how big a deal this is, it's hard to say. But it's clearly a potential source of bias in NEMMCO making the right decision. And it can work both ways. So NEMMCO could actually underestimate the amount of the capacity that's in the market, because it doesn't see DSP and therefore press the RERT button of intervene in the market too soon, or it could overestimate the amount of DSP and not intervene when it should do.

So we think there's an option, which seems to be reasonably straightforward, reasonably sensible to allow NEMMCO to have better sight of what the actual amount of demand response is in the market. This has a couple of challenges. One is, some might contend, though this is actually confidential information and whether I contract the DSP is my business. And it's not appropriate to tell NEMMCO my contract position, if you like. Another possibly more challenging issue is, that there are degrees of DSP in terms of firmness. If you have sold some DSP in the market and you tell NEMMCO what it is, there's a judgment that NEMMCO needs to make, "Well, how much can I rely on that as an actual source of capacity?" And it is not a straightforward task. If you think about the example of an option that a large load might sell to a retailer for a load to be curtailed a couple of times a year - and that's the information that is told to NEMMCO - well, how should NEMMCO interpret that? It's not immediately obvious. Will those two options have already been exercised by the time the capacity is needed? Don't know. And that will condition how you actually discount or allow for the additional plastic.

But the basic point we're noting is, there's a gap in the information that NEMMCO has available. If you are using these kind of mechanisms more frequently, then you want them to be applied accurately. Therefore improving the information available to

NEMMCO is a good thing.

And the third issue that we talked about in this particular space is the use of very small embedded generation. It is out there. The type of generators in office buildings is an example of this kind of thing. Question mark of whether it's invisible, unable to participate in the market. There are clearly some barriers around registering and connecting and getting connection offers and all the things that need to be done when you connect a generator to a network, so you can see what it's doing and it's technically competent and so on. Potentially it does provide an additional source of capacity that could be drawn on when it's needed.

I think the challenges are, practically, if you do commit a lot of work and effort to get this type of generation into the market, first of all, is it actually able to contribute when you need it? A lot of this stuff is distribution connected, and as Ian mentioned, if the source of the reliability, the source of the loss of supply is a problem in the distribution network, then having lots of embedded generation isn't necessarily going to make a positive contribution. But there might be some circumstances where additional capacity can make a contribution. But a second challenge is, we don't really know how much there is, and whether if we did remove these barriers it would reveal a lot of additional capacity or a little bit that wasn't particularly useful. So I think there's a genuine question about materiality here. It probably does involve a great deal of work and effort to address these issues and the question of how much benefit will you get from this particular perspective.

So to kick off the discussion, we tried to extract a few key questions that we felt would be particularly useful. One is around this issue of you could have NEMMCO intervening in the market more than nine months in advance. Is this a good idea? What kind of risks are associated with this? Another question around the materiality of - is there lots of small embedded generation? Are we missing a big trick, or is it noise? Also, how big is this information gap that NEMMCO faces when it's trying to anticipate how much DSP is out there embedded in the market when it's deciding whether to intervene in the market or not?

**JOHN TAMBLYN:** Colin, thanks. Before we have general discussion, Ian, would you like to make any observations from a Reliability Panel point of view?

**IAN WOODWARD:** Only that the issue related to the utilisation of a panel format for looking at short term options is part of the thing we're consulting on tonight and the design involves a panel that is capable of being used at the nine months out zone, right down to a 12-hour zone in its format. So panel processes seem to have a lot more flexibility around them. So that is going to be part of that, and let's put that out there, but we have heard from a lot of the stakeholder submissions and a couple of the comments today that that seems to be an intelligent direction. The second thing is that clearly, in our analysis on these matters, more broadly, the interplay between the directions power and the interventions is an important one, because ultimately the market design here is to minimise the level of distortion and intervention in the market. So at the moment we have got effectively two distortions. One is the directions power and the second is the reserve trader. If there is more flexibility, we would need to ensure that the way in which participants enter the market - consumers and suppliers - were able to both model and contract around that as well. So that is some of the issues we investigated.

**JOHN TAMBLYN:** Thanks, Ian. Could I just ask panel members if they would like to make any comments on the approach Colin has outlined, and the way we're thinking about the short term reliability question and the directional solutions we're thinking about, and any criticisms or comments on that.

**MARK FREWIN:** Mark Frewin here from the ERAA. Looking at the short term reserve contracting, in general the retailers raise a big concern about these kind of mechanisms that create unhedgable uplifts, because there is no option for us to manage that price risk; we can only pass it through to customers, and as I'm sure David will reinforce, that is never very pleasant for either party. So we really believe that we should be trying to push the demand side debate into making demand side work in the market more generally, and not have to rely on these crutches of uplift payments et cetera. So that is the high level point. In terms of the specific proposal, we will have a look at what comes from the panel tonight, as Ian has highlighted in terms of understanding the detail more, but we will be having a close look; we were concerned that this could go down a path of incentivising people to go on the panel and not participate in the market. So we want to try and make sure that doesn't happen, and also to make sure that NEMMCO is not left in some sort of distressed buyer mode, and facing very extortionate costs.

One thing that Colin did mention that we strongly support is that there should be no payments to panel members unless they're actually contracted; I don't think there is any justification for that. This really to me seems more a mechanism for people to make themselves known to NEMMCO. So that is really the theme on the short term RET issue. Looking at the information provision; that is another one that probably we think needs a little bit more consideration. Currently, retailers have an obligation to supply NEMMCO with information on any demand side resources they have contracted or have available, and we do that. I know that there is some concerns that we can only put fairly vague comments around how firm that is, and I think that is more a factor of many of the contracts we get do have a lot of out clauses for customers, and I think that is sensible, because customers have to run their other business. So it is very difficult for us to say we have got very firm capacity, and a lot of the stuff that I think NEMMCO is getting is in that lower firmness level. So I think we all need to understand that's probably a factor of the sort of contracts that are out there.

The other thing there is that we do already have this obligation to supply whatever we know, and there seems to be a concern that there is probably a lot more out there. It seems to me to actually find out what is out there, going to the retailers is probably not going to help much. You would need to actually survey the customers themselves, because, as one of my customer colleagues on the reference group pointed out, many customer take full pass-through contracts these days, and actually manage their own response, and they can self-curtail when the price is high to the degree they can on the day. So I just caution against expecting a lot from more requirements from retailers there, and perhaps we need to look at the issue more deeply. The final issue was the one about removing barriers to small embedded generation, et cetera, and I think there is no issues there from retailers in terms of, yes, I think that is very sensible to look at what sort of barriers we can remove in terms of registration or any technical connection issues, and support the Commission heading down that path.

**JOHN TAMBLYN:** Thanks, Mark. Ben, from a NEMMCO/AEMO perspective, any

comment? Noting this is directional thinking.

**BEN SKINNER:** I actually had a question for Mark. What is the obligation that you're referring to that retailers presently are required to supply that information?

**MARK FREWIN:** Well, I'm not aware of a particular rule obligation. I know that under the SOO every year there's a survey that comes out to retailers.

**BEN SKINNER:** That's correct, yes.

**MARK FREWIN:** And we respond to that one. So whether or not that is a rule obligation or a voluntary issue, I don't know.

**BEN SKINNER:** The issue from NEMMCO's position, we understand that to be a voluntary supply, and the quality of the information that we're getting back is below what we would have hoped, and we're not certain - it may be technical issues as you referred to - but it could also be the lack of obligation to deliver that information could be hampering the delivery of it. On broader issues, the proposals regarding creating the panel for the provision of the reserve trader in a shorter sense, I think all of those proposals we would say, Colin, are quite sensible, incremental improvements to the current arrangements, and I wouldn't have taken the view - whilst they will probably make the administration of the facility more efficient and more responsive - that it would necessarily change the fundamental role of the reserve trader, which has always been a last minute intervention; it has certainly not been intended to undermine the investment incentive. You should probably be aware, if anything, NEMMCO has been reluctant to use reserve trader over the years. I think it has probably been under more criticism on that side, and I don't think that the creation of this panel would necessarily change its natural inhibition to intervene in the market.

Also, the same would apply for directions. One thing I should perhaps point out to Colin, as you correctly pointed out, direction is described under the rules as being available to scheduled parties but not to non-scheduled parties, and those come under a 489 instruction. There is the issue that where an instruction is given, there is no compensation is available, as you pointed out there. It did sound a little bit like it was hoped that the short term reserve trader panel could potentially resolve that anomaly, but I would point out that many or really all the directions that have occurred over the market have been done in very, very short term conditions, as in almost requiring immediate response. So even the faster reserve trader process wouldn't necessarily avert the need for either that sort of immediate directional 489 instruction mechanism.

**JOHN TAMBLYN:** Thanks Ben. Tosh, have you got thoughts on this particular matter from a customer use point of view?

**TOSH SZATOW:** Yeah, I do. I suppose customers are interested in the demand side more broadly as a way of providing energy, clean energy, at a lower cost, more it can than wholesale energy. So we don't see it as just a mechanism to respond to some sort of asset failure at the generation end, but a role for it competing with wholesale generation as part of market operations. So I just wanted to make that point. The other point, Colin mentioned the issued about, how can distributed generation be reliable if you've got distribution network failures? I think you are trying to address the issue here,

asset failure at the wholesale generation end. And so to me that seemed a bit of a red herring. The other point I think is, is there enough demand-side there to warrant changing rules? I think given the way technology is developing around the world, we need a framework that allows it compete where it is efficient. And if it is not there now, it doesn't necessarily mean it is not efficient. It may mean that the market rules aren't supporting the way that they should. So I think we should just bear that in mind.

**JOHN TAMBLYN:** Thanks, Tosh. And Clare, would you like to make an observation?

**CLARE SAVAGE:** I think I covered it in my presentation earlier. But I would just add on to what Tosh said as well. I think the point that Ian made as well, the role of smart grids and intelligent grids going forward has a fairly big impact on this part of it. And the rules, I guess, being drafted or amended or reviewed in such a way as to ensure that they facilitate, where efficient, the role of those grids I think is important.

**JOHN TAMBLYN:** Well, thank you for that. Well, that then leaves it open to the floor to raise issues with either the Commissioners or Colin or with our panel on this reliability question. We've got a leading question. We are focussed on the short-term flexibility and responsiveness. Pros and cons of a longer-term view on that, I don't know if there are views there. We have been minded to leave the market run in the medium to long-term and focus on the short-term, but any comments on that would be welcome. Yes, David Swift at the back there.

**DAVID SWIFT:** I'll have a go at a counter-factual. David Swift from the ESIPC. I think one of the flaws at the moment in this area is that customers and embedded generators particularly require it to make a sizable investment of maybe \$50,000 or \$100,000 to be able to just synchronize their generator to the grid or to have communications or perhaps to split their supply so that there is some interruptible and control systems or lighting or safety systems that can't turn off. Now, a very short-term system, and this panel system particularly, allows no money at all for these parties to make those investments. And those might be efficient if you looked over a ten year time span. Also in a competitive market it is not efficient for a retailer. He might be looking at a one, two or three-year contract. So I think, as a serious counter-factual, they should be looking at the option of standing contracts for interruptible supply. They were very common in Australia prior to the market operating. And I think it's a great pity that we don't have some of those facilities today.

**JOHN TAMBLYN:** And did you have in mind standing contracts with retailers, NEMMCO?

**DAVID SWIFT:** No, direct with the consumer, to allow basically a price based on the value that they offer to the market in terms of the amount that they are prepared to interrupt as a standing payment. I think one of the problems we have is we have to pick one vol, and it's certainly not true that there's one vol out there. Different customers have a different value of that reliability. And if it's quite clear that many of them don't have a value of reliability of 10,000 or 12,500 if I look in the paper and see all sorts of rude comments even about myself and nice people like that and the rest of the industry. When we do have a blackout, it's quite an issue, isn't it, and so it is clear that a lot of customers don't have a \$10,000 vol and if those customers are prepared to pay someone else to go off first, I think there is economic efficiency advantages in that.

**JOHN TAMBLYN:** Well, thanks, David, for that comment. And as we said, whilst we are not at the moment across the line on mechanisms such as that, we are looking further at those kind of issues. And I think the MEU has also raised those kind of questions as well. Any other observations? Yes, right at the back there.

**ALLAN RATTRAY:** Alan Rattray, Oakley Greenwood.

**JOHN TAMBLYN:** Yes, Alan, yes.

**ALAN RATTRAY:** Sort of following on from David's question in a way. One of the things that was raised from very on in the market was the possible need for a short-term forward market to support demand side, because one of the problems with demand side is, by backing off there's essentially no revenue stream. Unless you're already contracted and backing off against a contract, it's difficult to get a revenue stream out of that. I wonder if you had given any - and, anyway, I've considered this and basically rejected it before, but I wonder if that's something that you've considered might be relevant here?

**JOHN TAMBLYN:** I think it was a reaction to your proposal, Alan. Thanks for the comment. I might perhaps ask, well, first of all Ian, did you have any thoughts on this particular point?

**IAN WOODWARD:** Well, obviously there is, theoretically, the potential for additional short-term contracting and short-term markets to be created. The question is how you would integrate such a matter, or such a design, with the rest of the NEM market design. And I think that's the reason why the debate since the start of the NEM has not actually adopted that. But I, from an analytical perspective, both through our demand-side review and also through this matter, we're certainly capable of having another look at that, but we haven't been able, so far - through the analytics - to see a workable mechanism to be able to integrate that with the NEM wholesale market efficiently.

**JOHN TAMBLYN:** Ben, I don't know if this is a bit unfair, but I understand that NEMMCO has looked at this question a couple of times. There have been proponents within NEMMCO, but it hasn't got up for operational and other complex reasons. Have you got any comment to make?

**BEN SKINNER:** I'd probably have to take that one on notice, sorry, John.

**JOHN TAMBLYN:** But look, Alan, as Ian has said, we have given it initial consideration in our demand-side participation review, it's not currently on the table in that process, but it's not excluded. But making it operational and integrating it into the design and seeing where it would add further value are some of the issues that need to be raised. So lets note the point, but at the moment it's not something we are moving on at the moment. Any other points? Yes, David.

**DAVID HEADBURY:** David Headbury, Major Energy Users. In regard to this, it's worthwhile having a look at what's happening in the development of the short-term trading market for gas. One of the fall-back positions that has been built into that model is contingency gas, which is called on when there's a problem. And how that works is

that AEMO will have a standing panel of providers, which will probably mainly be demand side providers, who are willing to shut down for a known price. And so they will have actually provided with AEMO or through their retailer, provided with AEMO, I can drop off 20 megawatts or 50 megawatts or whatever, and this is the price I'll be looking for, and under the short-term trading market, it's the marginal price that sets the price for contingency gas. Such an approach could be done in the electricity market the same way. Has this been considered?

**JOHN TAMBLYN:** Well, it has been considered. As I say, in the very early stages of our DSP review, including some consultations with NEMMCO, and we did not proceed with it, David. Now, I think both your comment, Alan, and David's, this is at least something we need to look at further. And if there is experience in the short-term gas trading market that might be informative, let's look at that. So an open willingness to look again at the question. As I say, initially we did not proceed with the idea.

**SPEAKER:** John, can I just clarify that. In establishing the panel, isn't that what you would be doing on it?

**JOHN TAMBLYN:** Yeah, but the panel would relate specifically and exclusively to a call for a reserved trading situation. One of the other issues here is whether or not it was coming through generation sources, or demand-side might be able to be used for a wider range of purposes. For example, if it happened to be in the right place at the right time in the right circumstance, could it be called upon for security matters as opposed to reliability matters? Those are some of the questions, I think, that still need analysis, and one of the purposes that the panel has put out - as we've done with virtually every other major proposal in the last three years - is now put out a detailed exposure draft, to actually draw those deep issues out and see whether or not we can accommodate those sorts of things.

In effect, a panel basis for an emergency reserve is more likely a contingency arrangement. Whether or not it has a payment stream associated with it is a different part of the design, but the notion of a panel arrangement is much more like a contingency arrangement.

**MARK JOHNSTON:** Thank you. Maybe a question to Colin. It's Mark Johnston from NEMMCO. Some of the comments recently are about what are the other options you may have considered, and I'm just wondering whether you can elaborate, either now or later on, about what are the other options you considered in trying to address this solution. Because you presented us with three options, and I'm particularly interested in whether you had any other market-based approaches. We heard about the short-term forward market. Are there any other market-based approaches that you have considered or looked at from overseas?

**COLIN SAUSMAN:** I think in the context of DSP more generally, you know, we did analysis on, well, are there any barriers to participation in the wholesale market directly, and some of the findings there were published in our most recent report. My own view - and I think this is what..(not transcribable)..you know, there is a route to market. So if there is a value..(not transcribable)..there are various routes to market. And hanging back waiting for NEMMCO to pass the..(not transcribable)..is one approach. I'd say it's probably not the desirable approach, because ideally these interventions don't happen,

they are by exception. I think it sort of resonated..(not transcribable)..that ideally what you want is this.

If there is a valuable capacity, or you know, it's useful to retailers, then you want it to be in the market. These kinds of mechanisms presume, for whatever reason, that process hasn't worked. I think the attention should be on, well, how do you avoid that? How do you actually make it work? And whether you need a forward market to effectuate that trading between users and retailers is another matter. Where we ended up on the graph before was no, you don't. Bilateral contracting can happen; it does happen. If you really want to, you can participate directly in markets, but there are a number of routes, and that should be the focus, to me. DSP..(not transcribable)..

**JOHN TAMBLYN:** Okay. Other comments from the floor? Second one from Alan Rattray.

**ALAN RATTRAY:** A couple of points. Firstly, picking up David's point. I mean, gas markets basically are ex-ante, so they are effectively a short-term forward market for the day ahead, and convergence between gas and electricity, and arbitraging between the two fuels, requires some degree of compatibility there. So I think that's another issue where this may need to be reconsidered. I haven't been a fan of it in the past, I'm not necessarily promoting it as a solution, I'm just saying it's something I think should be considered. I think there's yet another reason that it may need to be considered, and that is that coal fire generation moving from base load duty to more intermediate duty is facing a whole new set of problems. So one possible solution for a coal fire plant to get its commitment decision would be able to have a greater degree of certainty about price for a longer period than 5 minutes. So, you know, there may be a number of ingredients to this reconsideration. Any comments from the panel on that?

**JOHN TAMBLYN:** I think only to note the points you are making and others are making, and whether, in the context of this review, or other reviews that are ongoing, DSP reliability, these are issues I think that we need to give some more thought to. So I appreciate the comment, and we will give it some further attention. Yes, here in the middle.

**ROB JACKSON:** Rob Jackson from the Clean Energy Council. In looking at this and the - one of the issues that we have discussed previously is the 5 minute/30 minute issue, and the fact that that distorts the very short-term issues, and Allan raised it again there. Is the Commission, as part of this, going to have at least a quick look to see if there's a way around that problem, and to make sure that the incentives and rewards are truly there?

**JOHN TAMBLYN:** You'll probably note, when you get a chance, that in the excellent paper we've published by Darryl Biggar, that issue is raised in passing as a potential distortion, particularly where very fast-start capacity might need to be incentivised. So, in that sense, as we look at a range of issues that might help us with congestion management and other issues, that is before us. So it's under consideration, without being the centre of attention. Just up here first, I think, and then over here on the left.

**PAUL TROUGHTON:** Hello. I'm Paul Troughton from Energy Response. I'd just like to talk about the embedded generation issue, and this is a case of very fast start

generation, so the 5 minute/30 minute issue is relevant to us. The point I wanted to make is that I've been looking at this for a couple of years now, and I can see there is a very material capacity available, and it can help on a lot of these issues. How much of it can actually be used depends on how far you go in addressing the connection issues. It was always going to be a two-year, hundred-thousand-dollar process to get existing generation online in the market. That really does limit what can be done. There's a continuum, and you've got to decide the right place for it. We're not in the right place now. That's all, thank you.

**JOHN TAMBLYN:** Thank you for that observation, and we'll have that in mind. Before we go to you, I think there was a comment over here, thanks.

**GREG THORPE:** Greg Thorpe from Oakley Greenwood. In terms of looking at the question of almost starting this from the presumption that there will be a need for greater intervention, I presume that there is also consideration of removing or paying attention to the causes of what is leading to the understanding of greater intervention. If we are looking at this as coming from the climate change induced policies, I would have expected - and tell me if I've missed anything here - that the drivers for potential for increased intervention will either be from the increased volatility due to, say, intermittent generation, or from the - I'll say forced early shutdown and rapid shutdown - essentially uncontrolled shutdown of large blocks of existing coal plant.

I think that there are compensation mechanisms or drivers to require and give a strong incentive for the coal plant to remain available, and that attention to that might mitigate that risk and in the volatile output from intermittent generation, whether it is an ancillary services solution, so that rather than trying to beef up intervention, with all of the problems that have been tackled here, are we balancing out whether it is, in fact, a lesser evil - if it is an evil at all - to tackle it from removing the causes, rather than paying attention to the consequences? I presume that's on the table, so it's either a comment or a question.

**IAN WOODWARD:** I think, Greg, the answer to your question is, those other areas and the causes are being looked at. Obviously, as you'd recognise from your own analytical work on potential options around reliability, ancillary services and your own conclusion that that kind of market probably doesn't work for us, that area isn't itself on the table. But the areas around sources, we recognise what's driving some things here. But I think there's a third dimension, beyond those you've managed to mention, and that is that there will be a tremendous transition period occurring here, at a time when if we had not had climate change policy issues, we were going to run into an incredibly tight supply and demand situation in any case. There are a lot of issues that are exacerbated by the specific timing of the availability of either demand or new generation investment responses that are overlaid here.

So there is not a predilection from the Commission towards interventionist mechanisms. If it is possible to find market solutions, as a market driver and to look to remove impediments, then I think that's the direction we want to go, but there are some significant, in our view, transition arrangements, particularly around managing short term situations, and if I can just come back to the example of the short term reserve trader, the mechanism of the panel that was put out for consultation - just on that - has a sunset period in it.

**BEN SKINNER:** If I could also add to that. I would just say I would agree with that, Ian, and also I think we probably shouldn't get too hung up with trying to distinguish within the review exactly whether the cause of a particular improvement to the market is purely the result of a need to address something that purely comes about because of these climate change frameworks reviews. I would certainly say with the two matters that Colin has referred to here, you could certainly identify some very good other reasons why those sorts of improvements are worthwhile. The fact is that there is growth in embedded generation and demand side, and some people might say it's fairly slow; it has been a long time coming, but we do believe that it is underway. Also, just the experiences that we have had of operating the various iterations of the reserve trader have shown a degree of unresponsiveness, and in particular, that has to be improved also, cognisant of the creation of a number of a new activities that are occurring in the demand side space and aggregation and so forth. So there are some other good reasons for pursuing those activities, even if you can't find necessarily a pure climate change driven motivation.

**JOHN TAMBLYN:** Clare, and then we will have one more comment from here, and we need to move to the next matter.

**CLARE SAVAGE:** Greg identified two issues that he thought. One was around intermittency from renewable generation. The other one was around rapid shutdown of coal-fired plant. The adequate allocation of permits is actually outside of the ANC's remit, and from that perspective, you don't actually have any control on making sure there's not rapid shutdown applied, but you did put a report to ministers that said you didn't think that was a risk. If you still think that's the case, or if you don't think that's the case, then you might want to reconsider your advice to ministers.

**JOHN TAMBLYN:** Thank you for that, and can I just add to your comment that the stimulus to renewables, if that is another cause, is not something we have control over either. Tosh and then this one comment from here, then we have to move on.

**TOSH SZATOW:** I will be very quick. The point that was raised about connecting to the networks, and I just want to take the opportunity to bring up a broader issue in that the process for connecting to distribution network being looked at by SCO and the processes of connecting to the transition network being looked at as a subgroup as part of this process is not aligned, and that we think it needs to happen. It seems to be symptomatic of these kind of parallel processes; they don't always talk to each other. The other point is that we think it's very important that the AEMC practically seek broad stakeholder consultation. It's probably too early to say; we haven't had the chance to look through the entire DSP paper that was released yesterday, but we get the impression that the more you talk to the broad community, Greater Bendigo, any due response, and there are lots of others, that there are lots of stories about problems which seem to fly under the radar and we try and facilitate that sort of broader consultation as much as possible, but we think that it would be beneficial to beef that up.

**JOHN TAMBLYN:** Thanks for that, and that's an ongoing challenge, but I just take your point on board. This comment that you have been waiting to make.

**DAVID DAWSON:** I am doing some work currently in the Philippines. I'm just drawing

an analogy there against the process you're going through as to what they're going through at the moment. The Philippines, in particular the Versayas area, is very much in a reserve problem. It doesn't have enough generation capacity. The Energy Regulatory Commission is in the process at the moment of going through a consultation process where they're deliberately looking at the issues that I think David and a few others have raised, and they are able to find a contractual arrangement from the system operator, who is required by their law to find the reliability and contract for reliability and for ancillary services to achieve that. They're actually looking at a market mechanism at the moment to find ancillary services, or to secure ancillary services. People who wish to enter that market, they are forcing them to put in place the data feeds and the control feeds back to the system operator.

They are forcing them to be of a particular minimum size, so that you can only participate in the market if you're beyond that particular size, and the actual prices will be set by the marketplace, and they will move away from the contracts eventually. So to me, there are mechanisms there if you wish to look for something that will help you the issue of the volt price that various customers have. They use low..(not transcribable)..as well as embedded generation in both these arrangements in order to try and balance the load and try and find a better supply-demand balance than otherwise they might. Will it work? I'm not sure. It's very difficult in a market like that. My issue with them is instead of looking at the ancillary services market, what they should be doing is actually letting the price run free in the main market, and I suspect the generation investment will occur, but it's just a thought that I think that we're moving towards where they are, and that is very little reserve capacity. So you might want to look broader afield to see what other people are doing as well.

**JOHN TAMBLYN:** Thanks for that observation, and we will certainly have a look at that experience if it seems that it will have some lessons for us. I think we need to move on to the next topic fairly quickly. This is retail. So perhaps you have already spoken about it; you might just hit the highlights, Colin.

**COLIN SAUSMAN:** At the risk of trying to do our bit for stakeholder engagements, we are aware that having an event finish at 5.30 on a Friday is not great, and over running on that is even worse, so we will try and move on. So this is about retail price regulation. That recaps what we said earlier on. We think there is an issue around high cost increases to retailers and volatility of those cost increases. A question mark about whether the existing frameworks for price regulation, which are an important of protecting consumers' interests, are flexible enough to cope, or whether you have the risk of having retail tariffs which, because of regulation, are significantly out of whack with underlying costs, and that can be on the upside or on the downside. So just to draw the main point out of this slide, we think the main issue is it's the volatility of carbon-inclusive energy costs which is the problem, particularly in the short term - the first couple of years of the scheme. It's a very difficult job for a regulator to make a sensible assessment of what the carbon price is going to be, and there's a reasonable risk if you apply a very sensible methodology on the basis of all the information available at the time, that it just turns out you get it very wrong, and this is no criticism on regulators; it's just a feature of the underlying cost.

So what do you do with that? We think you need to allow for retail price regulation to be more flexible, and what we're trying to do is work through options which adopt

some kind of principles for how you might introduce that flexibility, and we're not entirely sure where this is going to end. We are talking with jurisdictional regulators at the moment; we had a meeting with them last week, and we will have another one in the next few weeks I would hope, and we're trying to develop ways of introducing this flexibility, and in particular, recognising that each jurisdiction has a different starting point; regulators operating in very different statutory environments. Certain things are written into acts, certain things are written into regulations, certain things are given to the regulator for discretion; there's also differences in when resets are done, and methodologies that need to be applied. So you need to recognise that diversity and focus on some principles which you think might be sensible if they could be universally adopted. The kind of principles that we're talking about are a recognition that these costs are very uncertain. So don't pretend that you can model these costs accurately, because at least in the first couple of years of the scheme, that's a fairly courageous, probably foolhardy assumption. So being aware that that's the case.

Allowing for review of certain parts of the cost build up for retail tariffs, and the frequency of that review needs to be discussed. Some people are saying that 12 months is not frequent enough, and maybe you need to allow for a six-monthly review. So if you're in that kind of world, how do you balance those pressures with the need for predictability and stability in the regulatory framework? Are you setting prices which retailers can contract around and work around, or are you just creating lots of risk that needs to be managed that will reveal itself in ultimately high cost to consumers? So these are all very difficult questions and ultimately it will require jurisdictional regulators to give effect to them. But we think by encouraging debate, getting the issues on the table, hopefully we'll shed some light on these quite tricky issues.

So in terms of key questions, an important issue for us is that there's a presumption here that the uniqueness that carbon price risk in the early years comes from its inability to be easily hedged by retailers. So what we're trying to do is do some analysis to test that and say, well, what could an efficient retailer do and what kind of risk does it face, just to test this question that it is a very different type of cost. The other question is, is it enough to have yearly review or do we need a six-monthly review, and if so, is it an automatic six-monthly review or do you need to go through certain thresholds or triggers before you invoke that process? And is there any difference the methodology that might be applied in the very short-term, where there is no information about carbon prices? Do you want to, sort of, hard-wire a review and a change in approach after six months or after a year when you have got at least some price data? So these are the questions that we are tackling at the moment and I guess we open it up for comment now.

**JOHN TAMBLYN:** Thanks, Colin, very much. So let's try and be fairly quick in this particular matter. But, could I perhaps go straight to you, Tosh? Here is a matter of direct and immediate concern to customers, and particularly perhaps to the smaller customer group. What thoughts have you got on this question of how do you manage retail price regulation in this context?

**TOSH SZATOW:** I suppose from a carrot perspective it's too late. We're in Victoria and prices are deregulated. But we do have a representative of the consumer round table who is sort of involved in the sub-group. I suppose the view is that retailers and regulators are in a better position to manage risk than customers. There's a large

volume of customers that are on fixed incomes that already struggle to pay bills, and, in particular, when you look at the proposed customer protection framework, those customers are going to be increasingly under pressure to maintain on-supply to essential services.. So I haven't had the time to form a view of exactly how this process should be managed, but it's something that our group is very much engaged in and interested in.

**JOHN TAMBLYN:** All right, well, thank you for those comments. Is there a retailer view on - well, there is, obviously; what is it?

**MARK FREWIN:** Look, I'll just move over to the microphone here. Look, we, pretty much are in strong alignment with the position that the ESAA put this morning, or earlier today. In an ideal world we would be in a competitive retail market and price caps would be removed. I guess we accept that, or we don't accept, but we see that that's probably not going to be the case in the short-term. So in that light, I think the issues that you have identified at the AEMC are the right ones, in terms of the huge uncertainty about what the carbon price will be and also the fact that at this stage there are not a lot options for us to manage that risk. We are looking forward to continuing the work with the review on this one and I think meeting with some of the staff next week to further discussions on that.

**JOHN TAMBLYN:** Did you have a further point, Tosh?

**TOSH SZATOW :** I was just going to say, we hear a lot about the huge costs of carbon that are going to be coming through and how difficult that is going to be to manage. Some of the scheme isn't finalised and the targets look very low. The only reasonable assumption seems to be that the carbon price is going to be low.

**MARK FREWIN:** Sorry, I think the point was there's a great deal of uncertainty. It could be lower, it could be higher.

**TOSH SZATOW:** So it could be low or lower, it seems, given the targets. So I think it's overstating the case to say we are going to be slugged with a massive carbon price that is going to sort of take us by surprise.

**MARK FREWIN:** I'll be speaking to you afterwards to get a hedge on that on.

**JOHN TAMBLYN:** Ben, have you got a comment to make from a NEMMCO perspective at all on this? I know the prudential issues are immediate. Our current understanding is, the MCE SCO is dealing with certainly the ROLR issues. And there will be a request, I think, for NEMMCO to look at some aspect of the adequacy of the prudential arrangements. But have you got comments in this general space?

**BEN SKINNER:** Well, I think you anticipated my question very accurately there, John. I guess, following on from the earlier answer that Colin gave on that question. I recall from the first interim report, there was considerable concern about the time frames associated with the delivery of an outcome out of the MCE process for ROLR. And I think there were effectively some deadlines that might have already passed. So I just wondered if you have put your mind to whether or not those time frames are acceptable.

**JOHN TAMBLYN:** Well, I think we will continue to note where the responsibility for carriage of this lies. But as we look at the implication of retail price issues - we have already commented on this question - it is important that it is dealt with effectively and that there are arrangements in place to deal with the potential for some retailer failure. And at the moment that's not the situation we face. Equally, the prudential arrangements are being looked at in some other fora. As I say, I understand that NEMMCO/AEMO will be asked to report to the MCE and the AEMC has a piece of work going on in a review on futures offset arrangements to try and see if it's possible to net off contract positions and spot market positions to reduce the absolute value of prudential. So there's that kind of work going on. But our commentary - other than on mechanisms for improving the flexibility of retail price regulation - will only be limited to the importance of dealing with these issues in a timely way.

**BEN BLAKE:** Just to add to that, I think the main point about ROLR is, we understand that it's firmly part of the retail package, so practically there isn't a great deal of constructive work you can do separately outside the process that's going on to develop that package.

**JOHN TAMBLYN:** Ian or John, have you got any comments on the way I characterised that issue?

**IAN WOODWARD** No, just a piece of translation for those in the room who don't know what we're talking about. The ROLR is not a roller door, it's the Retail Of Last Resort. We are an industry and a policy group full of acronyms.

**JOHN TAMBLYN:** Thanks, Ian, for the translation. Any comments, then, from the floor? Yes, Allan.

**ALLAN ASHER:** Allan Asher from effective markets foundations. I think, not commenting on anything I've spoken before, but this issue raises the much wider and more important one that hasn't been dealt with in your paper, but I think is the issue of the 21st century with prices, and that is tariff structure. And this is true certainly for regulated - and for that matter unregulated - tariffs, the need to conceive of ways of getting rid of decreasing block tariffs and finding carbon-reducing ways of increasing block tariffs and to use this same mechanism to find ways of dealing with the problems of vulnerable consumers. There's lots of work at a conceptual level and a little work on a practical level of implementing those things. One of your terms of reference was to provide advice to ministers. This isn't one where I could tell you what a rule should look like, but I would certainly urge you to at least consider in the advice to ministers, something about that and how some current thinking internationally is looking at how tariff structures themselves can drive carbon abatement and at the same time look after the interests of vulnerable consumers, who would otherwise cop these loads of carbon, whether they be small or heavy right between the eyes.

**JOHN TAMBLYN:** Well, again Allan, thanks for the comment. We have touched on the question of price signals, and therefore tariff structure, for end use customers in our demand-side participation report. We've focussed particularly on the difficulties with accumulation metres of getting effective tariff structures and the benefits also with significant interval metres, time-of-use measurement, so that there can be time-of-use pricing. If there is overseas experience in the way there has been incentive for more

efficient and carbon reflective tariff structures, we would certainly like to be pointed to that material. I think you have, in your submission, identified a number of European documents that could be informative. So whether and how we could deal with this, either in this review or our demand-side participation review, I think we remain to consider. But if you can put us in touch with relevant experience, we will certainly give it some consideration. You make a good point. The tariff structures are critically important to motivating behaviour, and if they are counterproductive, you are not going to get the behavioural response. So thanks for that comment. Other comments from the floor? Yes.

**JEFF BOTHE:** Jeff Bothe from City of Greater Bendigo. One element that's missing from this is education, and I'll give you the case in point to do about full retail competition. There was an expectation when Victoria - when it was given full retail competition, that people would take up the offer, and most of the education - and I'll say that in a very cynical way - was done on the assumption that data was provided on the internet. Now, we've done a database to try and work out where and how people get information, and in our retail sector, half our businesses aren't even on the web to get the information. We've had experiences in our area where one business - and it sounds unbelievable; it's the highest price I've ever seen - was paying 30.5c per kilowatt hour for their retail charge for electricity. Now, it's hard to believe, but I've seen the bill and what they were paying. The education direction that potentially sits with the AEMC - it is actually, as I understand, invoked by the ESC in Victoria and their peers in other states - needs to be an inherent part of any price regulation.

I will go back now five years, when we did another study with our businesses. We looked at 27 businesses, 30 sites, because we couldn't make sense of what businesses were paying for their electricity. And we found that there was savings that could be made - and it wasn't done by us, it was done by energy people - of about \$1.5 million over a \$12 million spend, because they weren't aware that, for that category of people, that they could negotiate, or how to negotiate, manage their bills and so forth. I think they have learnt now, but now we have got a new sector in Victoria with the full retail competition that is going through the same sort of experience. I guess that's a study that will happen in due course, of what negotiations happen and what people are paying. Just a word of caution. There needs to be some direction from AEMC to those jurisdictions about effective education.

**JOHN TAMBLYN:** Thanks for the comment. It goes a bit beyond what we're dealing with in this review. I'd simply observe that we have concluded a review of retail competition in Victoria, and made a recommendation to the Victorian government, who would have responsibility in this area, that an education campaign would be necessary to accompany deregulation of prices, and that improvements in systematic information disclosure to customers are needed. That sounds like just passing the issue, but we have recommended to the government that they take up those initiatives. I'm not sure how far they are progressed with it. From your comment, you're a bit disappointed with the outcome so far. So thanks for that comment. Now, can we have any other comments on this, because we need to move onto the next one. Yes, Paul.

**PAUL BAXTER:** Paul Baxter, the Independent Competition and Regulatory Commission in Canberra. That's ICRC, for those acronym people. A couple of things, and this follows on from a very good meeting that Colin chaired with the jurisdictional

regulators earlier in the week that he referred to. It relates to the key questions. I think there's a need to ensure that what comes out of this process is a series of principles, not necessarily rules. I think that's very, very important, because the reality is, whether I like it or whether I don't, we live in a sort of situation where jurisdictions have different legislation, have different requirements, and unfortunately we're all running on different railroad tracks. I can't get around that, as much as I would like to. I am stuck with it, as a jurisdictional regulator, as indeed are my colleagues elsewhere. We need principles rather than rules, because we can't just apply a standard set of rules.

That then flows over into the issue of whether or not one has periodic sort of reviews and adjustments. The reality is that some set their prices for periods of up to three or maybe even more years, but three years. Others set them for 12 months, as the pattern we have developed in the ACT. I'd suggest even in Victoria, where they have got their six-month adjustment arrangement locked in, they have got an issue there to deal with, given what is anticipated to be, to some degree, a degree of uncertainty of what the costs are going forward, and therefore the desire maybe to adjust prices within that period of time. So you need a set of principles that talk about the opportunity to adjust for efficient costs, and that's both up and down, rather than locking people into sort of particular periods of time under a set of rules.

The other thing just to note in that is that that principle needs to recognise that in a competitive market when people are setting prices, they don't set prices on the basis of today's marginal cost up and down. They tend to set their prices, and they will move their prices when they see a shift in overall pricing over a period of time. Very few markets that people deal with day to day deal with prices that they will see shifts just on that marginal cost, moment by moment. For example, if someone has got to buy in short term electricity and are paying a high price for it, the consumer is not seeing that being directly passed through to them at that time, unless they are under a contract that allows for that.

So I think that's an important point to make. Recognise, however, in the process - and I have touched upon this - that there is a need, and the regulators need to recognise this, that there are going to be costs; those costs are not going to necessarily be known; we are going to have to make allowances for those on the way through. We have had to deal with those things in the past. We had to deal with them at the time of the introduction of the GST. We had to deal with them at the time of the introduction of FRC in its various forms. These are not impossible tasks, but they do make the task a bit more complex and lead into some debate on that matter.

I would like to think that in all the markets there was a degree of competition occurring, that indeed if we got the number wrong, if we got it too high, competition in the marketplace would help to drag the prices back so people could see a better price, although I am concerned - and I agree with the previous questioner - in terms of people's knowledge about what's going on, but I'm even more concerned by the fact that more and more evidence is showing up of retailers leaving the market. Not just because of the uncertainties created by the wholesale electricity price and CPRS, but also because of a whole series of other things that state governments and territory governments have introduced, which have made it that much harder for retailers to compete in various marketplaces. That does concern me, because I fear that what we're going to see is greater reliance upon that price set by the jurisdictional regulator, which, as I think Colin

or John have already indicated, we can't get right by definition, and we have to then try and get the second or third-best outcome.

**JOHN TAMBLYN:** Paul, thanks for that. That's a helpful observation. Certainly, we do want to draw on the best experience and knowledge that state and territory regulators have, and come up with a frame work of principles, options, approaches that can be drawn on as jurisdictional governments and regulators determine how they will deal with this matter, consistent with what I understand has been COAG's agreement that there will be, in principle, pass-through of these costs. We're now talking about the mechanisms to achieve that. Thanks for that comment. I would like to now move on to our next session. We are now a bit over time. Tosh, you've got a point to make?

**TOSH SZATOW:** Sorry, John. I just can't let it go past. I think that the assumption about demand response to price remains an assumption, and I don't think well proven. Most of the research suggests a combination of education - social expectation is a far more effective way to drive behaviour at the small-consumer end. I would be interested to know if there were any network companies that would rely on price as a way to manage their peak demand. I wouldn't have thought there are many. And I just think it's an important point to make, because too often we're caught into making that assumption, which leads to us going down a certain path in terms of what is the optimal way to bring about demand response.

**JOHN TAMBLYN:** No, it's a fair point to make. I just observe that the discussion that has been raised elsewhere on interval metres and smart grids and remote control with contracting for customers to agree to certain kinds of interruption or external control, does offer a route where customers can decide, but someone else can manage.

**TOSH SZATOW:** Absolutely, and we'd rather see that sort of price incentive rather than a price penalty for - a price incentive for signing up to that as opposed to a price penalty for--

**JOHN TAMBLYN:** Exactly so. All right, can we move on, then, to the next topic. Can you catch up a bit of time for us, Colin? Can we have the next panel group, and thank you panel members. Rainer Korte, Alex Cruickshank and Rob Jackson. Rainer from Grid Australia, Alex, National Generators Forum and Rob Jackson, Clean Energy Council.

**COLIN SAUSMAN:** I've just been given some guidance on how to manage the risk of time overrun, so a slight change in approach. What we're going to do is have a discussion covering both of the remaining topics, which all relate to transmission in various forms. So the first issue is around this issue or remote connection and if you are going to see lots of new generation connections in remote parts or network then what is a framework to efficiently plan the investment to connect those new developments and how do you allow for the fact that the transmission capacity you need to build needs to allow for future growth, which is by definition uncertain. So there's risk of - there seem strong benefits in over-sizing transmission, because of the economies of scale. But they also create a risk for consumers. So that's the first issue we wanted to talk about. And there's a specific proposal, which I don't want to go into detail, which is to provide a new framework to regulate the building of these links and provide for some risk-sharing between consumers and generators on costs.

And the second issue is the more general question about, if people in the market are, as a result of these policies, making more investment decisions, and making more operational decisions, in a different environment, allowing for the cost of carbon, allowing for the subsidy provided through the RET, then what kind of behavioural changes will that drive? And do the existing signals that condition behaviour on how to operate plant and where to locate and whether to close or not, do they actually drive the right, the efficient overall outcome when you allow for all the costs of building transmission, building generation and managing risk in the market. So there's a whole set of issues around that particular question.

And what we've tried to do is unpack it into short-term effects that affect generation; short-term effects that affect transmission; and long-term effects that affect both, and recognising that those are all different drivers of potential inefficient costs. What we're trying to understand is, what are the most important areas of potential inefficient costs. And once we've got that kind of mapping, to say, well, if that's the materiality of the problem, then how might you change the regulation of transmission, for example, or the way the spot market is priced, or the way transmission costs are recovered, allowing for all the interactions, to drive a more efficient outcome.

So we're doing some analytical work to get a handle on those things. We're doing some - and there's a paper by Darryl Biggar that informs that process - we're doing some modelling work, which is trying to put some numbers to some of these effects, and we're also talking to stakeholders about what the different pros and cons are of different options. So the initial focus of our attention is, well, what are the main areas. Is it short-term effects? Is it long-term effects? Is it generation, is it transmission? And then when we've got a richer understanding of that particular question, moving on to the next question, which is, well, what should you do, allowing for the different levers that you can pull, which affect transmission and generation. So it's a big question. I'm not sure we'll do it full justice in the remaining time, but at least we can have the start of a debate.

**JOHN TAMBLYN:** Thank you very much. Now I'd like to just go to our panel members initially and just get any observations you would like make in general on the question of congestion in the network in the context of climate policy and options for addressing that, whether you think it is a serious issue and what kind of matters might be dealt with, and then we can come back to the remote connection question as well. But can we start with you, Rainer.

**RAINER KORTE:** Sure, well I think it seems like every man and his dog is doing a market modelling study to try and answer that question as to whether there is a material congestion issue that is likely to arise, and Grid Australia is certainly doing some work in that area. Our early work suggests that there certainly will be a need for interconnector augmentation, for example, and possibly some new interconnectors. But we're not yet complete with that work. So we can't really give definitive answers. And I know there are many others, including the AMC, that are looking at that. So I think that's pretty much all I can observe and comment on at this point, that our early studies suggest there will be, if we're going to meet the RET, in particular, in the most efficient way, there will be a need for some deeper network or shared network augmentation. So the question of whether the current framework will facilitate that is another question, of course. And I think it may well do, but I can't be sure about that until further work is

done.

**JOHN TAMBLYN:** Well, thanks for that, and as Colin has indicated, we are doing further work both on the materiality question but also on the options that might be progressed if it's shown to be a material issue. Alex, would you like to comment from NGF's point of view?

**ALEX CRUICKSHANK:** I think it's worth to say that when you are bringing in a whole stack of new investment and different types of investment and different types of plant into a market via an externality to the market metres and someone tells you they'd like you to change in flows, and that's going to cause increasing congestion. The NGF like Grid Australia actually model it ourselves, trying to work out exactly what the extent of it is, but our preliminary view, too, is that it will be important. The second issue of the remote connection - if we are going to deal with that as part of the same topic - is if you are going to try and bring totally new fuel sources on, you have to do it as economically efficiently as possible and you have got to balance the ability or the cost to the community of bringing in a new network with the costs of the risk of stranded assets. And I think it's fair to say that the generators view is that there is a real need for some sort of mediated or supported mechanism.

**ROB JACKSON:** Well, the Clean Energy Council hasn't started its modelling work on it, yet, but we probably will. But suffice to say, I think, that whatever happens, Australia is starting to be in a point where it is going to need new generation, so even without some of these climate change issues we would be seeing new generation. There's a fair chance that it wouldn't necessarily be in the same locations as the existing generation and therefore it's likely to be that congestion will be an issue full stop. It probably will be exacerbated by the Renewable Energy Target and the hopefully CPRS as that is more likely to deliver generation in places where it certainly isn't at the moment. I would anticipate that, yes, that there will be significant needs to build out some of this, or economic reasons to build out this. And I have some concerns as to whether the current framework can do that efficiently. And we intend to do some work on that and see what options there are around there. As far as the remote connection issue, certainly the direction that the Commission is going at the moment in considering this facilitated multi-lateral arrangements for assisting connections to renewable-rich areas certainly has potential and we want to keep working with the process on that.

**JOHN TAMBLYN:** Thanks, Rob. Rainer, perhaps you might like to come back to the remote connection matter.

**RAINER KORTE:** Yeah, I didn't get a chance on that. I mean, we certainly would agree that that is an issue that should be looked at further. I think we are - as I alluded to right at the beginning of the session when I spent a minute or two up here, I think we're comfortable with the broad direction that the Commission is taking to look at some options - have facilitated options - but I think at the detailed implementation level is where we would just encourage the working group to look a little further. Just to illustrate what I mean by that, when I mentioned earlier one of the key principles was let market-led arrangements work in the first instance, if possible. What is currently being proposed, as I understand it, is a facilitated approach for these renewable extensions to connect remote generation where the entire investment would have a form of regulatory oversight, and a key point of difference that we say should be explored is let's only do

that for the incremental capacity that's needed for future generation to connect. Perhaps the foundation generators can negotiate quite successfully as they do now under the current arrangements for any capacity that they are paying for directly. So that just illustrates at a detailed level where we may suggest that we may not yet have quite the optimum solution, but we are keen to work more closely in exploring that and how that might work as well.

**JOHN TAMBLYN:** Thanks Rainer, and as you know, we have a working sub-group of the consultation committee we are working with that is working through the details of the option that we are now developing further, and so the kind of issues that you have raised can be discussed and debated in that context. We certainly want to test and make sure that whether we come up with is a workable model and the best of the options. So thanks for those comments. We're rushing a little bit here, and I apologise for that, but we have got two issues on the table for any comment from the floor. The question of how far congestion or potential congestion in the network should give rise to changes in both the generation area - short-term and long-term signals for the generators in terms of location and operation - and also signals to network businesses in terms of their investment programs, but also the way they manage availability of their network. These are issues that are now on the table and could involve either modest incremental changes to what we have, or more significant changes. I wonder if there are any views on that matter as well as the more detailed discussion we have put forward in our discussion paper of the approach we are minded to take on this question of connecting groups of remote generators who are remote from the network. So those two issues are open for observations, comments, based on what you have just heard, but also what's in our discussion paper. David, yes?

**DAVID HEADBURY:** While the mic's moving, can I just make one more comment. It's important I think that if we're going to have a..(not transcribable)..facilitated that it facilitates access from the generators right through to the node or to the loads, and that it would be such that once that access is granted it is protected so that people aren't in fact - as I think Rainer actually alluded to - once you pay for something, you should have that right.

**JOHN TAMBLYN:** And there are questions of improved price signals and incentives for location, and there are questions of property rights for access, and we need to work through all of those issues as to what's the right package. Back to you David, after that digression.

**DAVID BOWKER:** David Bowker, Hydro Tasmania. I think that Rainer made an interesting point about only having regulatory oversight for if you like the additional capacity, and he made the comment that people are successfully negotiating multiple generators, signing up for presumably no additional capacity, which wasn't my understanding of what was happening in the market, and particularly Eyre Peninsula I think was a place where there were multiple wind farms wanting to form a consortium, which never happened. So I was interested in if there any examples he could quote as to where there had been already - without additional capacity - these generators that got together and signed up for some capacity?

**RAINER KORTE:** I'm not sure that I said that there are examples of where it has happened, but I guess I'm saying I'm a little more optimistic in terms of the ability to have

some multilateral - for example, Terry Kallis we were speaking with this morning has been very active in terms of the hot rocks renewables in the north of South Australia, and trying to get parties together to develop a common business case for any network extension that might be needed up there. That's a good example of proponents getting together and recognising that they need to talk to each other to get a case up.

**JOHN TAMBLYN:** Thanks for that response, and it's the right question, I think, to raise, David, so thanks for raising the question. Other comments from the floor?

**MARK LAMPARD:** Just a question on things that had been reviewed. I haven't seen it anywhere. Has there been any review within this about the time it actually takes and the priority put on these sort of connections. Sorry, Mark Lampard of VEMTEC. I work for a lot of wind farm developers - smaller guys - and they get extremely frustrated with the time it takes to actually get connection. There is a rules process and that rules process is very rarely followed to the letter by the NSPs normally, and I was just wondering if there was any thought to a review of that and how that may be tightened or in fact regulated?

**JOHN TAMBLYN:** I guess the question of queues and bottlenecks and delays are going to be important ones. Rainer, can I ask you if you have got a comment on this point?

**RAINER KORTE:** Before I answer that, can I just make a comment on the earlier question that I neglected to make, and that is, one of the key obstacles that we have had to date in terms of coordinating multiple generators to connect at a common point is actually the confidentiality provisions in the rules that I think were alluded to earlier in the session. So that is something that we actually need to overcome. We need to be able to change the rules so that you can actually, if you have got a proponent talking to you - and you may have another proponent that is also talking to you nearby - you can actually talk to them and get them together; encourage that. Currently we don't have that. Grid Australia has actually put a rule change proposal to the Commission on that topic, which I believe people should see before too long. Can you just quickly remind me what this question was, sorry?

**JOHN TAMBLYN:** Time delays and queues.

**RAINER KORTE:** I think it was an issue that the Commission raised in its earlier papers that, will we indeed see as a result of the climate change policies an increasing number of connections that need to be dealt with and will that lead to bottle necks, et cetera. I think that we have the view that we will see an increase. Whether that increase is material enough that we need to take some drastic action is hard to say, but one idea that was put forward was an open season type of approach that could be taken to deal with the processing resources needed for connections where you might say, and there's some international precedents for this, "Between March and June there's a three-month window; if you wish to connect in this area, you had better get your inquiry into us now," and then you can deal with them all in one package. One of the difficulties that we have is that if you're dealing with a connection in one area and then another one comes along, you have already got a process in train, but they interact and affect each other, and you have to go to try and do it in a sequential manner. So there are some real practical problems that can arise with the processing and analysing and doing all the technical

work that is needed to deal with a connection inquiry.

**JOHN TAMBLYN:** And I think the question that we are raising is if there is, for example, an open season type process, and you do get foundation generators wishing to connect, but there is an arguable case - perhaps with some analysis - that there can be future connectors which are likely to be viable but the timing isn't right, do you still build for those that have signed up and committed, or is there a social efficiency case for the extra capacity, and how do you manage that? You have been saying, "Can you separate the two questions?" I guess we can look at that further, but that's the problem I think we're trying to address. Other comments from the floor?

**KATE SUMMERS:** Kate Summers, Pacific Hydro. John, you just touched on more or less what I was going to direct Rainer to - this issue about really we're looking at developing resource areas for the future, and foundation generators, as you were calling them. Firstly, all those projects will come in it with different timeframes, different delays and different financing arrangements and other things that may stop them from actually coming up with a transmission planning solution that is suitable for the long term. What we're seeing at the moment is that generators are connecting at what is cost effective to their project, where they can afford it, and there are not necessarily gaining good, reliable connections to the network.

In other words, you're doing a single T-connection, or you're doing a minimum cut in. You're not necessarily that would if someone was planning a large thermal machine, putting in a double circuit connection with all the reliability associated with it. So there are issues around the connection process - working at the moment in terms of long-term reliability, the ability to take out maintenance without affecting generation, et cetera, and it's all coming about as a result of this - the project has to afford absolutely everything and when we are looking at these areas like the Eyre Peninsula or the Great Artesian Basin, there's going to have to be some visionary thinking going into establishing backbones to those areas. Otherwise our transmission planning will be a dog's breakfast.

**IAN WOODWARD:** Can I follow up to a specific question. If the projects are not going to wear those costs, who are you proposing would do so?

**KATE SUMMERS:** I think ultimately, what we're talking about in terms of these hub arrangements is looking for a way in which you can fund a strong backbone. Whether that is funded through - at what is the risk of future generation coming into that area, I think you have got to do some very serious planning around that and try to assess that it will happen. Texas took the view that if they built the transmission, the projects will come. We have now got a policy environment under RET that would actually allow for the next 10 to 20 years of planning to come forward. So I think if the transmission is there--

**IAN WOODWARD:** My specific question is if the projects themselves - either current or prospective - are not going to bear that cost of that, who is going to?

**KATE SUMMERS:** I think we have got an Infrastructure Australia fund that is sitting there right now. These are the sorts of things we have to do.

**RAINER KORTE:** What Kate has mentioned just gives me an opportunity perhaps, John, to mention one other thing that we alluded to in our submission earlier in the process, and that is there is a tremendous amount of resource tied up in processing connection inquiries and connection applications, and there's a lot of technical connection issues that need to be dealt with. One of the things that complicates that is the current arrangement we have in the market of negotiable access standards, and I know the Reliability Panel is doing a review later on to revisit this area, but if we had more of a presumption that the automatic access standard was needed, and a generator had to actually start from that point and justify why they couldn't or shouldn't meet that, that would actually simplify it quite a lot; the connection process and analysis that has to be done.

**JOHN TAMBLYN:** I think the question of whether there are efficient and feasible ways of simplifying the process - reducing the transaction costs and time - are all matters that are worthy of consideration. Other points to raise from commentators?

**CON NOUTSO:** Con Noutso from True Energy. I have just got a specific question on intra-regional congestion. I'm just wondering what the Commission's view are in relation to the introduce of revised regulatory test - the RIT-T - and, of course, the introduction of benefits like options values that can actually be recognised in the regulatory test going forward. Are you actually satisfied that that will deal with the level of intra-regional congestion that actually eventuates when the CPRS and the MRET actually come in?

**JOHN TAMBLYN:** I might ask Colin to comment as well, but we are looking beyond the reforms that have already been made; we're now asking the question, and particularly but not entirely for intra-regional congestion, have we got the right signals and incentives for efficient location within region, and how can we - if there is a problem there - give better signals for the right timing and location of generation investment beyond what we have got at the moment. That is a quick comment from me. Anything to add, Colin?

**COLIN SAUSMAN:** I think the main point to note about the regulatory investment test for transmission is it's an improvement on what currently exists. The criticism and the reason we were asked to develop the RIT-T was a perception that significant transmission investments - whether they were inter-regional or intra-regional - weren't scrutinised to the same extent they should be in terms of an assessment of all the costs and benefits. So the RIT-T provides a single framework to make sure you do consider costs and benefits before significant transmission investment occurs, and my own view is that that is a step forward. Whether it is going to solve all issues of managing intra-regional congestion, almost certainly not. Transmission response is one part of how you manage congestion, and if the signals for generation aren't there, then you might efficiently identify the transmission investment that remedies or chases and inefficient location of decision a by generator. So it is definitely an improvement, but I don't think it would purport to be the silver bullet.

**CON NOUTSO:** What that necessarily implies is that the changes to the test are not actually going to deal with that intra-regional congestion going forward, if it's material. Is that what I hear you saying?

**COLIN SAUSMAN:** No, I think to the extent there are economic costs with

intra-regional congestion, they can be factored into the test when you assess whether a transmission solution is efficient or not. Rainer can talk in a bit more detail about what it might mean in practice, but the framework is there to say if intra-regional congestion is imposing the cost because you need to go out of merit more frequently, and there's a dispatch efficiency there, then that can support the investment. So it provides a framework to assess the right costs and benefits. So in that sense it should address the issue.

**JOHN TAMBLYN:** Could I just direct you to have a look at the Darryl Biggar paper that has been referred to, which takes a more comprehensive view to the network and generation issues - short term and long term - that bear on congestion and its management, and the options - the tools - that need to be considered in more comprehensively dealing with the problem, and I think Colin is making the point the improved regulatory test is one improvement; there are other tools which we will look at as to whether they need to be applied with a more congested network in the future.

**CON NOUTSO:** The only reason that I raise this issue is because I have had some informal discussions with TNSPs who seem to suggest that perhaps some of those changes aren't going to make substantial differences going forward in relation to the augmentations that are built within the system. So that's the rationale for the question.

**IAN WOODWARD:** Obviously, there are still process - the AER has obviously got process under the rules with respect to the regulatory investment test, and we continue to monitor from a market development. If you have any reconnaissance or information on that, we are always pleased to hear about it.

**CON NOUTSO:** Can I just ask one more question in relation to the NERG. I'm not sure, but I would just like the AMC to confirm this. If a generator actually goes out and funds some of that and pays for some of that NERG - some of that augmentation - it will actually get some sort of firm right to the capacity on that augmentation, and if it's constrained off, it can actually negotiate compensation with its NSP? Is that the proposal?

**JOHN TAMBLYN:** That is our proposal. I think that I'm right in saying that.

**COLIN SAUSMAN:** Yes, the NERG is meant to reflect connection assets. So the extent that your connection assets provide you a firm right through the connection, then it's the same. It doesn't provide a firm right to the node.

**SPEAKER:** That's in the basis of the proposal that is out for consultation.

**JOHN TAMBLYN:** As I understand it, correct me if I'm wrong, what we're saying is you get a protection from a future generator taking up that capacity that you have paid for.

**JAMIE LOWE:** Jamie Lowe, Loy Yang. But that capacity right is attached to the connection asset only. So essentially, if there is enough generators wanting a 1,000 megawatt line and it's connecting to a point where there is constraints, you have got a capacity right to get constrained. So I commend the AMC on the work they're doing in relation to NERGs and, in particular, talking about financial access rights, but I think there's a little bit of a concern there, and what is the incentive to stump up money if

you're essentially getting an access right to be constrained off?

It goes back to the logic that, should you be paying the full costs of the connection, including the augmentation to the shared network? In the Biggar paper, he talks about the suggestion of such a proposal, but says it's not consistent with proactive planning, where the TNSP is driving locational signals, which I am not sure is consistent with the infrastructure for the NEM, or the idea of generators driving or determining those locational decisions. So I'm just wondering to what extent we are going to have a discussion at some stage about it, because we seem to tinker around the edges quite often about the issue of the connection costs and access rights.

**JOHN TAMBLYN:** Could I say a couple of points. One, Darryl has put forward a very thoughtful paper, but we will decide here what actually gets done in terms of changing the market rules, but the issue you have raised goes to this question of what now needs to be done for the future about better management of congestion within the network. There are a range of models that are raised in the Biggar paper that could better address this question, including he has some discussion of deep connection; he has some discussion of constrained-on constrained-off payments; there are a range of models, and we are raising the question have we got to the stage where some stronger approach to congestion management in the shared network needs to be adopted, and what are the elements of that?

**JAMIE LOWE:** I think that the thinking, for example on page 13 of the discussion paper, goes some way to identifying some of these options, but we revert back to that blanket statement that there's no firm access in the NEM; it's open access. So therefore we seem to then brush aside the idea that when we talk about firm access here, we're talking about a non-physical financial right to compete at the level of dispatch, and I'm not sure that message is clearly coming through in the discussion paper, hence I felt like there was an incremental movement in the right direction, but we hadn't got completely the way there yet, but I'm happy to continue having those discussions.

**IAN WOODWARD:** I think you're right to identify that it's an area that we're opening up for further discussion. I don't think you should read anything into it; that the Commission is planning on making recommendations with respect to financial transmission rights on a wholesale basis across the NEM as part of a policy response to a framework on climate change. I just want to set the context here, because this is obviously an issue that has been around in the NEM for a very long period of time. However, we are recognising that there are specific issues with relation to congestion that are unique and particular, or exacerbated by the climate change policy issues with respect to the network incentive, and the interaction of the players. It's in that context that we have a remit from the MCE to look at these issues. So just put a boundary line as to where we are likely to analyse this.

**JAMIE LOWE:** That being said, I have heard commentary today being that where a CPRS initiated problem is consistent with a problem that already might have existed, there's a case for action regardless. So if you're saying that it's only going to be constrained to the extent it's for NERGS or something along those lines, I'm--

**IAN WOODWARD:** No, I'm simply making the point that we will raise and analyse those issues first and foremost from the primary basis of looking at the climate change police

impact. There may well be other beneficial elements that accrue to the NEM as a result of those policy recommendations.

**JOHN TAMBLYN:** Can I just add as well, you're looking for the answer. As Ian has said, we have opened up this area for further discussion and review, and you have identified the particular issue that might motivate that. It's a big question; we have opened it up for further review. We haven't got the answer yet, and we're not sure what form it might take or how far we will go. Yes, in the middle?

**SPEAKER:** Two comments. The first one is to support the point that Rainer made about the confidentiality provision of multiple connections. My experience with clients is that that is a really major issue for them, but the main point I wanted to make was there has been a lot of discussion with the transmission augmentation issue around new areas of investment in generation. There might also be a question of minimising I will say stranding, where you might get a coal rich area that is then going to find itself with a surplus of transmission. So most of the discussion has been on the new areas rather than the old areas in fact.

**ALEX CRUICKSHANK:** Can I just make a comment? It relates to the point Jamie was making. If you're trying to bank a new project and there are a number of generators that are actually out there building new investments and you can't guarantee you have got access to the node to get your energy out, then you are going to have got a lot of trouble getting money. It's that simple. You have got to be able to find some sort of surety of your fuel; your facilities and your access.

**JOHN TAMBLYN:** Thanks for that, Alex, very much. One or two last comments. We really have to start wrapping up I think, but just down there, yes.

**JONATHON UPSON:** Jonathon Upson, Babcock & Brown. I just wanted to have the committee clarify items 5 and 6 on appendix A. As I read it, let's say there's four foundation generators and they all sign a connection agreement, then the TNSP builds the hub and spoke system, then if the second third or fourth generator either fall over or get delayed, the customers then will pick up the remainder of the hub and spoke. Can you just go into that in more detail; just flesh that out a bit more, thank you.

**JOHN TAMBLYN:** Can I ask you just to respond there? I haven't got that in front of me, Colin.

**COLIN SAUSMAN:** So the basic idea is if you do oversize a link to create the hub, then on the expectation that some generation connects subsequently, and that generation doesn't turn up or it turns up later than you expected, then who should bear that cost risk? There is a couple of options that seem apparent to us. One is it's borne entirely by consumers; you are taking a between on the future generation appearing because you want to harvest the economies of scale that go along with building a big single connection rather than lots of small connections, and ultimately those connection costs get paid by consumers. So if consumers see the benefit, then the consumer should bear the risk.

That is one option. Another option is - comes to point that Tosh mentioned - consumers are particularly badly placed to manage this risk, so is that a reasonable

thing or is there a more efficient way to allocate the risk? One of the options seems to be foundation generators should know a reasonable amount about the prospects of a new generation in this area because they are building in that particular area. So should they bear some of the risk that new generators don't turn up. Then there's another option again which is should the TNSP bear some of these risks? So the model that we're talking about has consumers bearing some of that risk, but it's still very much an open design question which is should they bear all of it, or are there better, more efficient ways of actually allocating that risk around different participants?

**JOHN TAMBLYN:** Of course, this is all still under discussion and debate and testing as whether this is a model that is viable. One last comment from David.

**DAVID HEADBURY:** David Headbury, Major Energy Users. One of the issues that comes up is that we're now talking about this NERG approach, because we're trying to make it possible for remote renewable generators to come into the market, and they wouldn't otherwise be able to do so, and by getting them to get together and having a you-beaut bigger one shared amongst them would make it possible - commercially practical - for them to do it. The implication is that any generator then could join in, because you would have - got to maintain commercial neutrality, but why are we paying for conventional generation to be able to share in this benefit that consumers are underwriting when we are really only trying to do it just to make it possible for remote renewable generators?

**JOHN TAMBLYN:** Again, Colin, I just pass that question to you.

**COLIN SAUSMAN:** I think, practically, it is a bit unlikely that a gas plant would locate in a remote area of the network to pay a cost-reflective connection charge a long way away from the network. It doesn't seem to be a credible scenario, and it's not trying to give renewable generation a leg up; it's trying to present a cost-reflective connection charge like any generator faces a cost-reflective charge, but it's trying to avoid the risk to consumers that this generation is going to appear anyway, because that's the logic of the RET. So if it's going to appear anyway, how can you minimise the connection costs which are borne by consumers, and if you can find a way to group them into areas and build a single line, then that's a good thing.

**SPEAKER:** I would have thought anyway on that one, if down on the Eyre Peninsula you found that you had some coal seam gas, why would you not connect the gas-fired generator with the others that would be in the network? Under the NERG you just can't discriminate against the technologies.

**DAVID HEADBURY:** We are in heated agreement. I'm not proposing that, but we come back to the framework that you're looking at was to look at CPRS and ex-RET impacts, and here we are making a significant change to the rules to allow for conventional generation, and I remember actually talking about this back in 2005, 2006 and being told, "No, David, you don't know what you're talking about." So it just seems to be a shift that is being taken by the AEMC under the guise of the ex-RET approach.

**JOHN TAMBLYN:** David, at it's simplest, we are talking about a mechanism for efficiently connecting clusters of generators that are likely to be clustered in a particular region; the most cost effective way of connecting that group of whatever technology that

might turn up over different time frames. It's a mechanism for trying to deal with a cluster and a time frame difference, and we think it's likely that its an issue who's time has come. Not that I want to extend this debate.

**DAVID HEADBURY:** We are in heated agreement, John. The issue that I see is that we're now asking consumers to underwrite an augmentation which is going to be picked up perhaps by a conventional generator rather than what was intended under the process of under the ex-RET. If we are going to do this, why are we getting consumers to have to underwrite anything? Because the conventional generators can do their own thing. We're trying to give them a leg up as well at consumers' underwriting expense.

**JOHN TAMBLYN:** There is some logic in our reasoning, but we will keep testing the proposition in our working group, and I think you're a member of that working group. So we will push it through. I think I have got to close the discussion down, regrettably, because of the time. Can I just sum up briefly the day and talk about the way forward. I won't say much about the day, except to say that we have been very pleased with the contributions you have made. It has been very helpful to hear the views. I think there has been a certain amount of support for the issues we have identified as material, and the general direction we are taking on those issues, but quite a lot of work to be done in the detail, and I certainly heard some comments that some of the issues that we are not at the moment convinced are matters to progress. You are encouraging us to keep going on the work we are doing, and you have raised a number of issues I think we need to think about further. So we will certainly do that.

In terms of the way forward, I would invite anybody that has heard anything today or seen things in our discussion paper to put in any further brief written submission that you would want to. We would ask you to do it within the next seven to ten days, because of our timetable, and keep it brief, but if you feel that you want to now put a comment in because of what you have heard today or seen in our paper, please do so. For our part, we are now working towards our second interim report to be published on 30 June. We will have regard to submissions we have received; comments we have heard today; further submissions we receive and further analysis that we will undertake, and you will see where we have taken the matters we have discussed today in our second interim report, and there will be a further opportunity to comment on that report before we provide our final report to the MCE on 30 June.

So we will engage with you through submissions, through the reference group that we're running and the working groups, and of course there will be opportunity for bilateral engagement with the staff or the Commission as appropriate. So thanks again for your time and your patience in what has been a long afternoon.

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