TRANSCRIPT OF PROCEEDINGS



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AUSTRALIAN ENERGY MARKET COMMISSION

MR J. PIERCE AO MS A. WARBURTON MS M. SHEPHERD MR C. POPPLE

PRE-FINAL RULE DETERMINATION HEARING - WHOLESALE DEMAND RESPONSE MECHANISM RULE CHANGE REQUEST

SYDNEY

12.04 PM, TUESDAY, 6 AUGUST 2019

MR PIERCE: Good afternoon, everyone, and thanks for coming here today. We'd ask that everyone please switch their phones and other sort of devices onto silent if you haven't, otherwise this room is fitted with a phone jamming device to make sure that we don't get interrupted. This is a pre-final rule determination hearing for the wholesale demand response mechanism rule change request. The hearing has been requested by SIMEC Energy and ENGIE under section 101 of the National Electricity Law. I will be chairing today's hearing and also with me are my fellow Commissioners Allison Warburton, Michelle Shepherd and Charles Popple.

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We've had 11 people register to present at this hearing and the presentations will follow the order and times that have been allocated in the agenda and the times that those presenters have been notified of. Although, as I understand it, some individuals will be presenting on behalf of two or three different organisations or institutions and they've been allocated time accordingly. So the time allocation is based on the nature of the institutions rather than who is actually doing the speaking.

There is also obviously a range of stakeholders here that are attending as observers. During the allotted times each presenter will present their views to the Commission. The start and the end of each presentation will be marked by the ringing of a bell and a warning bell at two minutes prior to the end of the time.

- This hearing is being recorded by an independent service provider and the transcript that's produced will be checked for accuracy by the AEMC staff and published on the AEMC's web site, along with other documents that are used today by the presenters.
- During a hearing Commissioners may ask questions to clarify the points made by presenters. This hearing is really an opportunity for the Commission to listen to stakeholder views and we'll certainly be considering those views when making the final determination. But as a hearing, it's not a forum really for discussion or debate with the Commissioners or staff or other stakeholders here today. For those that have any sort of familiarity with our normal processes, there have been and always is lots of opportunities for that, both generally but also specifically obviously for this rule change proposal. There have been many of those opportunities to this point and there will be two further workshops for that purpose on 16 and 22 August. Submissions in response to today's hearing and the draft determination are due on 12 September and the demand response final determination is due on 14 November.

I suppose particularly to members of the media that are here today, and indeed to the stakeholders that are participating in this process, I just want to make it very clear there's been some misreporting about the effect of undertaking this

hearing on our timetable. So let me be very clear, there is no basis for saying that the holding of this hearing will delay in any way the time periods and the determination that the commission will be making. I'll make that doubly clear, the timing of the determination is not affected by the decision to hold this hearing.

But to allow the hearing to proceed smoothly, people are asked to refrain from making any disparaging or derogatory comments on things that others say. Any behaviour of that nature will result in a warning and persistence will lead to the participant being asked to leave or, indeed, the termination of this hearing.

With that introduction, I'll now call on the first presenter from SIMEC Energy, Marc Barrington, who I think is going to speak.

<MARC BARRINGTON, SIMEC ENERGY AUSTRALIA</p>

MR BARRINGTON: Commissioners, firstly, I wanted to thank you for accepting my request to hold a public hearing and providing SIMEC Energy this opportunity to address you. I appreciate that I have a short window and will read from a prepared statement to use the time to the fullest extent.

SIMEC Energy Australia is a relatively new energy market participant with a growing footprint and a suite of generation projects under development. We are the retailer to the South Australian government and many other commercial, industrial and resource based businesses, totalling one terawatt hour. We have approximately one billion dollars' worth of generation assets under development in South Australia, including the Cultana solar farm, Playford utility scale battery and the Middleback Ranges pumped hydro storage.

I want to make clear at the outset that SIMEC Energy is highly supportive of demand response both in front of and behind the metre, but I am a firm believer that the free operation of markets and ensuing competition will deliver the best outcomes for end-use customers and not additional regulation. I am investing considerable resources to grow our current demand side capability to differentiate SIMEC Energy's product and service offering from other retail market participants in what I consider to be, from experience, a very competitive market.

DR economics can definitively be a positive for retailers and it is an additional insurance product which we can and do use to mitigate customer exposure to hostile markets. DR is an alternative to buying other insurance products, including caps and hedges, and owning our own generation capacity. DR can deliver win-win outcomes for ourselves and, importantly, our customers. We

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are well-placed, given my team's considerable skills and experience to deliver DR capability on behalf of our customers.

- We have in fact built up a cohort of customers willing to share the benefits of doing so with us. But from experience, one of the limiting factors to DR participation is the customer's demand profile. Further limitations to participate include their type of business, access to back-up supply options. It's a much easier proposition to engage with customers who can simply substitute energy supply to meet their own energy needs. But this is not where our interest in DR solely lies. There's also the sophistication of their own energy management practices and understanding of the market and its operation. There are times also of peak energy use as not all customers have peaks corresponding to market peaks.
- From our perspective, these customer issues are largely insurmountable; that is, they exist regardless of any measures or schemes. Yes, we are slowly and methodically picking through these issues with our customers to deliver demand side capability, which we have been successful in doing. However, we do not see how the proposed rule change will systematically address these issues by delivering significant demand side response whilst still incurring additional transaction and administrative costs.
- I genuinely consider that by allowing the market to work with retailers such as ourselves actively prosecuting DR, coupled with changing technology, we will get increased DR participation without additional regulation. In seeking to insure our customer load against the wholesale market price, we weigh up the cost of all possible alternatives. That includes hedges, caps, weather product and physical generation and demand side response.
- 30 Given all of the possible alternatives, it is important that DR is cost competitive against all possible options largely hedges and caps with sufficient head room to allow for the financial benefits to be shared with our customers in order to facilitate participation. Historically retailers have found it difficult to find cost-effective ways to develop an economic DR solution where there is enough value for the retailer and the customer to warrant investment in platforms and hardware to deliver effective DR capability. However, emerging technologies, both hardware and software, are now enabling this.
- 40 So the business case for DR investment by retailers is starting to stack up.

 SIMEC Energy has successfully secured DR participation from its customers and is pushing to grow this capability as a clear service differentiator from other retailers. My concern is that the implementation of the demand response service provider could stymie the natural development of this market. This is simply because the DRSP will insert themselves between the host retailer and

the customer and offer the DR provider the wholesale price for the DR capability. This price is likely to be multiples of the price that we can offer and may reduce the interest in our DR offer.

- In an already functioning market with a small value pool, the proposed mechanism overpays for a DR response by offsetting to pay at a wholesale market price. This is then divvyed up between the DRSP and the market and then the customer and is in addition to the benefit that the customer already receives from reducing their energy consumption against the wholesale price.

 Considering that a unit of DR is a unit of DR whether it's bid into the whole market or managed by the retailer outside of the pool, paying the wholesale price is an inflation to DR's value, particularly when it's compared to other insurance products that can be used to mitigate the exposure of customer load.
- I also fully appreciate that under the proposal I can become a DRSP but I would question why should I become licensed to do something which I am already doing? It's simply regulatory red tape with additional costs which, in a highly competitive retail market, changes our business costs and our competitiveness. On the issue of costs, I note that I will still have to hedge our company exposure against the wholesale pool price as the DRSP will have the capability to trigger demand response. This will not sit with me but the host retailer.
- I also wanted to raise the issue associated with baselines. Although SIMEC
 Energy uses baselines in determining its customer DR response, I consider that our exposure in terms of mitigating baseline inflation is manageable given our close relationship with our customer and that our DR payment is not directly correlated to the value of the wholesale market price but is more closely linked to the value of other competing risk management products. Our approach
 diminishes the incentive to inflate the baseline. We also have a clear incentive to monitor the baseline and to ensure the robustness of the scheme, mitigating any additional regulatory costs.
- Based on our experience and customer knowledge, we also expect that there
 would be a very small pool of sophisticated end-users that would be attracted
 to this type of service offering being put forward in this rule change. I also
 wish to raise the point that there is no assessment of the impact of this measure
 on five-minute settlement to be implemented in 2021 and to the further market
 reforms slated for consideration. This includes the Energy Security Board's
 2025 market design work. As a relatively small energy market participant, we
 are not in a position to continually incur the costs of reform after reform.
 Market change and compliance is not a costless exercise, with the end-use
 customers ultimately having to foot the bill. Large market participants are
 more likely to be able to weather the costs of such changes but for small
 participants such as ourselves, these are not insignificant costs.

In closing, SIMEC Energy strongly recommends allowing retailers to lead the DR response and therefore not implement this change. Pushing this market reform on top of market participants already active in this space can impede efficient market development and diminish efficient market outcomes. I am confident that with the increased customer engagement and change in technology costs that we will get increased DR participation without additional regulation. Thank you, Commissioners, for your time and for allowing me to put forward our views.

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MR PIERCE: Thank you, Marc. ENGIE, Jamie Lowe.

<JAMIE LOWE, ENGIE AUSTRALIA AND NEW ZEALAND</p>

MR LOWE: Thank you to the Commission for giving ENGIE Australia and New Zealand the opportunity to present today. Use of a demand response mechanism has unfortunately become something of a political football. This has seen some interest groups become highly critical of those who would beg to question the merits of any given proposal. This sort of criticism is not only misplaced but illustrates the challenges faced during the energy transition. That said, it is not the role of the Commission to implement good ideas purely because they advocate it broadly but to ensure only proven and well-articulated ideas lead to changes in what has all-in-all been a highly successful electricity market.

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ENGIE strongly supports the work of the Commission and believes it continues to do an outstanding job. However, ENGIE retains a number of legitimate concerns regarding the proposal. These concerns relate to the DRM only, not the importance of demand response generally. As a customer facing business, ENGIE welcomes, encourages demand response and notes it has always been and will continue to be an essential feature of the market.

Nature of demand response: the debate about DRM gives rise to two points which have never been appropriately resolved and undermines the case for amending the market to support a highly complicated model. First, expectations around the right amount of demand response have become so alluring that little evidence is presented in support, nor do they acknowledge the success of the market design. ENGIE has first-hand experience of working with its customers to progress demand response opportunities, has a virtual power plant project underway in Australia and many overseas, and has previously launched a number of programs and platforms to influence consumption and demand.

Second, retailers and AFSL holders are more than capable of currently operating as demand response aggregators. There has never been a stronger

argument as to why business models who wish to engage with consumers and the wholesale market should not have to (1) face the same wholesale market risk as other participants; and (2) face the same licensing and financial obligations as existing participants.

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ENGIE's assessment framework: in assessing the draft determination, ENGIE considers that any demand response arrangement will best meet a customer's needs when it is simple to operate and understand, flexible under a range of market conditions, transparent to the market, has low transaction and low implementation costs, is scalable to the customer's initiatives, has a short implementation time frame, is compatible with existing arrangements, and more importantly can maximise the value returned to the customer, not a third party. ENGIE is not convinced the draft determination satisfies any of these criteria. In fact, ENGIE is very confident customers seeking a better demand response deal would be able to structure an option to get maximised financial benefit now as opposed to waiting till 2022. I would be happy to put any such customers in touch with our energy management team.

What is being proposed is a highly complex arrangement which creates a

further overlay on the operation of the market for a service that can already be
provided, will likely have high transaction costs, with an expectation the bulk
of the financial benefit will go to aggregators; may lead to high compliance
cost; is expected to have a long implementation time frame; requires system
modification costs of at least 8 to 14 million dollars for AEMO, let alone other
affected parties; and will see AEMO's role change to include settlement and
transaction of non-physical products; requires the determination of baselines
which can only ever be inaccurate and uncertain; and relies on inaccurate

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The draft determination has some significant supporters. However, it may be giving rise to false expectations. There is no new money and participating customers are simply getting a portion of their hedging costs, as contained in the retail tariff, given back to them during demand response events, with a larger portion going to aggregators. The retailer is unlikely to be left whole as the reimbursement rate will be imprecise and the market is likely to evolve an appropriate risk premium if this practice becomes widespread. If this practice does not become widespread then this issue would likely be put to the side. However, if this is the case then justification for introducing such a complex model needs to be further questioned.

reimbursement to retailers, and this sort of subsidisation and smearing is something the AEMC has previously and historically always worked against.

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A two-sided market: if the Commission has a two-sided market as a future ambition then there may be simpler, easier changes which could more quickly be adopted and are likely to have larger pay-offs for customers. First, the Commission could mandate participation of large loads in the market above a

designated threshold. Large loads are already, by their nature, actively involved in managing their energy costs in light of recent challenging price increases. Forcing large loads to opt out of managing this risk themselves as opposed to opting into being market customers may be a low risk nudge of that customer class. Further, if, as those advocates continually suggest, there is a large untapped appetite for demand response, mandating participation would ensure that the market strives to best meet the needs of these customers in the most tailored manner, through both retail hedges and demand response. The attraction of allowing the market to settle the best arrangements to manage customer price risk and facilitate demand response over a single party's preferred business model should not be lost on the Commission.

Second, the Commission could mandate for retailers to make spot price pass through arrangements an available option for smaller loads and for mass market customers, to the extent they're comfortable. Anyway, the benefits also can be better captured more broadly. The notional additional benefit of the draft rule change is a better measure of smaller price sensitive loads in the dispatch process, but what the draft determination fails to clarify is if the current arrangements don't provide enough signal to incentivise the right level of demand response, whatever the right level is, how will participation be increased under a new arrangement with reduced financial incentives. It is not beyond reason to suggest that the proposed DRM will result in costs that are higher than the proposed derived benefits for many potential participants.

ENGIE welcomes increased demand response but it does not believe that the proposed model will result in changes that will be highly valued by customers. So in conclusion, ENGIE remains focused on delivering innovative energy and service solutions for customers that meet their unique needs during the energy transition. ENGIE remains concerned about the proposed DRM will not be overly successful. It provides a payback to customers which is arguably less than which is currently available. Without a major change in direction, the proposed arrangement will provide a rich ground for consultants, demand response service providers, software developers, regulatory compliance staff, but is unlikely to deliver a large benefit for customers. ENGIE thanks the Commission for its time today.

MR PIERCE: Thank you, Jamie. Now, we have the Public Interest Advocacy Centre, Craig Memery.

40 <CRAIG MEMERY, PUBLIC INTEREST ADVOCACY CENTRE (also speaking on behalf of the AUSTRALIAN COUNCIL OF SOCIAL SERVICES and AI GROUP

MR PIERCE: Could you just clarify for us, Craig, who or - - -

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MR MEMERY: I can probably pre-empt your question and clarify that.

MR PIERCE: All right. Thank you.

MR MEMERY: Thank you, John. So today: PIAC is a member of the Australian Council of Social Service and ACOSS, along with other jurisdictional councils of social service, have written to the Commission which they've asked me to present to you today. I've passed a copy there for each of you and a copy will be available for anyone who would like one in the audience as well. Tennant Reed, also from the Australian Industry Group, representing large users, is unable to make it today because he's sick. So he's asked me to pass on a few comments, which I will, and I have just some of our own notes mostly in response to points made by Marc and by Jamie. I apologise, I can't speak as fast as Jamie so I'll try and get through them as quickly as I can though.

MR PIERCE: And is the Australia Institute - - -

MR MEMERY: So the Australia Institute is also unable to make it but they've passed some comments on to Rosemary from Energy Consumers Australia, who will mention those in her's when she's up.

MR PIERCE: Okay.

MR MEMERY: We've tried to take care of your agenda wrangling for you by accommodating these changes as they've occurred without imposing extra time on you, for the Commission.

MR PIERCE: Okay.

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MR MEMERY: So with apologies for any confusion about that. So I will start off. This letter has been provided to us by ACOSS, and I will read it for the benefit of all here:

35 Dear Commissioners,

We, the undersigned Councils of Social Service, are writing to express our support for the proposed change to the National Energy Rules to enable third parties, demand response providers, to participate directly in the wholesale market as a substitute for generation and be paid for providing this type of demand response. The draft determination recognises the need to move towards a two-sided market in which consumers are incentivised to reduce their demand while ensuring that the administration and implementation costs are borne as much as possible by those who

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directly benefit from demand response events.

The Australian Energy Market Commission's Power of Choice Review in 2012 estimated that the potential benefits of demand response were worth between 4 and 12 billion dollars in the period from 2013-14 to 2022-23 -

notwithstanding that's retrospective analysis, obviously. Sorry, forecasting was made retrospectively -

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with benefits flowing through to power bills for all consumers. The Councils of Social Service are particularly concerned about people on low incomes who are being caused significant financial and physical stress because of unaffordable energy bills. People on low incomes are spending 6.4 per cent of their income on energy which is up from 5.6 per cent only a decade ago, compared to the highest income households that spent 1.5 per cent, which is only up from 1.4 per cent a decade ago.

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We believe people on low income would benefit significantly from greater demand response in the wholesale market. We understand retailers have argued against this rule change, stating that they would deliver demand response initiatives. However, we note the retailers have been in a position for decades to engage in demand response, yet the amount of demand response in the market is still trivial. There remains no evidence that retailers have substantively increased their engagement in demand response since the AEMC commenced the introduction of demand response mechanism in 2012.

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For those reasons, we support the development of demand response mechanism that will enable third party demand response service providers to participate directly in the wholesale market. However, we urge the AEMC to change the following two aspects of the decision: (1) being the deferral of the commencement of the mechanism until July 2022. With some (indistinct) demand growth and an ageing coal fleet, the risk of blackouts and interventions is too great to wait another three summers without bringing demand response into market. We understand that the Australian Energy Market Operator can make the necessary changes for an earlier start. We concur with PIAC, Total Environment Centre and the Australian Institute that the mechanism could be brought forward and should be brought forward as far as possible within the capabilities of AEMO.

The second point is regarding the decision to exclude residential consumers while new consumer protections are considered. As organisations that advocate on behalf of people experiencing poverty and disadvantage, we are attuned to the concerns regarding consumer protections. However, we argue that there are household demand response options which have no risk of affecting people's quality of life, such as pool pumps and household batteries that, if aggregated, could offer a lot of value to markets and to households. Secondly, Australian Consumer Law already provides key consumer protections people need for many demand response contracts, like pool pumps and household batteries. These loads could be part of the demand response market from day 1.

Third, the work on extending existing consumer protection arrangements to deal with more sensitive and complicated loads such as airconditioners and electric vehicles should be commenced as soon as possible. Fourth, and finally there is no reason that there can't be comprehensive consultation for adequate protections in this space before the implementation date.

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And I would note that the AEMC has also made similar points on that front.

Taking into account the above, we urge the AEMC to include residential consumers at the commencement of the scheme.

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So this letter has been signed off on by the CEOs of ACOSS, of ACTCOSS in the ACT, VCOSS in Victoria, TASCOSS in Tasmania, SACOSS in South Australia, QCOSS in Queensland and NCOSS in New South Wales. For a moment I will take off my ACOSS member hat and go to some comments that have been provided by Tennant Reed of the Australian Industry Group. So going from small consumer representation to representative of the largest energy users in the country. Tennant says:

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For many years we have failed to make the most of our demand response potential. This was frustrating but endurable when we had a big buffer of excess generation capacity and depressed wholesale electricity prices. Demand response is now a critical source of flexibility as the wholesale energy market deals with breakdowns, closures, variable renewables and the high price of gas.

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There are several ways to get at demand response and one size does not fit all. Direct participation in the wholesale market or full exposure to its risks are manageable for some energy users and off-putting for others. Retailers have not been enthusiastic about demand response until very recently and should not be the soul gatekeepers for energy users cautious about direct exposure.

AI Group and many energy users support the PIAC and South

Australian rule change proposals as positive and fair efforts to
unlock more demand response potential. The AEMC's draft
determination is an excellent synthesis of the proposals and
concerns about minimising implementation costs. It would not
add additional layers of regulation but open the wholesale market
to new participants, giving consumers more options to manage
their energy costs and lower the cost of electricity for all
consumers.

There may be room to improve the AEMC draft further. We are hopeful that the implementation could be faster than the suggested transition period. At a minimum, the system should be ready to operate at scale. We've already determined baselines and registered DR participants from day 1. Participation by a wider range of small energy users would be positive and the further work on adding these flags by the AEMC should be a high priority once the consumer protection environment is clearer.

Finally, Tennant says:

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25 Energy users would be deeply dismayed if the current process led to no result. Demand response mechanisms have been debated for many years. The nearly successful push from the Power of Choice Review and COAG consideration in 2012 came to grief as momentum and urgency dribbled away. The further demise of that effort in 2015-16 came just before the surge in prices and concerns about reliability that make demand response so obviously necessary today. We cannot repeat these mistakes.

And just some comments to respond to the thoughts presented by Marc and Jamie. Marc noted the impacts that such a measure would leave on the market and that it would be appropriate for the AEMC to consider any and all alternatives, which include not implementing the change. I'd like to say that I agree with Marc as the one consumer advocate who has been consistently involved in this process since about 2011 when the Power of Choice Review started; as a member of the reference group that the AEMC had then; as the only consumer advocate that was on AEMO's advisory group in developing the demand response mechanism proposal, which is very similar to what the AEMC has put forward now, back in 2013 and 14; being involved with the ministerial deliberations over that before a new or a different rule change was put forward to the AEMC; and engaging with the AEMC when I think they

rightly decided that that particular proposal wasn't going to be an effective one in 2015.

Having been on the technical working group for the AEMC's Reliability

frameworks review that this came out of and now being closely involved with
the AEMC in this process now, I can assert that the AEMC is absolutely
considering any and all alternatives, including having considered not
implementing the change at all. I'd say the AEMC has left no stone unturned,
even if that's involved turning over a few cowpats just because they look like
stone, just to make sure that every option was considered along the way. I'm
not making a specific comment about the Australian Energy Council proposal
in making that comment.

SIMEC considered that pushing the market reform on top of market 15 participants that are already active in the space could impede efficient market development and considered that by allowing the market to work retailers could actively pursue demand response. I note that the PIAC research that we did in 2018 and again in 2019 where as a mystery shopper we engaged with all of the retailers that were offering retail energy products to New South Wales 20 households and found that in 2018 one, and only one, retailer, and a small retailer, was offering that service. In the intervening year, retailers made quite a lot of claims about the amount of demand response that they were now doing, so we looked forward to repeating the survey again in February 2019 and found exactly the same result. The facts of the matter are that retailers are not 25 offering demand response for households and certainly not optimising the position of demand response in the market.

I would also argue that it's completely reasonable that retailers themselves choose not to do that. It's not their responsibility to find the optimal position for the whole wholesale market. It's their responsibility, their incentive, to optimise their own retail position and their own wholesale position. It's really important that we recognise that those two things are not one and the same. Retailers are very good at hedging their wholesale risks through the contracting and through the investment that they make in generators and they should be encouraged to do that.

I would not support the measure the Jamie suggested as a way of getting around it, which would be a rather over-regulatory method by requiring retailers to actually offer demand response spot price too, I think that would actually limit the ability for retailers to most efficaciously manage their position. In the interest of time, I will go to a final point, Marc says that he's a firm believer in the free operation of markets and ensuring competition will deliver the best outcome for end-use customers and not additional regulation. Again, I agree with Marc on that front. So I know that the AEMC reform is actually deregulatory in nature. It's not imposing new regulation. It is

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removing barriers that are currently set in place.

If a demand response provider wants to provide demand response services and link a customer to the wholesale market for just a few hours a year, that it 5 benefits the customer and the market to do so. The barriers that face them currently include that they have to register as a retailer and become responsible for the entire wholesale position of that customer. I would argue that therefore the proposal that the AEMC has put forward neatly removes some of that regulatory burden that would be required. In closing, we support the AEMC's proposal and the modifications that were suggested by ACOSS and its members. Thank you.

MR PIERCE: Thanks, Craig. I wasn't quite - I realise you're going to speak on behalf of the Australian Institute a bit later, so I think it's the South Australian government. Hi, Mark.

<MARK PEDLER, SOUTH AUSTRALIAN GOVERNMENT

MR PEDLER: Thank you for the opportunity to read a statement on behalf of the South Australian Department for Energy and Mining. I can advise the Department will participate in the stakeholder workshops and the draft determination to ensure its views are communicated and debated with the wider stakeholder community. The purpose of today's statement is to ensure the Commission received wider views on the draft determination at this hearing than those who requested the hearing are seeking to assert.

The South Australian government welcomes the Commission's draft determination on the wholesale demand response mechanism. The draft proposal will ensure the wholesale electricity market moves a step closer to a two-sided market, optimising generation and reduction for lowest wholesale electricity costs. We are at a critical point in the electricity market's evolution, which makes a framework for a two-sided market more critical than ever. Wholesale electricity in Australia is changing rapidly with the closure of coal fire power plants and the transition to a carbon constrained future. Without effective frameworks to ensure a two-sided market, there is a significant risk of over-investment in electricity infrastructure to the detriment of consumers.

People are making investment decisions now. This means we cannot delay implementing these frameworks, especially considering that a transitional period is proposed for supporting system and procedural changes. If I use South Australia as an example, minimum demand is reducing. There's levels below 600 megawatts recorded. Every day demand on the system is around 1500 megawatts and peak demand over 3000 megawatts. I doubt many would disagree with these inefficiencies associated with the infrastructure required to service these peak periods. Generation infrastructure that services this peak

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demand is reaching the end of its life. We have seen the closure of the Northern Power Station in South Australia, Hazelwood Power Station in Victoria and further closures are expected in the near future in New South Wales.

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The question for policy-makers is the efficient way of continuing to reliably service Australia's electricity needs. The Department is of the firm opinion there are many instances where wholesale demand response can more efficiently contribute to reliability. The rule change promotes great opportunities for consumers to participate in demand response which will result in increased competition in the wholesale electricity market. It does this by providing greater transparency of the value of consumer demand response and opening the market for more parties to help consumers capture this value.

In South Australia, the Department receives communications from large electricity customers, which receive an offer from maybe one or two retailers to provide their electricity needs. I'm sure the Commissioners will agree this does not place these large customers in a strong negotiating position if they are seeking to derive value from the demand response capability. Whether or not the offer is value, the consumer's demand response capability will also be highly dependent on the retailer's portfolio and position in the market. For example, if a retailer has adopted a long position in the financial markets to protect against high spot prices, it may not value a consumer's demand response capability. The electricity system may, however, value a consumer's demand response capability even if that particular consumer's retailer does not.

The Department therefore welcomes the draft determination. It will allow third parties to help consumers and the electricity system capture this demand response capability. There are currently challenges for third parties wishing to provide (indistinct) demand response under the current framework. They can only do so by either becoming a retailer or having a commercial relationship with one. Dumping the retailer model means the third party needs to manage all the consumers' electricity needs, which in some jurisdictions is difficult due to issues with wholesale contract liquidity. Developing a commercial relationship with a retailer may be possible in some circumstances but again this will depend on the retailer's position in the market.

There are a number of components of the draft determination which help overcome these problems, one being creation of the demand response service provider. Allowing a greater number of parties to assist customers to value the demand response capability: the Department's view is that there are already a number of third parties that are well placed to become demand response service providers and these third parties are engaging constructively in this process to ensure an efficient market is developed. The second component is transparent value for demand response capability through the ability of the demand

response service provider to be paid at spot market prices. The draft proposal provides other system-wide benefits too. In particular, demand response is proposed to be scheduled (indistinct) providing the opportunity to cover the intermittency of generation entering the wholesale electricity market. This also means that the Australian Energy Market Operator will have greater visibility of demand for its forecasting functions, providing more robust information to market participants.

The mechanism that facilitates demand response in the wholesale market has been proposed for many years. Finkel panel recommended the approach, as did the ACCC more recently in its retail electricity pricing enquiry. The Department notes that a perceived (indistinct) demand response in the wholesale market is the creation of baselines. This has been an issue of significant discussion during the development of the draft determination. The argument is often put forward that baselines will create perverse incentives.

It is important to note that all markets and regulatory frameworks create incentives and ensuring these incentives are efficient comes down to the market design and framework. Whilst the Department is still considering the detail of the draft proposal, at a high level it is noted that the creation of a significant role for AEMO in the creation of assessment of baselines seeks to manage the issue of perverse incentives. Additionally, it is noted that the materiality of this risk is often overstated, considering that large consumers' core business is not in the electricity market and they are unlikely to be driven to (indistinct) electricity market revenue at the detriment of their core business.

The other issue which over time has been raised as an option to this type of mechanism is the administrative cost and impact on retailers. It is on this matter that the Department commends the Commission for its innovative thinking on how to minimise the costs associated with implementation of the draft proposal. The matter of settlement that's dealt with under the draft proposal seeks to keep implementation costs to an efficient level. We note the Commission's position to exclude small customers from participation in the short term, whilst a broader view of consumer protection can take place. The Department encourages the Commission to consider this matter as a priority. Technology innovation for small customers is occurring rapidly and this could enable these customers to be a significant contributor to demand response and efficient wholesale outcomes.

In summary, we see consumers benefiting from this proposal in two ways: firstly, it means that they can be paid directly for reducing the energy they intended to use at peak times; secondly, it lowers costs for everyone by reducing the need for expensive peak regeneration plant and network upgrades to meet peak demand. The proposal will ensure efficient wholesale electricity costs by allowing generators and demand response to compete on equal

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footing. It will ensure that demand side will play an integral role in the future of the NEM. We consider the draft proposal will create competition in the offering of demand response products, will unlock demand response potential and its implementation is a priority for the efficient transition of the electricity sector. We therefore welcome the AEMC's draft determination and look forward to participating in the stakeholder workshops. Thank you.

MR PIERCE: Thank you, Mark. Energy Consumers Australia, I think. Rosemary, you've also been asked, as I understand, to speak on behalf of the Australia Institute. Is that correct?

MS SINCLAIR: Yes.

MR PIERCE: Thank you.

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<ROSEMARY SINCLAIR, ENERGY CONSUMERS AUSTRALIA (also speaking on behalf of THE AUSTRALIA INSTITUTE

MS SINCLAIR: Thank you very much to the Commission for time to contribute to your further thinking about your draft determination. I do have two roles. The first role is on behalf of the Australia Institute to read a short statement because they were not able to be here with us today, and then I'll go to the Energy Consumers Australia contribution. So the Australia Institute statement:

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The Australia Institute thanks the AEMC for the time today. The draft rule released on 18 July is excellent and provides the right foundation for a final determination in November. Today the Australia Institute releases a discussion paper to support the AEMC's rule change process. This is about the global trend to competitive demand response markets. It complements the work commissioned by the AEMC from the Brattle Group.

Recent data from the International Energy Agency shows that
demand response increased by about 4 per cent in 2018.
Strikingly, the IEA says that global potential is equivalent to total
US annual electricity demand. The IEA commends the pro
competition model whereby new aggregators enter markets to
provide demand response. This is the architecture of the AEMC's
draft rule. It is also the paradigm for demand response reform in
China, America and the EU.

The IEA recently published a report titled China, Power System Transformation. It shows demand response is central to the future of electricity in that country. The scale in China is prodigious.

One pilot in Zheng Xu province delivered load reductions of over three and a half thousand megawatts.

The Australia Institute asked me to emphasise on their behalf that from their perspective the debate about demand response in Australia should be about how to refine the pro competition model so that it works best in Australia and delivers the greatest benefits to households, industry, agriculture and the economy.

The Australia Institute recommends that the AEMC considers bringing forward the commence date for the rule change into 2021 so that the market can develop well ahead of the closure of the Liddell Power Station in 2023. The Australia Institute also encourages the AEMC to include households from the start with appropriate protections.

That's the end of the Australia Institute statement. I now go to Energy Consumers Australia's contribution. As the CEO of Energy Consumers Australia, I'd like to thank the Commission for the opportunity to speak to consumers' interests in this proposed decision. In my time I want to cover four topics: firstly, what consumers are telling us that's relevant to this decision; secondly, what the AEMC's draft determination is saying in our view; thirdly, whether that draft determination is applying the National Electricity Objective; and, lastly, I want to comment on the matter of consumer protection and small consumers.

Our focus, of course, at ECA is on households and small business consumers and we support the Commission's draft determination. We're aware also that large businesses support the rule change through the EUAA's submission and press releases about this matter. These, of course, are the businesses for whom the draft determination would apply on 1 July 2022. We think that further reflection on the implementation timing is needed in regard to small consumers but we accept absolutely that existing protections are important and I'll come back to that matter.

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Firstly, what are small consumers telling us? The question really is are consumers interested in demand response services. Our six-monthly energy consumer sentiment survey results in June 2019 asks the question, "How confident are you in your ability to make choices about energy products and services?" Nationally households say that they feel they're quite confident at over 60 per cent and nationally small businesses agree that they feel quite confident at over 55 per cent. However, consumers are less confident about the availability of information and the tools they need to make the choices they want to make about energy services and products. Happily, consumers are now expressing increased confidence that technologies will advance to help them

manage their energy costs. We have around 50 per cent of consumers expressing increased confidence about the role of technology.

We also asked residential customers about their use in periods of peak demand and they tell us that about 45 per cent are prepared to reduce their use in periods of high demand. An additional 25 per cent of consumers have indicated that they are interested with an incentive. 60 per cent of small business customers think consumers should be rewarded for reducing energy use during peak periods. Recent qualitative research that we've been doing also suggests that consumers think that an important contribution to managing the energy transition will be adapting their use to reduce cost. Evidence in New South Wales in February 2017 in fact showed an immediate response to media requests from the minister. On Saturday, 11 February there was a reduced demand of 300 megawatts and the day before, Friday, reduced demand of 200 megawatts.

We also note recent research from RMIT on how to better engage with small consumers in demand response services and of course the research by the Australia Institute reflecting global progress that I mentioned earlier. We see all of this as evidence of consumer need being expressed by consumers that is not being addressed by current market responses or arrangements. After waiting for many years for these services to emerge, it now seems necessary to provide regulatory support through rule changes.

Let me move now to what we think the AEMC draft determination is saying. In fact, that rules are needed to support the development of this market to meet consumers' needs. Evolving technologies are now enabling further demand side participation in the wholesale market and increased transparency and information on wholesale prices is available. This will lead, in our view, to more active participation - in NEO terms, more efficient use of electricity - by the demand side and that will lead in turn to more efficient consumption of electricity by those consumers and a lower cost combination of substitutes for generation and network services for all consumers and achieve more affordable, more reliable services for all consumers.

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The Commission's decision creates a new class of market participant who can create value for demand response in the wholesale market. Value for the system in the form of schedule demand response services, value for individual customers through payment via commercial arrangements, value for all consumers through increased competition and lower wholesale prices, value for all consumers through more efficient investment in network services. In our view, the Commission's draft determination offers increased competition, more choice for consumers and shared value. The proposed mechanism builds on existing market processes and is focused on least cost implementation.

Let me now move to our assessment of whether the draft determination is in fact applying the National Electricity Objective and I'll do this element by element. So starting at the beginning: "to promote efficient investment in", we think the draft determination brings additional competitive pressure to bear in the wholesale market and flows through to network investment; "and efficient operation and use of", we think the draft determination brings to life demand side engagement in wholesale markets. Electricity services: the draft determination includes energy use and management for and by consumers as a new service. For the long-term interests of consumers of electricity with respect to price, the draft determination will, in our view, lead to better price outcomes for individual customers and consumers overall. Quality, safety, reliability: the draft determination allows efficient use of energy to play an increased role in achieving the reliability consumers prefer at the value they assign. Security of supply of electricity: the draft determination allows the efficient use of electricity to play an increased role in achieving security of supply.

Let me now comment on the consumer protection issue. We note the Commission's position that the new class of market participant is not a retailer 20 and therefore the existing consumer protection responsibilities of retailers will not apply. We are encouraged that the Commission will look at this issue expeditiously through its 2019 retail competition review process. If energy specific consumer protections are required, we would encourage the Commission to explore the new energy technology consumer code process as a 25 possible way of developing a relevant consumer protection framework. We would also suggest that the Commission's proposed regulatory sandbox arrangements for innovative technologies and business models might also be used in extending demand response technologies and business models to small consumers. The use of a limited scope for early experience in small consumer 30 demand response service development would provide a laboratory to test the adequacy of consumer protections.

Let me conclude by summarising the reasons for our support for the Commission's draft determination using our own framing. Energy Consumers Australia supports the Commission's draft determination to change the rules to introduce wholesale demand response. We see this decision as contributing to an energy system and market where affordability is a constraint on investment and decisions about energy, an explicit criterion in decision-making up and down the supply chain. The draft determination offers the possibility of affordability as an opportunity for energy service innovation.

We also want a market where energy services are built around individuals to reflect their unique circumstances, enabling people to easily manage their own use and costs; whether that is consumers who are innovating and engaged or the majority of consumers who are focused on affordability and costs, or

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consumers with vulnerabilities. We want a market where investment in the power system, networks, generation, retail, and recently of course consumers' own investment in the power system is optimised and based on consumers' demands that not a dollar more is spent than is necessary and not one day earlier than needed. We see the Commission's draft determination supporting this direction in the long-term interests of consumers taking account of the realities of implementation and the reasonable interests of industry stakeholders. Thank you.

- MR PIERCE: Just before you go, Rosemary, I'm not going to necessarily put you on the spot but this rule change has thrown up, if you like, another example of a more general issue, which is the relationship between the energy specific consumer protection laws and the more general - -
- 15 MS SINCLAIR: Yes.

MR PIERCE: --- ACL and if now, but if not now, later through submissions - and this would be a general invitation - if there's a view about how people think that relationship should operate between ACL and the energy specific consumer protections and how the boundaries should be defined between the two, that may well be of some assistance in dealing with, if you like, a more general set of issues but also this one in particular.

MS SINCLAIR: And if I could just very quickly comment. It was that
opaque area that led to the development of the new energy technology
consumer code, which has been written in such a way that there are a range of
protections that the participants to that code adopt and they can be then applied
to different schedules of products and services. So that's been quite a serious
piece of work and we will certainly include comment on that in our submission
to the draft determination.

MR PIERCE: Thank you, Rosemary. Enel X, Claire Richards.

<CLAIRE RICHARDS, ENEL X

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MS RICHARDS: Good afternoon, everyone, and thanks to AEMC for the opportunity to provide a comment today. My name is Claire Richards and I'm the manager of industry engagement and regulatory affairs for Enel X. Enel X is a world leader in power flexibility. In the NEM we work with over 200 commercial and industrial energy users to help them intelligently adjust how and when they use electricity in a way that brings benefits to the grid and to the customers themselves. For the avoidance of doubt, Enel X is not a retailer.

I'd like to make three points on behalf of Enel X: firstly, this is a timely and important reform; second, the technical issues that are raised as a reason not to

pursue this reform are a resolved problem in the international markets; and, thirdly, the demand side is willing and able to participate. On the first point, the AEMC's draft decision is a big step in the right direction on a very important reform. We commend the AEMC for finding away to enable demand response to participate in the wholesale market while balancing the various concerns of market participants and energy consumers.

The draft rule aligns with global best practice. In Enel X's view, it will enhance consumer choice and promote competition in the NEM to the benefit of all electricity users. Some argue that we don't need a demand response mechanism. We disagree. As do the Finkel panel, AEMO, the ACCC, the AEMC, various energy ministers, energy consumers themselves and consumer representatives, and it's not just a theoretical argument. The events that occurred on 24 and 25 January in Victoria this year demonstrated that there is not enough active price responsive demand in the NEM.

Renewable energy is driving (indistinct) wholesale prices: low or negative in the middle of the day, and peaking in the evening. This spread provides a strong price signal for wholesale demand response. However, while efficient in theory, most energy users are unwilling or unable to manage the risk of direct spot price exposure. The AEMC's mechanism will provide a means for energy users to ask the wholesaler for demand response whilst retaining the more predictable and risk managed tariff offered by their retailer. Importantly, demand response will only be despatched if it offers in at a lower price than other sources of supply. Competition, particularly during intervals of supply scarcity drives lower wholesale prices, which benefit all consumers. In the context of an ageing thermal generation fleet and the rapid uptake of intermittent renewables, enabling participation by the demand side has never been more important.

On the second point: some argue that the draft rule is flawed because it involves baselining and a different settlement arrangement, but fortunately we're not the first market to be thinking about baselines. There is sufficient evidence to suggest that the baseline methodology is used in mature markets in the US, Europe and Asia are accurate and robust to gaming when coupled with appropriate compliance measures. The AEMC's proposed approach to enable the continuous improvement of baseline methodologies is also sensible and again aligns with global best practice.

On settlement: the proposed settlement model is a pragmatic solution to the concerns raised by retailers about the costs and potential customer confusion of billing on a baseline consumption. Again, the NEM is not the first market to use such a settlement model and there is much we can learn from those that have adopted a similar approach.

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To my third point: the current lack of wholesale demand response in the NEM is not due to a lack of customer interest or a lack of technology; it's down to a lack of opportunity. Two years ago the AEMC made a rule to allow parties, other than the customer's retailer, to offer FCAS, which is exactly what the demand response mechanism is seeking to do for the provision of wholesale demand response. As a result of that rule change, our customers now provide about 15 per cent of the NEM's contingency rate FCAS services and has successfully curtailed load in response to over 60 underfrequency events. Within one-quarter of entering, our customers contributed to a 57 per cent or \$33 million reduction in FCAS costs to the market.

The opportunity to (indistinct) FCAS markets using aggregated load is one that has been open to retailers for many years, even before the rule change was made, yet it was an opportunity never taken up. Enel X's participation in the FCAS market is testament to the ability of the demand side to make an effective and cost efficient contribution to a reliability and security in the NEM. It also demonstrates there is indeed an appetite amongst energy users of all sizes to offer demand response and to do so with or without retailers.

- To wrap up: I don't deny that this is a complex policy issue. It's easy to pick apart someone else's idea. What's not easy is coming up with a better one. Every alternative has pros and cons that need to be weighed up. So I challenge those who oppose this reform to come forward with a mechanism that is better able to meet the objectives of the rule change request than that set out in the draft rule. But let's not let the perfect be the enemy of the good. If we pursue perfection, we'll be back in this room in another five years' time having achieved nothing. In the context of high average wholesale prices, an increase in volatility, we can't afford to wait any longer.
- We all agree that wholesale demand response is a good thing, so let's start with what the AEMC's proposing, test it out through trials before the implementation date and improve the model as we go. Thanks.

MR PIERCE: Thank you, Claire. ERM, Ben Pryor. Over to you, Ben.

<BEN PRYOR, ERM POWER

MR PRYOR: Ben Pryor from ERM Power. We are a C&I retailer in the NEM. We have had a longstanding demand response portfolio within our business and we believe it will continue to be an important part of what we do as a retailer. I'd like to first take the opportunity to thank the Commissioners and the AEMC for the opportunity to speak with you today. We appreciate the work that the AEMC has done in preparing this draft determination which recognises the real and legitimate risks of some approaches and it has considered ways to minimise the costs and risks of the implementation,

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particularly with regards to timing.

There are a few key points I'd like to run through with you today. Principally they are around costs. Costs are as important as - just about all of our speakers have said today that costs for users are one of the big driving factors behind demand response, behind some of the concerns we see in the market. So one of the things I'd like to do today is just run through a few potential improvements that we believe could help reduce costs of implementation and reduce costs on retailers. To the extent that it does that, it will help reduce costs for consumers as a whole, particularly those who are unable or unwilling to participate in the demand response mechanism.

Firstly, one of things we've heard over the course of this process is that because we as a retailer have forecasts we should be used to baselines. This is true to some extent, but baselines do not represent forecasts. Forecasts are an aggregated consideration of what our load will be across all of our consumer book. Baselines take that out and apply it to a single user. This is not to say that the issues of baselines are unsolvable. I agree with what Claire has said, that there is international best practice we can use to look at that but as we impose the baseline settlement on retailers who will pay for that through the wholesale market, it's important to keep retailers whole as best as possible, and the way to do that is through the reimbursement rate which we acknowledge we think is a very clever idea by the AEMC, and also through keeping retailers aware of what the baseline will be.

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The draft determination at this stage suggests that demand response service providers will have access to the baseline methodologies for their demand response units and we believe that is appropriate. We also believe it is appropriate for retailers to have that information so that they can manage their hedging positions appropriately. This also extends to retailers understanding when a demand response unit has been despatched and when it is available to be despatched in the market. This is because hedging is a very dynamic process. It is not set and forget. We do not just buy caps and hedges and leave our book alone. We reassess this day in, day out, based on expectations of temperature, spot price outcomes, demand and other issues at the market. So we believe informing retailers when their customer is engaged in demand response through a demand response service provider are available to despatch and have been despatch will enable retailers to better manage the costs.

In terms of the reimbursement rate, we believe that we understand the need for simplicity, particularly if this has been determined by the AER, by another party, and we consider that - but essentially the 12-month rolling average calculated quarterly approach will fall short of retailers' actual hedging costs and the actual retail rate. We accept that it will never be perfect. Again, we agree with Claire, we can't let the perfect be the enemy of the good here. So

we would encourage the AEMC to consider some alternative approaches, such as perhaps looking at average peak prices. That's a well-understood metric in NEM. That is the 7 am to 10 pm on working week days. That we consider would be a better reflection of the costs that retailers face, particularly at times when demand response is likely to be despatched and when usage is likely to occur

We also believe that the AEMC should turn its attention to particular models and particular customers. Wholesale full price pass-through is one that has come to our mind. We believe that there is a risk at the moment that customers on wholesale full price pass-through who currently benefit from reducing demand when oil prices are high could stand to double-dip in the demand response market and both face lower costs when they reduce usage as well as a share of the benefits through the DRSP. Retailers currently do not hedge the load of full price pass-through customers because there is no volume or price risk to manage. We simply pass that on. It would be helpful to work with retailers to ensure that these kinds of double-dipping does not arise and we see that there are reasonably simple ways for this to occur.

- 20 Finally, we'd like to thank the AEMC again for how it has considered the timing of this issue. The NEM is currently undergoing a major transition and we're seeing some major rule changes. We've had the retailer reliability obligation start on 1 July and we will soon see whether a gap period will be declared in various states. We also have five-minute settlement coming into 25 place on 1 July 2021. This is one of the more fundamental changes we've seen in the NEM and the systems changes that we and AEMO and other participants have to do to manage this change are enormous. So we thank the AEMC for choosing not to align the beginning of the demand response mechanism with five-minute settlement, which we believed would increase risks. We also believe that the AEMC needs to consider how the demand response mechanism 30 will interact with other reform processes underway, particularly the coordination of generation and transmission investment review and the Energy Security Board's review of the NEM for post-2025. Thank you.
- MR PIERCE: Thank you, Ben. Can I just clarify when you were referring to the retailers being informed, were you referring to being informed of the baseline methodology or being informed of when they were actually demand responding, when they're actually being despatched?
- 40 MR PRYOR: Both.

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MR PIERCE: Both.

MR PRYOR: Having access to the baseline methodology would allow us and other retailers to hedge more appropriately and being aware of availability in

despatch would allow us to understand whether reductions in load are a natural response or a response as a result of a third party's action.

MR PIERCE: And one other one, given the nature of your business or your retail business in particular, what impact do you see the retailer liability obligation having on the prevalence of spot price pass-through contracts with some of these customers?

MR PRYOR: It's a very good question. We're engaged in those discussions with our customers now to keep them informed of the risks involved in this. I think one of the issues is that customers on full price pass-through with a retailer may have hedging arrangements that underlie that. They may not be exposed to the full price entirely themselves. They may have hedges - - -

15 MR PIERCE: I hope not.

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MR PRYOR: --- that they've engaged elsewhere. Some feel that that is the best way that they can manage their energy risks and it's not for us to say that that is the more or less appropriate way to do things. Whilst we do not believe there would be significant full price pass-through arrangements during a gap period, the fact that there is that notification means customers may continue to seek to use it outside of gap periods.

MR PIERCE: Okay. Thank you. Ready Energy, Tim Ryan.

<TIM RYAN, READY ENERGY

MR RYAN: Good afternoon, Commissioners. I'd like to thank you for the opportunity to share some of our views on demand response mechanisms, as much as the five minutes will allow. The perspective I want to address today is largely focused on the decision to exclude residential customers, and even small business, from DRM. The fatally flawed premise for justifying this is that baselines, in the consumer market, are unreliable as a means of assessing and rewarding demand response. There's little doubt that whole of (net) meter data, and the baselines drawn from it, are inadequate as a reliable, or fair means of assessing and rewarding demand response. But that is no justification for excluding consumers not only from the opportunity to ameliorate their bill but to be rewarded for it.

Turning to the first reference page of your handout, you'll see three quotes that I've drawn from the draft determination's supporting information graphics. The first assertion is simply wrong. In my honest opinion, the draft litters the runway with quite a few barriers. The second assertion is an unassailable truth: other than timing, the requirement for demand side management is now, not some point in the future. The third: it simply misses the fact that not only is

the technology available now, but it must be used now, and further developed, encouraged, even incentivised if we are to have a safe and secure and efficient energy system in the short-term future.

- Before I move on to examples of what could be done today with available technology, I want to take a brief moment to strongly support the establishment of demand response service providers and to publicly chastise retailers in general, and gentailors especially, for their disingenuous arguments and objections to demand response and/or demand management. This group is so hopelessly conflicted that there is an argument they should be excluded from demand response activities altogether, at best, or, at worst, forced to have demand response service activities as a separate "Chinese walled" business unit.
- 15 Let's be honest, a business in both generating and retailing and perhaps most retailers the objective is to sell more electricity at the highest margin. The chagrin of not only trying to sell less electricity but to pay for the privilege is an anathema to them. It's harsh, but I hope fair and reasonable. Any arguments by a financially responsible market participants against DR in general, and DRSPs in particular, should be ignored as self-serving and anticompetitive.
- To achieve positive outcomes for consumers the business model needs to change from one being consumption based, to logically being fee based and with the lowest possible consumption energy cost, perhaps even wholesale price pass-through. I'd like to return to your question a bit later of wholesale price pass-through and the RRO and if stand-alone DRSPs will be able to do that or at least assist with it.
- Turning to your handouts, these screenshots are from a product and service called Curb. It's not the only one of its type or functionality but is one of the best in class. Page 3 shows a site with limited monitoring, set up more for demonstration purposes than user functionality. It shows real time data updated every second for nonessential and essential loads. Not only is there real time data, but we have historical data for reference. Page 4 shows further example data, separate screenshots and historical nonessential and essential loads. The point I wish to make here is the strongest possible endorsement for Voluntary Load Shedding as put forward by the AEMC in the first consultation paper.
- Systems can be provided now that we give AEMO real time visibility and actionable despatch of emergency demand response as a product and service that supports the system security without any of the downsides of involuntary load shedding. This is not pie in the sky technology. It exists and should be used.

Variable renewable energy means we need - where desired by the consumer by active participation - to be able to control demand. This will not be just about limiting load but using energy when it is cheapest. True consumer

5 participation in understanding and managing their costs.

On page 5 the first example shows one month of one home. It really highlights both the difficulty of baselines and how easily they can be overcome. The second screenshot shows a three-hour window, which is yesterday, where three airconditioners were enabled and dramatically increased the load. On page 6 there are further screenshots that show the use of three airconditioners, realtime updates, segregated historical data, and the three radial dials at the bottom showing a rolling 60-second image of energy use.

On page 7 we see it showing data from the Sensibo Sky air conditioner controller, which this device is sitting on your table there. It has many features and, stand-alone, is just a fantastic tool for a consumer to manage their airconditioner from their Smart phone or their computer and include artificial intelligent features to manage energy cost of cooling or heating. They are readily available in many electronic stores and online sites and they are self-installed. There are a couple of those to see there.

The kicker: intelligent IT devices like these - and there are many coming onto the market every day - have the ability to be orchestrated. At the risk of misappropriating a word that has other meanings in our industry, these devices have a real utility factor. There's a simple worked example on page 8 that shows a 250-megawatt DRSP system using 50,000 Sensibo units could be installed for \$5 million - a network that would give customers personal Smart control over their airconditioners and be orchestrated to deliver network and system benefits.

If you look at pages 9 and 10 of your handout you'll see a couple of screenshots with simple orchestration and functionality that can be delivered en masse. Page 10 you will see that we can not only turn an airconditioner, or airconditioners, on or off, but change the temperature set points so it will allow the airconditioners to cycle on and off naturally while maintaining a comfort level, or to change the mode to just fan only, dramatically dropping load instantly while the consumer is likely to be unaware of the change. It's just like a normal compressor oscillation, and studies have proven this to be the case.

The crucial thing in this is that there are two parts to the model: control of these devices; and the realtime bio-feedback of the energy used by them. Many, if not all, studies have shown that access to this sort of information leads to lower consumption by the consumers.

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I now want to make what I thought would be an obvious point on a major deficiency in the draft determination. As it stands, the new rules seek to use commercial and industrial load, loads essential for business and productivity, as the primary, first and only DR mechanism to address peak load issues that are caused almost universally by uncontrolled residential load ramping - primarily airconditioning use. The new rule cannot, and in fact must not, exclude consumers if we are going to get to the heart of the issues of transformation of our energy system, extensive demand management and demand response must be part of that.

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I also want to briefly address gaming, an issue raised by retailers as a potential evil that justifies banning DR. Nothing could be further from the truth. In fact, some gaming should be actively encouraged and facilitated by the rules. I refer here to demand management in general and particularly to load shifting such as pre-cooling by airconditioners or refrigeration. In systems such as I suggested there was no room for gaming. There was just better data to deliver fair and reasonable outcomes.

I now wish to return to the written comments at the bottom of page 8. No
bigger mistake has been made in the transition of our energy system to include
renewable power than the decision to put rooftop solar behind the meter. I
brazenly attacked - and there's some detail on that that I won't go into here for
the time - I have brazenly attacked retailers for their conflicts of interest in
opposition to DRM and DRSPs, and I'm cognisant of a similar comment to be
made of my active support for the requirement for appropriate desegregated
realtime monitoring being an essential component of any DR participation and
DR - in fact in any DR installation. However, our energy system is changing
and if AEMO is not given the data it needs to securely manage it then we will
rue the day that AEMC missed the opportunity to incorporate it as part of the
DR rule changes. Thank you for your time today.

MR PIERCE: Just a brief question: given that the consumers you're referring to are connected at a distribution level, why is it necessary, do you think, for AEMO to have that visibility as distinct from the operators of the distribution network?

MR RYAN: In fact, I should have included both but I probably was typing too fast at the time to include DNSPs. This data should be available to all parts of the network. We've got significant issues. I really could have gone to a significant length of the other benefits that comes with this data of voltage control and information of DSPs, which should be part of it. I was trying to focus, for time benefit, solely on the objectives of the demand response. But these systems give us total detail and frequency. They would enable us to do FCAS response with actual known data at a site level. So give us details on voltages, VArs, et cetera. So all of that information is made available to - I

think it's one of the points that's missed in some of the DR discussions, is that if AEMO wants a dispatch demand response then it's actually got to know that it's actually going to be useful somewhere were it's gone on the network and where it can be delivered.

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If you've got access to this realtime data on the systems and can control it and you're able to provide that information and know what can be despatched or not - I do think that - it was AEMC who introduced the voluntary load shedding concept itself as part of that first consultation and I think it's probably one of the single biggest opportunities that is out there for us to have significant benefit. The wiring rules for properties should be incorporated so you have essential and nonessential supply simply separated and then remote controlled.

15 MR PIERCE: All right. Thank you. The Energy Efficiency Council, Rob.

< ROB MURRAY-LEACH, ENERGY EFFICIENCY COUNCIL

MR MURRAY-LEACH: Good afternoon. Thanks very much, Charles, 20 Michelle, John and Allison, for being here today. Before we start actually I just really wanted to thank the AEMC for their hard work and particularly the staff for the really above and beyond in terms of developing what I think is a really workable rule change proposal. In 2015 the AEMC was given a rule change to consider on demand response and considered that the benefits didn't 25 exceed the costs and determined not to change the rules and I'd really like to congratulate the AEMC this time around for going above and beyond and saying, "Well, there's a range of proposals in front of us, we're going to look through and develop a more refined model." Unlike some critics, I'd actually like to argue that the AEMC was very, very justified in taking the additional 30 time on this measure because it's far better that we do this once and we do it properly than come back again and again with half-assessments. So I really appreciate that.

Sort of in relation to that, for some reason the whole debate around this, if you've been reading the media, has got a very 80s rock band U2 theme to it, which I'm somewhat confused by but I thought the PIAC model was the real thing so I'd like to congratulate the AEMC on something that's even better than the real thing. I'd also like to thank SIMEC, ERM and most of the energy market participants for what I consider they're participating in this process in a real spirit of constructive debate. I think it's really great to see a really positive debate this time around on the demand response mechanism.

We're not attached to a particular model. We assessed four tests and said, "one, will it increase the level of economic demand response; secondly, does it move us towards a market that invests in the dispatch and development of an

efficient mix of supply side and demand side measures to meet consumers' need for capacity for energy services; three, does it increase competition for demand response services; and, four, are the costs reasonable?" So I will quickly go through these.

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Why do we need this rule change? Why do we need more demand response? When we use energy as part of a very sensible economic market - and it's becoming increasingly critical. In 2015, Oakley Greenwood assessed the costs and benefits of this measure based on a market that was very over-supplied with dispatchable capacity. Shortly thereafter that dispatchable capacity sort of somewhat nose-dived and the intermittent generation is going up very rapidly. So having time shifting demand is increasingly critical and that's a very well accepted through IEA and the other partners we work with internationally.

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Jamie from ENGIE Energy was correct in stating that we don't have a firm idea of how much demand response is going on right now. However, what I would say is every single indicator that we have shows that the level of demand response in the NEM right now is well below the range of international markets in demand response. I think some of that makes a lot of sense. We had low cost affordable capacity at the time. The costs and benefits of demand response were very, very different then to how they are now. In fact, we know that there's far more capacity out there. So in the industrial space alone (indistinct) is assessed at least two gigawatts of industrial demand response,

which is a rough - it's about 6 per cent of peak capacity in the NEM.

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There's also reasons that we know that we haven't tapped that capacity: (1) the benefits were relatively low compared to the cost before, but also reasons had been identified from the Parer Review, the ACCC, the AEMC, and other independent reviews have all correctly identified the barriers to demand response that need to be addressed. That is a point I would disagree with SIMEC, which they said that there are barriers to DRM which are insurmountable, so they're low profile. I would totally agree with that. I don't think our job is to address all the barriers to demand response; it's to address those reasonable ones that can cost effectively be addressed which are caused by the common rules or structure of the energy market.

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So, secondly, we've established that this can improve the level of demand and response. Does it put supply and demand on an equal footing? Yes, and I think it's through using the wholesale market which means you cannot over-incentivise the demand response, particularly with the truing up mechanism you propose for the retailers which I misunderstood at first, I will be quite honest with that. Actually, that's why I disagree with SIMEC but I actually understand where they came from. When I first read the AEMC's proposal, I interpreted it that the truing up mechanism was the rewarding mechanism for the proposal and had myself quickly corrected by some

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colleagues. So I think that that's actually addressed that very, very nicely and I think that will hopefully mean that you have a strong signal through the wholesale price mechanism but there is absolutely no way through this mechanism you could over-incentivise demand response, unless you get some of the details and (indistinct) which I'll come back to in the fourth point.

Third, does it increase competition, the demand response provision? Yes, and in fact many of the complaints that have been made about this proposal really reflect the fact that some retailers and peak generators will have to face increased competition and statements the rule change would stymie the development of retailers offering demand response to me seems to be, at best, concerns about competition, and we want more competition in this space. However, I also think this proposal will benefit forward-thinking retailers.

- SIMEC earlier mentioned that he had already become a demand side service provider. That's not strictly correct. SIMEC could already provide demand response to its own customers but not customers of other retailers, and that's very important because we know that several large retailers in the past and I know because we've spoken to them about this used to provide demand side services but because of the fact that those contracts normally need to be about two to five years but a retail contract is often much shorter than that, it didn't line up properly and so they exited the market because they kept on basically losing customers where they'd invested quite heavily in demand response.
- So separating those two out I think will really benefit retailers who are in a very, very good position to actually offer this. I think most of the retailers in this room are already actually very well suited to provide demand respond services. As Craig mentioned, some retailers won't want to provide it, and I think that's absolutely legitimate, and then other providers can come in in that space. So finally the question for me is, are the costs reasonable. The administration costs exist but I think they're very modest, and particularly with the changes that are being proposed by the Commission. I did like the proposal presented by PIAC but this does dramatically lower the cost for retailers.
- Secondly, there's some concerns about hedging costs because apparently we can't control when consumers undertake demand response, as was stated earlier. But I think that's the whole point of hedging, is you can't control funds. Certainly, that's what hedging is. It's about balancing risk. So I think the important point there is about making sure the retailers have access to the information so that they can appropriately manage that, and that's what we see most of the issues that need to be worked through with this proposal are issues of detail. The high level framework seems very robust to me.
- We do need to get the details right but those are all very manageable. So providing the right information to retailers for hedging, very doable. Getting

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baselines correct, very doable. Making sure that we're truing up retailers correctly, it's very doable. But all of those details do need to be worked through quite carefully and we're very keen to work through the AEMC as those are worked through. And congratulations again. Thank you.

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MR PIERCE: Thank you, Rob.

MR CAMROUX: Sorry, John.

10 MR PIERCE: Sorry? Rob.

MR CAMROUX: Sorry (indistinct) by Rob - - -

MR PIERCE: Hang on.

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MR MURRAY-LEACH: Sorry.

MR PIERCE: Hang on. Go on then.

20 MR CAMROUX: I haven't got a question, sorry.

MR KELLY: Sorry, for the sake of the transcript, could you speak into the microphone.

MR CAMROUX: Sorry, am I allowed to - sorry, I don't know what the process is. Rob, thanks for quoting us. With regards to us, saying we need to be a DRSP, he was just stating that if we wanted to participate in the wholesale space we would need to register. I take your point that if we wanted to participate with some other retailer's customers, we would need to be a DRSP but the point fundamentally we were making is we're already participating. Why would we register again, incur those licensing registration fees and costs to do something that we already are doing. So that's the point.

MR MURRAY-LEACH: Can I respond to that?

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MR PIERCE: Very, very briefly. We do have - as people should be aware, as our normal process is lots of workshops and opportunities for people to engage in direct discussion. In fact, we encourage that in our workshops. We learn more from hearing people talk amongst themselves and indeed I hope people do learn from others by talking amongst themselves at those workshops but they're set up to do that. Today really hasn't been set up to do so because it's not the nature of hearing which is really here because you asked for it, Simon. So if there's a very brief response, fine, but I'd suggest that you might take it up at one of the workshops we're going to have as well if you want to go into it in more detail.

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MR MURRAY-LEACH: No, I agree with that. I think that this proposal will actually enable SIMEC and other parties - retailers - to have longer, deeper relationships with the customers on the demand side. Having those separated out means that if they change provider or if you want to work with another retailer's customer, you can do so. So it expands the potential of SIMEC to work in that space. As I said, sorry, and if it wasn't clear, I genuinely do think that SIMEC engage in this with a great degree of constructive thought and I really appreciate that.

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MR PIERCE: Okay. Thank you. Look, thanks, everyone, for coming along today. We certainly appreciate you taking the time to engage in our processes generally and indeed today. The experience that each of you bring to this hearing and indeed your input into these rule change processes generally is quite invaluable and helps the Commission make better informed decisions. We would welcome, obviously, your written submissions on the draft determination and the draft rule which, as we've said previously, needs to be lodged by close of business Thursday, 12 September. The statements made today at this hearing and any subsequent submissions made in response will be taken into account and considered by the Commission in making its final rule determination.

I note again that the holding of this hearing will not delay or otherwise the AEMC time frames for this project and there has never been a basis for suggesting that it would. The final determination is scheduled to be published on Thursday, 14 November and this continues to be the case. Once again, thank you, everyone, for coming along and I'll formally close the hearing. Thank you very much.

30 MATTER ADJOURNED AT 1.38 PM ACCORDINGLY

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