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ADVOCACY CENTRE

## **Submission to Wholesale Demand Response Mechanism Rule Change Consultation Paper**

**11 January 2019**

## About the Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in Sydney.

Established in 1982, PIAC tackles barriers to justice and fairness experienced by people who are vulnerable or facing disadvantage. We ensure basic rights are enjoyed across the community through legal assistance and strategic litigation, public policy development, communication and training.

## Energy and Water Consumers' Advocacy Program

The Energy and Water Consumers' Advocacy Program (EWCAP) represents the interests of low-income and other residential consumers of electricity, gas and water in New South Wales. The program develops policy and advocates in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives input from a community-based reference group whose members include:

- NSW Council of Social Service;
- Combined Pensioners and Superannuants Association of NSW;
- Ethnic Communities Council NSW;
- Salvation Army;
- Physical Disability Council NSW;
- Anglicare;
- Good Shepherd Microfinance;
- Financial Rights Legal Centre;
- Affiliated Residential Park Residents Association NSW;
- Tenants Union;
- The Sydney Alliance; and
- Mission Australia.

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## **Introduction**

PIAC welcomes the opportunity to respond to the consultation paper regarding the three wholesale demand response mechanism (WDR mechanism, WDRM or DRM) rule changes.

As a joint proposer, we fully support the rule proposed by PIAC, the Total Environment Centre (TEC) and the Australia Institute (TAI), and provide herein further detail for a number of matters identified in that proposal as well as responses to questions raised by the AEMC.

PIAC sees the South Australian Government's proposal (SAG) as complementary to the PIAC, TEC and TAI proposal. PIAC supports the intention of the SAG's proposed transitional arrangement, to enable the timely introduction of the WDR mechanism with minimised impact on existing participants, but thinks there are more efficacious ways to achieve this, as detailed below.

PIAC does not support the rule proposed by the Australian Energy Council (AEC). While the AEC now accepts the need for more wholesale DR—a major concession by generators and retailers—the AEC proposal offers only a tokenistic reform while retaining veto power for retailers over customer involvement in the DR market.

In PIAC’s view, the NEM can only be considered truly efficient and effective, and therefore to be promoting the long-term interest of consumers, if it has optimal levels of demand response in all its markets and networks, as illustrated below.

Stage in supply chain	Wholesale and system operation	Transmission	Distribution	Retail	Customer (behind the meter)
Role of DR	<ul style="list-style-type: none"> <li>Alternative to expensive generation to meet peak demand</li> <li>Provide system security</li> <li>Provide ancillary services</li> </ul>	<ul style="list-style-type: none"> <li>Avoid or defer capital investment</li> <li>Cost effective alternative to expensive interconnection investment</li> </ul>	<ul style="list-style-type: none"> <li>Avoid or defer capital investment</li> <li>Provide power quality support</li> </ul>	<ul style="list-style-type: none"> <li>Manage wholesale market exposure</li> <li>Manage retail market exposure</li> </ul>	<ul style="list-style-type: none"> <li>Reduce consumers’ electricity costs</li> <li>Provide backup supply during outage</li> </ul>
Necessary reforms or outcomes	<ul style="list-style-type: none"> <li>Demand Response Mechanism (that is independent of retailers)</li> <li>5 minute settlement</li> </ul>	<ul style="list-style-type: none"> <li>Offering DR to consumers</li> <li>Provide products to allow consumers to self-select their cost-reliability level</li> <li>Ringfencing arrangements and network incentives to support DR</li> </ul>	<ul style="list-style-type: none"> <li>Offering DR to consumers</li> <li>Network tariffs for DR</li> <li>Provide products to allow consumers to self-select their cost-reliability level</li> <li>Ringfencing arrangements and network incentives to support DR</li> </ul>	<ul style="list-style-type: none"> <li>Pass on network tariffs and products for DR</li> <li>Provide products to allow consumers to self-select their cost-reliability level</li> <li>Offer retail DR products for wholesale price arbitrage</li> </ul>	<ul style="list-style-type: none"> <li>Consumers are able to self-select cost-reliability trade-off</li> <li>Allow aggregation of individual consumers to provide DR portfolio</li> </ul>
Essential	Coordination of services and products to overcome split-incentives and barriers to efficient use of DR				

**Figure 1 - The role of demand response in each part of the energy market and system**

Demand response (DR) for the purpose of avoiding or deferring network upgrades has been the focus of reforms in recent years, yet there remains a dearth of demand-side participation in energy markets. Despite recommendations in the Parer review in 2002, and by the AEMC ten (and again, 16) years later, there is still no mechanism for offering demand response in the wholesale electricity market.

Due to the lack of wholesale DR undertaken by retailers and generators, and the absence of a means for consumers to undertake wholesale DR without a retailer, WDR remains greatly underutilised in the NEM. The potential for demand response to mitigate wholesale prices, which are driving consumer retail bills to the highest level ever, is still not being realised.

In the NEM’s ancillary service markets, however, where demand response aggregators are able to provide services independently of retailers, the use of DR is growing and has been shown to bring down the costs of ancillary services dramatically, particularly in more concentrated markets such as South Australia.

A WDRM will provide a more effective and efficient energy wholesale market, by displacing more costly generation capacity and dispatch with more cost-effective voluntary load reductions. This will in turn place downward pressure on wholesale prices and reduce concentration, while improving options for cost effectively maintaining system security and reliability.

Generators and retailers are threatened by competition from a WDRM, and have lobbied strongly against one being implemented. Though much credible analysis has shown a WDRM to be in the long-term interest of consumers, gentailers themselves have consistently failed to tap into the material amount of demand response that is available to them, and they have so far been successful in their lobbying.

This has resulted in ongoing detriment to consumers who continue to incur the cost of inefficient retail prices as DR remains underutilised. This is an unacceptable outcome, and a WDRM is required to ensure that it does not remain the case.

As PIAC stated recently its submission to the AEMC's Reliability Frameworks Review:

...allowing demand reduction to bid into the wholesale market, independently of energy purchasing arrangements, is increasingly essential if that market is to deliver efficiency outcomes that are in the long-term interest of all consumers.

Although retailers are able to engage in demand response if they choose to do so, the NEM remains a generation-only wholesale market. When compared to energy markets with effective mechanisms for demand response<sup>1</sup>, the amount of DR in the NEM is trivial.

Hence, the introduction of a Demand Response Mechanism (DRM) was recommended by the AEMC in the 2012 Power of Choice review.<sup>2</sup> Subsequently AEMO developed a rule change proposal to this end. In response to pressure from incumbent gentailers<sup>3</sup> - who, as noted by the AEMC, face conflicting incentives with respect to DR and generation<sup>4</sup> - AEMO did not lodge a rule change proposal for the DRM with the AEMC, instead deferring to SCER.

SCER opted to delay the reform by a year with (another) cost-benefit analysis. In 2014 when Ministers met again to consider a DRM, gentailers argued the reform would no longer be of benefit, due to declining demand and oversupply of generation capacity; a position proven short sighted by recent history.

In 2015, this resulted in a modified rule change proposal by COAGEC, for a DRM that was, by design, ineffective in that it gave retailers the right to disallow consumers from participating.<sup>5</sup>

In considering that rule change from COAG Energy Council, the AEMC had heard estimates from retailers of more than 2,000MW of DR already undertaken in the market, leading it to conclude in

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<sup>1</sup> For example, over 10% of the WA energy market's capacity is sourced from demand response.

<sup>2</sup> And at other times in the previous decade since, and including, the Parer review in 2002.

<sup>3</sup> In the past, retailers have claimed that DRM implementation costs exceed \$100 million. These claims remain entirely unsubstantiated, have been questioned by independent experts and have not been subject to any meaningful due diligence, they should not be treated seriously by the AEMC.

<sup>4</sup> AEMC, [Reliability Frameworks Review Issues Paper](#), 22 August 2017, 54.

<sup>5</sup> PIAC, [But what's the USE?](#), September 2017, 5-6.

its Determination that "retailers themselves offer, or are willing to offer, a range of products and services intended to capture a customer's demand response".

In spite of the assurances of incumbent businesses, there remains no evidence of such a market:

- The involuntary load curtailment that blacked out some South Australian households in February 2017, caused by multiple generator failures on the day, could have been avoided if just 100MW (3% of the South Australian load) was voluntarily curtailed or shifted under a WDR Mechanism.<sup>6</sup>
- The AER, in its 2018 wholesale electricity market performance report, observed that WDR by retailers has actually decreased in the last year: "For summer 2017–18, AEMO estimated there was only 207 MW of expected demand response to different wholesale price levels."
- In early 2018, PIAC conducted a research project that involved 'mystery shopper' calls to retailers active in NSW, asking whether they offered demand response programs for residential consumers. Of the 23 retailers contacted, only one niche retailer, currently serving less than 0.01% of the NSW household electricity customer base, offered demand response.<sup>7</sup>

This indicates that

- even if consumers are aware of what to ask for, it is very unlikely that they will be able to find a retailer that is willing to offer WDR, and
- The vast majority - at least 99.99% - of NSW households would be required to change retailer to do demand response.<sup>8</sup>

While some retailers have offered DR to consumers as part of RERT, these have been

- trials, limited in duration and number of participants, rather than ongoing product offerings,
- applied for emergency purposes only during summer, not the day-to-day operation of the NEM, and
- significantly subsidised by ARENA.

In considering COAG Energy Council's previous DRM proposal, in PIAC's view the AEMC was misled by retailers to believe they were fostering a vibrant, emerging demand side market that required no intervention, along with an enduring surplus of reliable generation capacity rendering demand response unnecessary. AEMO, in deferring the earlier proposal to SCER, and then COAG Energy Council, in amending that proposal to give retailers the right to veto their customers from participating, were similarly misled.

To realise an optimal level of WDR, PIAC proposes an introduction of a mechanism that

- allows any consumers to undertake WDR with a DR provider of their choosing;
- levels the playing field between generation and demand response;

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<sup>6</sup> By comparison, more than 10% of Western Australia's wholesale market capacity comes from demand response, as it is allowed to participate in the WA wholesale market

<sup>7</sup> It is unclear whether this retailer was offering wholesale demand response to customers who don't have swimming pools

<sup>8</sup> And may only be eligible to do so if they have a swimming pool



- improves the visibility of existing and future demand response;
- is robust yet adaptable and continually improved as the energy market goes through complex transitions;
- Allows DR providers and participating consumers to determine how to best manage any risks associated with their participation; and
- Improves the efficiency of emergency reliability arrangements.

## Responses to Consultation Questions

### Question 1: Assessment framework

#### **Do stakeholders agree with the proposed assessment framework? Alternatively, are there additional principles that we should be taking into account?**

PIAC supports the proposed assessment framework. In all cases, the AEMC's over-riding consideration should be the long-term interests of consumers as articulated in the NEO and NERO.

In PIAC's view, the AEMC's description of the nature of how demand response occurs<sup>9</sup> is excellent. As well as the examples given therein – limiting widget production or home heating – it is important to note that there are many opportunities for DR that have little or no impact on the productivity of a business, or quality of life of a householder, such as

- shifting the timing of thermal loads such as cold storage and hot water systems;
- shifting the timing of pumping load such as irrigation pumps, water utilities and pool pumps; and
- operation of batteries and embedded generation.

In a mature market for DR, many of these will occur in an automated fashion. Further, participation in DR is voluntary, and for residential consumers should always have an override or opt-out option for a given demand response event that may affect the quality of life of that consumer.

To realise an optimal level of WDR, PIAC proposes an introduction of a mechanism that:

- allows any consumers to undertake WDR with a DR provider - be they a retailer or third party - of their choosing;
- levels the playing field between generation and demand response, with DR providers participating in the NEM independently of generators and retailers;
- improves the visibility of existing and future demand response, by, as far as is practical, requiring retailers to offer existing and future demand response into the market;
- is robust yet adaptable and continually improved as the energy market goes through complex transitions. As far as is practicable, this should be achieved by
  - principle-based direction in the National Electricity Rules and National Electricity Retail Rules; and

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<sup>9</sup> p18 of Consultation paper

- more prescriptive guidance in the practices, procedures and guidelines developed by AEMO and the AER;
- Allows Demand Response provider and participating consumers to determine how to best manage any risks associated with their participation, particularly with respect to the trade-off between firmness of response and payments to consumers for participation; and
- Improves the efficiency of emergency reliability arrangements, by incentivising DR to participate in the wholesale market (rather than RERT) and so reducing the need for more expensive emergency interventions.

PIAC recommends that the AEMC has regard to these outcomes in its assessment of the most appropriate Wholesale Demand Response Mechanism for the NEM. PIAC also urges the AEMC to exercise rigour in its assessment of the costs of a WDRM, and balance any assessment of costs with the benefits that accrue to consumers, both in terms of direct benefits to participating consumers, and the market-wide benefits of lower energy wholesale prices and potential reduction.

## **Question 2: Nature of the issue raised**

### **(a) Is it difficult for consumers to participate in wholesale demand response? If so, which consumers face the greatest amount of difficulty? What is the cause of this difficulty?**

Residential consumers have been given little or no opportunity to participate in WDR. Currently, retailers are responsible for facilitating consumer participation in WDR. In PIAC's experience, they have not done so.

In early 2018, PIAC conducted a research project that involved 'mystery shopper' calls to retailers active in NSW, asking whether they offered demand response programs for residential consumers. Of the 23 retailers contacted, only one, niche retailer, currently serving less than 0.01% of the NSW household electricity customer base, offered demand response.

This indicates that

- even if consumers are aware of what to ask for, it is very unlikely that they will be able to find a retailer that is willing to offer WDR, and
- The vast majority - at least 99.99% - of NSW households would be required to change retailer to do demand response.

While some retailers have offered DR to consumers as part of RERT, these have been

- trials, limited in duration and number of participants, rather than ongoing product offerings;
- applied for emergency purposes, not the day-to-day operation of the NEM; and
- significantly subsidised by ARENA.

The primary barrier to residential consumers participating in wholesale demand response has been the lack of options offered by retailers and the inability to contract with alternate providers – this affects all consumer groups and types equally. However, were this to be addressed, PIAC

notes some types of consumers may continue to face difficulty participating/accessing (as seen currently with accessing other types of demand response options):

- renters, who face barriers to installing fixed appliances and making home wiring modifications;
- financially disadvantaged consumers, who are unable to afford technology such as distributed energy resources (DER);
- consumers whose distribution business does not offer accessible DR programs and incentives; and
- those who are less numerically or financially literate, or who have a language barrier.

While they do not face many of the same challenges as households, even large energy users that are financially literate and engaged with the energy retail market face barriers to accessing appealingly priced WDR services from energy retailers under current arrangements. In PIAC's experience these barriers arise from the unwillingness of retailers to offer DER services such as WDR, and the inability for energy users to contract with other providers.

The case that often plays out where a larger energy user is interested in DER, such as WDR, is the following:

- The energy retail contract has been negotiated, often after a tender process or through a broker, with fixed the prices for energy and other terms, for a number of years;
- At the time this contract is negotiated, the energy user is focussed primarily on terms that relate specifically to the price for energy and the duration of the contract;
- Awareness of options for DER, such as installing solar or undertaking, demand response originates in a different part of the business and at a later time than the negotiation of retail energy contracts;
- Review of the contract conditions shows there is no provision for the retailer to make payments for DER, such as a feed-in rate for exported energy or payment for wholesale demand response;
- The business approaches the retailer and finds them to be unwilling to renegotiate the contract to include a reasonable payment for exported energy or wholesale demand response;
- The business finds there are no alternate ways to realise the value of their DER. As a result they:
  - choose not to install solar (or install a sub-optimally smaller solar system to minimise exported energy for which they are not paid), or
  - are unable to participate in wholesale demand response.
- This situation is exacerbated when energy retail is under multi-site contracts (such as councils, schools and many large businesses).

PIAC supports points made in submissions by Major Energy Users, Energy Efficiency Council and Enel X, regarding difficulties for businesses and other energy users in accessing wholesale DR.

PIAC has observed that there has been a recent burst of ad-hoc DR activity from a small number of retailers. Rather than a sign of sufficient progress in retailer-offered WDR services this

appears, for the most part, to be an attempt to head off this reform process. The AER in its recent wholesale electricity market performance report, observed that WDR by retailers has actually decreased in the last year: “For summer 2017–18, AEMO estimated there was only 207 MW of expected demand response to different wholesale price levels.”

**(b) What demand response providers and products are currently available in the market?**

Please refer to 2(a) above. While there has been some development of energy network led DR, the lack of WDR products from retailers and inability for other parties to effectively offer WDR, in a way that makes commercial sense for providers and participants, has led to there being no publicly advertised offers to undertake WDR.

**(c) Is there effective competition for demand response as a service to be used by retailers? If not, are consumers able to access the benefits of wholesale demand response directly? Is competition for wholesale demand response as a service increasing?**

No, on all counts.

It is inherently uncompetitive that consumers are only able to undertake WDR with their own retailer. Also, as noted in 2(a) and (b) above, retailers do not currently provide material demand response services to small consumers and are only beginning to offer a token amount in response to this rule change process. There is negligible, if any, competition in this market.

Contrary to the idea that competition for WDR may be increasing:

- the AER, in its recent wholesale electricity market performance report, observed that WDR by retailers has actually decreased in the last year: “For summer 2017–18, AEMO estimated there was only 207 MW of expected demand response to different wholesale price levels.”
- As noted in 2(a), in early 2018, PIAC conducted a research project that involved ‘mystery shopper’ calls to retailers active in NSW, asking whether the offered demand response programs for residential consumers. Of the 23 retailers contacted, only one, niche retailer, currently serving less than 0.01% of the NSW household electricity customer base, offered demand response.
- PIAC has observed that, since then, there has been a recent burst of ad-hoc DR activity from a small number of retailers. Rather than a sign of sufficient progress in retailer-offered WDR services, this appears to be an attempt to head off this reform process.

**Question 3: Wholesale demand response currently in the NEM**

**(a) Do stakeholders have views on the existing levels of wholesale demand response in the NEM? Please provide evidence or data to substantiate these views where possible.**

Currently the scale and behaviour of DR is largely unknown to the broader market, as

- most of it occurs in off-market arrangements between retailers and customers;
- the remainder is exercised by or for market customers directly; and
- little, if any, is notified to the market operator.

If an effective WDRM were introduced, existing DR customers are likely to participate in it, improving the transparency of existing DR.

As noted in response to Question 2, most consumers do not currently have the opportunity to engage in WDR. This has severely limited the existing levels of WDR in the NEM.

PIAC, TEC and TAI commented on the reasons why the current framework for WDR does not result in optimal levels of WDR in our rule change proposal:

In the absence of a mechanism that allows third parties to offer DR directly into the wholesale market today, the roles and benefits of DR noted above are not being fully realised. As the AEMC has noted, there is a theoretical 'efficient market incentive' for retailers to offer and engage in WDR. However, it has often been observed that current arrangements have led to a sub-optimal level of DR in the NEM compared with other energy markets. This may be due to a raft of factors including the issue that this rule change request seeks to address (by allowing third parties to participate in the wholesale market) but also practical commercial issues and cultural factors (i.e., a lack of knowledge about or bias against demand side behaviours and technologies). Above all, at present DR providers can only benefit by offering their services to a retailer to manage the load of the customers of that retailer. There are many barriers to developing these partnerships.<sup>10</sup>

Further, the AER, in its recent wholesale electricity market performance report, observed that WDR by retailers has actually decreased in the last year:

For summer 2017–18, AEMO estimated there was only 207 MW of expected demand response to different wholesale price levels.

**(b) Can retailers indicate to the Commission what they are currently doing to facilitate wholesale demand response?**

They can certainly try.

**Question 4: Approach for facilitating transparent, price responsive demand**

**Do stakeholders consider there are other regulatory solutions:**

**(a) to providing the demand side with greater access to wholesale prices**

There are options for spot price exposure for many consumers in the NEM, including households. This improvement to consumers choice is a welcome improvement to the energy market, but should not be mistaken for the development of an effective market for wholesale demand response. Most consumers do not want to face the risk and complexity of exposure to spot price volatility for 8,760 hours of every year for the purpose of reducing or shifting load during what would usually be less than 10 hours of demand response.

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<sup>10</sup> PIAC, TEC, TAI, [Wholesale Demand Response Energy Market Mechanism: Rule Change Request](#), 31 August, 2018, 7.

**(b) to increase the transparency of demand side response to these prices?**

*Further comments to come in supplementary submission.*

### **Question 5: Efficient consumption of electricity**

**(a) Do stakeholders agree with our characterisation of how efficient wholesale demand response would improve outcomes in the wholesale market?**

*Further comments to come in supplementary submission.*

**(b) What are stakeholders' views on how facilitating wholesale demand response could affect outcomes in the wholesale energy market?**

*Further comments to come in supplementary submission.*

### **Question 6: Competition for wholesale demand response services**

**Are consumers able to access competitive offers from retailer or third parties to assist consumers to undertake wholesale demand response? Is the level of competition greater for larger consumers?**

Please refer to 2(a), 2(b) and 3 (a) above. As noted, consumers are generally not currently able to access competitive offers from retailers to undertake WDR. It is also very difficult for consumers to access competitive WDR offers from third parties.

Under the currently regulatory framework, third parties are unable to make WDR offers directly to consumers. The AEMC acknowledged this is problem in its *Reliability Frameworks Review*, stating that:

...there are challenges for third parties looking to provide wholesale demand response. Third parties can only do so currently by either being a retailer themselves, or having a commercial relationship with a retailer.<sup>11</sup>

These requirements have prevented third parties from approaching consumers and mean consumers are unable to access competitive WDR offers from third parties.

The adoption of a WDRM will provide third parties with effective opportunities to offer DR for participation in the wholesale market, which is expected to drive competition between DRSPs to provide this service and, potentially, spur retailers to offer WDR products to their customers.

### **Question 7: Demand response participating as a scheduled load**

**(a) Has the Commission appropriately characterised the benefits of increasing transparency relating to wholesale demand response?**

*Further comments to come in supplementary submission.*

**(b) Do stakeholders consider that if demand response were to participate in the wholesale market, it should do so as a scheduled load (rather than scheduled "negawatts")? Would the pros and cons of participating as a scheduled load**

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<sup>11</sup> AEMC, [Reliability Frameworks Review Final Report](#), 2018, 53.

**differ for different types of demand response providers, e.g. those that have demand response controls on all or only part of their load?**

*Further comments to come in supplementary submission.*

**(c) Do stakeholders consider the obligations placed on scheduled load remain appropriate in the context of demand response? If not, how might they be changed to better allow loads to participate in central dispatch?**

*Further comments to come in supplementary submission.*

**(d) Which information provision processes should a demand response provider participate in, i.e. pre-dispatch, ST-PASA, MT-PASA?**

*Further comments to come in supplementary submission.*

**(e) How should compliance with dispatch targets and the causer pays procedure apply to demand response providers?**

*Further comments to come in supplementary submission.*

## **Question 8: Reducing barriers to a range of demand response**

**To what extent will these mechanisms facilitate more demand side participation throughout the NEM?**

PIAC agrees with the AEMC that reducing the barriers to WDR is likely to increase the amount of DR capacity available in other parts of the NEM. We agree that the more revenue streams are available to DRSPs, the more likely these businesses are to invest in developing DR resources with consumers to support various parts of the NEM, including:

- The wholesale market;
- Networks; and
- Ancillary services.

The PIAC/TEC/TAI-proposed mechanism and the SAG mechanism are likely to support the growth of DR capacity throughout the system because they will be effective at removing barriers to WDR. They achieve this by:

- Removing the existing distortion to the market created by the absence of a level playing field between demand response and generation businesses.
- Allowing the availability of DR throughout the supply chain, and among all consumers.
- Supporting genuine consumer choice and confidence in the market: consumers can choose their preferred retailer for energy retail services, and their preferred DR provider for WDR services, without compromising one for the other.
- Allowing DR to be offered by the demand response aggregators who are best equipped to provide it, so allowing retailers to focus on delivering energy retail services and not compelling them to offer DR services that are not part of their business model.

While the AEC proposal lacks much of the detail required to fully understand how it would work in practice, it clearly fails to remove the four barriers addressed by the PIAC, TEC, and TAI and SAG proposals (noted above):



- The AEC proposal seeks to preserve the existing distortion to the market created by the absence of a level playing field between demand response and generation businesses.
- The AEC proposal does not promote the availability of DR throughout the supply chain and among all consumers, as participation would be still be limited to consumers that are with participating retailers. This also presents geographic limitations to using DR for network services.
- The AEC proposal does not support real consumer choice and confidence. Under the proposal, consumers who want to do DR will be required to accept the DR terms and any energy contract terms of their current retailer, and will be unable to move their combined DR and energy contract to any retailer that does not have the same business model.
- The AEC proposal does not allow WDR to always be offered by the demand response service providers (DRSPs) who are best equipped to provide it where the retailer does not support that service provider. Further, any modifications to address this through compelling retailers to allow access between any customer and any DRSP will have the adverse impact of limiting retailers from focussing on delivering energy retail services.

For these reasons, the proposed AEC mechanism is unlikely to facilitate any material increases in demand side participation, and is clearly incapable of producing the associated NEM-wide benefits of optimal penetration of DR.

## **Question 9: Costs of implementing mechanisms**

**(a) What is the extent of the upfront costs that would be imposed on participants to introduce the proposals outlined in the rule change requests? Please provide evidence or data to substantiate these views where possible.**

PIAC understands from discussions with retailers and AEMO that the incremental cost of systems changes required by retailers will be minor if these changes can be combined with other systems changes, such those required for implementing the five-minute settlement and global settlement reforms, both of which involve significant and costly changes to market operations.

Nevertheless, there are several measures to reduce the upfront costs of introducing the WDR mechanism (Please refer to question 9 (b) and Question 10.) These measures can reduce any implementation cost to retailers, and potentially to AEMO, both of which will be required to undergo some system changes to implement the reform.

Implementation cost figures in excess of \$100M for a DRM have been bandied around for some time. These figures rely entirely on proof by assertion, and remain unsubstantiated. It is important to understand their origin in AEMO's previous DRM rule change process following the Power of Choice review.

In a survey conducted by AEMO in 2013, retailers were asked to advise on elements of the DRM reform - a reform which they all opposed - in a short survey. A multiple choice question asked the retailer to estimate the cost, to their business, of automated changes to billing and IT systems required to accommodate customers participating in DR with an independent third party. The following ranges were available:



- Less than \$100k
- \$100k to \$500k
- \$500k to \$1M
- \$1M to \$5M
- More than \$5M

In responding to the survey, retailers chose option “E. More than \$5M”. They were at no time, however, required by AEMO to substantiate this estimate, or to indicate what measures would limit the implementation cost for them.

In spite of various stakeholders calling into question the lack of rigour or independence in those figures, and industry experts challenging their veracity, these values informed industry’s estimate that the cost would exceed \$100M. These values were subsequently

- used by Seed Advisory in a report commissioned by the Energy Retailers Association Australia’s of Australia as collateral with which to lobby against the reform;
- cited in the CBA of the DRM undertaken by Oakley Greenwood for SCER/COAG; and
- repeated ad-nauseum by energy retailers and generators.

We strongly recommend that the AEMC ignores cost estimates that are evidenced by citation alone. Similarly, any further unsubstantiated estimates provided by energy retailers should be disregarded, and any evidence provided by retailers to substantiate their claims must be transparent, reasonable and defensible.

Further, it is standard practice for retailers and generators to undertake manual adjustments to settlement or billing data when the cost to do so is much lower than the cost of changing an automated system. This allows retailers to manage their costs by deferring the modification of their systems at a later date while doing other routine upgrades (such as those that will be required for five minute settlement and global settlement), in the context of which the incremental cost of upgrades for a WDRM will be minor.

In any case, costs (real or purported) alone could not slow the introduction of the WDRM, without full regard to the potential benefits of DR to both participating consumers and to the market as a whole.

**(b) Will demand response providers have sufficient information regarding expected revenue to make commercial decisions regarding the cost/benefit trade-off of incurring upfront costs in order to participate in the mechanism?**

*Further comments to come in supplementary submission.*

**Question 10: Reducing extent of upfront costs**

**Do stakeholders have suggestions for ways these upfront costs could be minimised? For example, is it possible for there to be savings by making changes at the same time as other systems changes?**

PIAC proposes several measures to reduce the upfront costs of introducing the WDRM. These measures are designed to reduce the cost to AEMO and retailers, both of which will be required to undergo some system changes to implement the reform.

AEMO is currently implementing the five-minute settlement and global settlement reforms, both of which involve significant changes to AEMO's market operations and commensurate changes to various retailer and AEMO systems. It is also important that the introduction of the WDRM does not impose extra burden on AEMO beyond its capacity to undertake reforms.

PIAC understands that the main cost for retailers might arise from system changes to facilitate split settlement, where they are required to settle bills with consumers on baseline consumption, while settling with networks on actual consumption. This change would be a material cost if done in isolation of other changes. However, there are options to limit this cost.

PIAC recommends introducing the WDR mechanism no later than January 1 2020, with a transitional implementation period until the global settlement and five minute settlement.

During the transition period, retailers could be allowed to settle with both consumers and networks on baseline consumption (as distinct from 'split' calculation for settling the wholesale charges on the baseline and network charges on actual consumption). By delaying split settlement until global settlement and five minute settlement this will give retailers time to implement the required systems changes in the least cost manner.

While the consumer and/or the DRSP may experience higher costs, there will be no material impact on the retailer, the market or the network if the wholesale and network charges are both settled on the baseline consumption

Any network over-recovery that results from this proposal will be:

- Minor, because it is unlikely that there will be very large amounts of WDR in the first two years of the reform, and
- Able to be returned to consumers by the relevant network business. it is also possible that complementary arrangements could be made for the customer to recoup any 'overrecovered' NUoS charges from the DNSP, at least for large customers<sup>12</sup> during the transition period, in a similar manner to how DNSPs are already required to return over-recovered TUoS charges to embedded generators.

Another option to manage the costs to retailers may be to require DRSPs to become the meter provider for connections they contract with during the transitional period. PIAC has spoken to a number of stakeholders regarding this idea and has heard mixed views on whether it would reduce any costs, otherwise borne by the retailer, that are associated with supplying metering data and services. PIAC asks the AEMC to further consider whether this option would assist reduce costs to retailers, bearing in mind the nature of metering required to undertake WDR, particularly with the advent of 5 minute settlement.

In any case, as noted in 9 (a), it is standard practice for retailers and generators to undertake manual adjustments to settlement or billing data when the cost to do so is much lower than the

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<sup>12</sup> As most retail contracts for small customers have 'bundled' network charges, the benefit of reimbursing over-recovered NUoS in this manner for small customers during the transmission period alone may be exceeded by the administrative cost.

cost of changing an automated system. This allows retailers to manage their costs by deferring the modification of their systems at a later date while doing other routine upgrades (such as those that will be required for five minute settlement and global settlement), in the context of which the incremental cost of upgrades for a WDRM will be minor. This option should be allowed for retailers, at least during the transition period.

*Further comments to come in supplementary submission.*

## **Question 11: Indirect costs of proposals**

### **(a) What is the likely extent of any indirect costs imposed through these proposals?**

Negligible. *Further comments to come in supplementary submission.*

### **(b) How could any such costs be minimised?**

Through the use of a transitional arrangement. *Further comments to come in supplementary submission.*

## **Question 12: Risk allocation for baselines**

### **Do stakeholders have views on how risks and costs can be best allocated under a baseline used for demand response?**

An adaptable, robust baselining methodology is critical to the successful implementation of WDR. As ARENA and AEMO and their industry partners learned during the 2017-18 RERT trials, this is not a simple process, and requires refining over time.

We therefore propose a principles-based approach whereby the objectives of baselining would be included in the Rules, with AEMO having responsibility for developing and refining the methodology as the WDR evolves. AEMO should also be able to respond to the potential for inaccurate WDR baselines to cause problems with the NEM dispatch engine (NEMDE), as raised by the AEMC.

The key baselining principles that should be included in the rules include

- 1) The net error for baselining should sum to near zero:
  - a) Over the long term, for any aggregated group of consumers, with respect to energy flows and financial value of DR;
  - b) Instantaneously, for all participating consumers in a given region, with respect to energy flow; and
  - c) Over the long term, across the NEM and each NEM region, with respect to energy flows and the financial value of DR.
- 2) The deviation or range of error for aggregated groups of customers should narrow over time as baselining measures are improved.

Importantly, the accuracy of baselining for individual participants within an aggregated group – particularly individual households – is not of critical importance and must not be a barrier to

implementation. Under the PIAC, TEC and TAI and SAG proposals, any risk associated with any baselining inaccuracy for any individual home within an aggregated group:

- does not impact the market (if the first principle above is met);
- is, and should be, carried by the DRSP and/or the participating consumer; and
- will be reflected in the financial arrangements and terms of the agreement between the DRSP and their customers.

Please refer to PIAC's response to questions 17 and 18 for further recommendations on baselining

### **Question 13: Retailer participation**

**(a) Is it necessary to place an obligation on retailers to participate in the mechanism for it to address the issues raised by the proponents?**

**(b) Are there additional obligations these proposals would place on retailers, and do they differ between the proposals?**

It is unnecessary, and potentially distortionary, to place an obligation on retailers to *participate* in the WDRM. By allowing third parties to offer WDR directly to consumers, the PIAC/TEC/TAI and SAG mechanisms do not require *participation* by retailers.

Rather than *participating* in the WDRM themselves, retailers would only be required to not obstruct their customers from participating. DRSPs can then form a functioning WDR market by working directly with consumers.

Once third parties begin to offer WDR to consumers, retailers may well seek to enter that market in a way they have not to date and PIAC would strongly support this increased competition; but if retailers are not able to continue to restrict consumer participation it is not necessary for the success of the mechanism.

*Further comments to come in supplementary submission.*

### **Question 14: Embedded generation and storage**

**(a) Do stakeholders have preliminary views about the ability for the proposed mechanisms to accommodate embedded generation, in the form of reduced consumption of electricity from the grid in high price periods?**

*Further comments to come in supplementary submission.*

**(b) Do stakeholders have preliminary views about the ability for the proposed mechanisms to accommodate, as demand response, increased consumption during low price periods (whether due to charging batteries, increasing production or any other action by the customer)?**

*Further comments to come in supplementary submission.*

## **Question 15: Thresholds for participation in mechanism**

### **(a) What thresholds, if any, should apply to participation in the mechanism for individual consumers and aggregated portfolios? For example, large consumers as opposed to small consumers; a MW size threshold?**

Consumers of all sizes should be able to participate in wholesale DR in the way they choose to do so.

PIAC strongly opposes excluding small consumers from participating. PIAC agrees with the AEMC that a large portion of the benefits of the WDRM is likely to come from expansion of WDR opportunities for small consumers. PIAC understands that some stakeholders are concerned about the consumer protections implications of allowing small consumers to participate. However, we consider that with careful consideration of these issues and amendments to the NERR as well as NER, it is entirely practical to address these concerns.

*Further comments to come in supplementary submission.*

It may, however, be desirable to place a minimum threshold on directly bidding into the wholesale market, effectively requiring small consumers to contract with a DRSP to provide WDR.

Regardless of any threshold, PIAC does not expect it will be an attractive option for individual small consumers to bid directly into the wholesale market. Therefore, any such threshold is unlikely to pose a material restriction on small consumer participation.

Further, no consumer should be required to participate in the WDRM, regardless of size. Through discussions with Major Energy Users, it has become clear to PIAC that even some large users (i.e. above 30MW) consider bidding DR directly into the wholesale market is too complex. These consumers should have the option of doing so if they wish, but should also retain the ability to contract with a DRSP instead, or not participate at all. Therefore, the AEMC should not introduce a MW threshold above which consumers are required to directly participate in the WDRM, rather than via a DRSP.

### **(b) Should there be thresholds at which different scheduling obligations apply?**

*Yes. Further comments to come in supplementary submission.*

## **Question 16: Implementation timeframes**

### **(a) How long do stakeholders think would be reasonably required to implement the proposals as set out in the rule change requests?**

*Further comments to come in supplementary submission.*

### **(b) How could the implementation timeframe be reduced? What trade-offs may need to be made to the design to achieve this?**

*Further comments to come in supplementary submission.*

## Question 17: Centrally determined baselines

### (a) How important is it to design against the possibility for bias and gaming?

Please refer to Question 17 (b)

### (b) How can a baseline methodology appropriately align incentives such that the risk of systemic bias is minimised?

Please refer to Question 12. *Further comments to come in supplementary submission.*

While robust baselining approaches are important, in PIAC's view the risk of gaming has been overstated, particularly by the AEC and others who oppose a third party demand response mechanism. The AEMC's consultation paper echoes this concern. PIAC is less concerned about the magnitude of such risks, given

- much demand response is likely to be automated, making it easier to measure and control as well as being somewhat simpler to baseline compared to entirely manual DR. In the case of the more advanced demand response markets in the US, only 0.7GW of over 18.3GW of enrolled demand response capacity in the US is behavioural, compared with the mostly manual curtailment processes found in the RERT demand response pilots over 2017-2018.
- There is significant reputational risk to gaming baselines that will serve as a deterrent to DRSPs doing so. Businesses that provide DR services will generally have an ongoing relationship with consumers (rather than the 'set and forget' relationship that consumers expect from a retailer) and behaving with integrity and transparency will be key to these businesses maintaining these relationships and retaining their customers.
- Opportunities for consumers to inflate baselines are limited. As noted in an article from Business Spectator in December 2013, responding to an earlier article in which an AGL staffer claimed the DRM proposed by AEMO at the time was vulnerable to gaming:

Baseline consumption is used as a reference for the energy that a participating consumer would have used had they not curtailed their load. [The author's] concern about gaming demonstrates a lack of understanding of not only the proposed DRM, but of how consumers use energy.

The baseline approach proposed by AEMO is similar to that used effectively in other energy markets around the world, with some appropriate customisation for the Australian context.

**Consumption is calculated on the basis of energy consumed on site over a matter of weeks. Given the intermittent nature of high price events and difficulty projecting them more than hours in advance, to inflate one's long term baseline energy consumption would require energy users to pay much higher bills over weeks and months on the off-chance of the occasional smaller windfall.**

As a strategy for managing risk and making long term profit, gaming the DRM is up there with playing poker machines."<sup>13</sup>

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<sup>13</sup> <https://www.theaustralian.com.au/business/business-spectator/agl-is-wrong-on-demand-response/news-story/e70bf6e1b68783e81adab60b29d58ca2>

PIAC notes that risks associated with baseline calculations – real or perceived – are common to any WDR model. Arguably, the AEC’s model carries additional risk compared to the PIAC, TEC and TAI and SAG models due to the lack of a standardised, transparent and independently-monitored approach to baselining.

PIAC proposes a principles-based approach whereby the objectives of baselining would be included in the Rules, with AEMO having responsibility for developing and refining the methodology as the WDR evolves. AEMO should also be capable of responding to the potential for inaccurate WDR baselines to cause problems with the NEM dispatch engine (NEMDE), as raised by the AEMC.

The key baselining principles that should be included in the rules include

- 1) The net error for baselining should sum to near zero
  - a) Over the long term, for any aggregated group of consumers, with respect to energy flows and financial value of DR;
  - b) Instantaneously, for all participating consumers in a given region, with respect to energy flow; and
  - c) Over the long term, across the NEM and each NEM region, with respect to energy flows and the financial value of DR.
- 2) The deviation or range of error for aggregated groups of customers should narrow over time as baselining measures are improved.

Importantly, the accuracy of baselining for individual participants within an aggregated group – particularly individual households – is not of critical importance and must not be a barrier to implementation. Under the PIAC, TEC and TAI and SAG proposals, any risk associated with any baselining inaccuracy for any individual home within an aggregated group:

- does not impact the market (if the first principle above is met);
- is, and should be, carried by the DRSP and/or the participating consumer; and
- will be reflected in the financial arrangements and terms of the agreement between the DRSP and their customers.

Please refer to PIAC’s response to questions 12 and 18 for further recommendations on baselining

### **Question 18: Accuracy of baselines**

#### **(a) How important is it that the baseline methodology is able to accurately estimate consumption?**

Please refer to PIAC’s response to questions 12 and 17

#### **(b) What administrative mechanisms would improve baseline accuracy without imposing excessive burdens? For example, regular review of baseline methodologies by independent experts, or cross-checking against**



**consumption data from customers that are similar to the demand response provider but are not engaging in demand response.**

There are a number of measures that can be used to support more accurate baselining:

- Monitoring of participant behaviour, and enforcement if required, by the AER;
- Consider creating arrangements similar to the 'bidding in good faith' arrangements that apply to generators if poor behaviour has been identified; and
- Continual improvement of baselining approaches by AEMO, guided by principles, rather than prescription, in the National Energy Rules

Please also refer to PIAC's response to questions 12 and 17.

**(c) Can a baseline accurately account for embedded generation and other dynamic resources that might exist behind the meter?**

Please refer to PIAC's response to question 18 (e) regarding direct metering or measurement of energy flows at any circuit or sub-circuit on the customer side of the meter.

**(d) Should a wholesale demand response mechanism apply only to the types of customers for which baselines can be accurately set, and if so, what types of customers should be eligible?**

In PIAC's view, all customers should be able to participate in WDR<sup>14</sup> Noting PIAC's responses to questions 12, 17 and 18, baselines can be determined with sufficient accuracy for all types of customers, particularly with the use of direct metering or measurement of energy flows at any circuit or sub-circuit as explained in 18 (e).

**(e) How should long-term or permanent changes in a customer's overall level of demand be addressed in baselines? For example, factories may add or retire production lines; households may increase or decrease in size, and may install or remove equipment such as pool pumps or solar panels.**

Baseline provisions should allow for the direct metering or measurement of energy flows at any circuit or sub-circuit on the customer side of the meter, to allow for more accurate calculation of baselines wherever there are:

- stepwise changes to site loads (and potentially generation), such as a factory increasing or decreasing in size or new household loads or generation;
- complicated and variable loads, such as for many residential users; or
- onsite generation and storage, that may either be
  - Participating in the WDRM, or
  - Excluded from baseline calculation if it is not participating in the WDRM.

Direct metering or measurement of energy flows is not technically difficult or overly complicated, and in many respects as similar to conventional parent/child metering within embedded network. It would work for:

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<sup>14</sup> Notwithstanding that some customers may not be able to participate for reasons other than baselining accuracy



- Directly metered loads or individual circuits. For example, baselining the energy consumption for an electric vehicle (EV) that is being used for DR will be much more accurate if measured at the charger for the EV rather than measured at the meter that is also recording the energy flows for customers' other loads (and generation sources). This is equally true for pool pumps, air conditioners, hot water systems, and many industrial and commercial loads such as pumps and compressors.
- Directly metered generation. For example, baselining measures that support directly metering generation within a customer site will allow for
  - subtracting generation for residential (and other) energy users that conventional net metering
  - directly measuring the contribution of embedded generation to reduce load, such as household batteries or commercial and industrial back up generators
- Directly metered energy storage, which may behave like either (or both) generation or load for the purposes of the baselining.

It may be appropriate for some loads – particularly household loads that are more variable in nature than industrial loads – and embedded generation to be required to be measured or metered at a dedicated circuit or subcircuit in order to address concerns about the accuracy of baselining.

It is not necessary to use on-market or market grade meters for these purposes, Many solar inverters and switchboard-mountable measurement devices, for example, have the suitably accurate and reliable measurement and communication requirements built in.

PIAC recommends that the AEMC considers

- Allowing the direct metering or measurement of energy flows at any circuit or subcircuit (on the customer side of the meter) for baselining purposes;
- Making it a requirement that some loads are directly metered or measured for baselining purposes, where this is practicable and adds material accuracy; and
- Permitting non-market meters and measurement devices to be used for this purpose.

Please refer also to responses to questions 12 and 17.

## **Question 19: Settlement under this proposal**

**Do stakeholders consider one of the settlement options outlined to be preferable? How would this approach to settlement impose costs and risks on market participants?**

PIAC supports scenario 3 – Wholesale demand response mechanism.

PIAC questions whether the AEMC's characterisation of the Settlement options in part A.2.2 is entirely correct. Firstly, PIAC understands the cost recovery under the proposed WDRM to work as follows:

In a practical sense:

- The spot price in the NEM goes up, so
- At the request of the DRSP, energy user/s switch/es something off or shift/s some load, so
- Demand on the system is reduced, so
- Less generation is required.

With respect to the financial flows:

- The DRSP is paid the wholesale spot price from the market. That money would otherwise have gone to generators, so the market and other consumers are not out of pocket. A.2.2 Option 3 of the Consultation paper, however, says costs ‘are recovered from all consumers’ under the wholesale demand response market. While this is strictly correct, PIAC notes that here are no new costs being recovered from consumers; there is instead a wealth transfer from existing generators to participating consumers, and the overall cost (to all consumers) of energy from the market is less, due to improved competition.
- The DRSP pays the participating consumer according to contract terms previously agreed between them.
- The participating consumer still pays the retailer based on what they would have consumed anyway, (baseline consumption), so neither the retailer, nor their other customers, are out of pocket. A.2.2 Option 2 of the Consultation paper, however, says the value of demand response is ‘recovered from the retailer and the participating consumer’ for the WDRM. PIAC would appreciate clarification of the AEMC’s understanding of this; and
- The distributor is paid for the actual use of the network (just like normal, so the neither the distribution business, nor their other customers, are out of pocket).

## **Question 20: Other considerations for the wholesale demand response mechanism**

**Do stakeholders have views on these other considerations set out above? Are there other considerations not raised here that should also be considered when designing a wholesale demand response mechanism?**

*Further comments to come in supplementary submission.*

## **Question 21: Cost recovery for the separate market**

**What do stakeholders think about the proposed cost recovery arrangements for the separate market?**

*Further comments to come in supplementary submission.*

## **Question 22: Introduction of a separate market**

*Further comments to come in supplementary submission.*

**(a) Would the proposal set out in this appendix be faster to implement than the wholesale demand response mechanism discussed in appendix A?**

**(b) If stakeholders do not consider that it would be faster to implement, is there merit in exploring this as an alternative to the other proposed demand response**

**mechanisms? What are the costs and benefits that should be considered in doing so?**

**(c) Are there any additional mechanisms that could be implemented more quickly than a wholesale demand response mechanism?**

**(d) What are stakeholder views on the feasibility of co-optimising this separate market with the existing wholesale market?**

### **Question 23: Wholesale demand response register mechanism**

**(a) What are stakeholder views on this option to facilitate demand response?**

PIAC does not support the AEC's proposal to introduce a demand response register rather than a WDRM.

While the AEC proposal lacks much of the detail required to fully understand how it would work in practice, it clearly fails to remove the four barriers addressed by the PIAC, TEC, and TAI and SAG proposals:

- The AEC proposal seeks to preserve the existing distortion to the market created by the absence of a level playing field between demand response and generation businesses.
- The AEC proposal does not promote the availability of DR throughout the supply chain and among all consumers, as participation would be still be limited to consumers that are with participating retailers. This also presents geographic limitations to using DR for network services.
- The AEC proposal does not support real consumer choice and confidence. Under the proposal, consumers who want to do DR will be required to accept the DR terms and any energy contract terms of their current retailer, and will be unable to move their combined DR and energy contract to any retailer that does not have the same business model.
- The AEC proposal does not allow WDR to always be offered by the demand response service providers (DRSPs) who are best equipped to provide it where the retailer does not support that service provider. Further, any modifications to address this through compelling retailers to allow access between any customer and any DRSP with have the adverse impact of limiting retailers from focussing on delivering energy retail services.

For these reasons, the proposed AEC mechanism is unlikely to facilitate any material increases in demand side participation, and is clearly incapable of producing the associated NEM-wide benefits of optimal penetration of DR.

**(b) What do stakeholders consider the benefits of this option would be?**

This option would not produce significant benefits for consumers or the market.

**(c) What do stakeholders consider to be the costs associated with this option?**

It is difficult to determine the actual costs for this option due to the dearth of detail in the AEC's proposal. The AEC's proposal oversimplifies, or at least fails to address, aspects of the approach that are in practice very complex in nature. For example, under the AEC proposal elements of WDR such as baselining, settlement, metering and payments would need to be agreed between

all (or most) retailers, and all (or most) DRSPs, with terms that are acceptable for all (or most) participating consumers.

As the AEC proposal does not address the extensive duplication required in these multilateral arrangements, it hides what appears to be considerable costs to the market, DRSPs and consumers when compared with the PIAC, TEC and TAI and SAG proposals

**(d) Are there any implications (regulatory or otherwise) that are not raised in the discussion of this option?**

As noted in 23(c), to achieve the outcome of optimising the uptake of WDR under the AEC proposal, elements of WDR such as baselining, settlement, metering and payments would need to be agreed between all (or most) retailers, and all (or most) DRSPs, with terms that are acceptable for all (or most) participating consumers. Expecting any of those groups of stakeholders to reach productive agreement on those matters is unrealistic, and expecting all of them to is completely implausible

**Question 24: Standard wholesale demand response offer and mandatory wholesale price pass through offer**

**(a) What are stakeholder views on these options to facilitate demand response?**

PIAC appreciates the careful consideration the AEMC has put into options to improve the AEC proposal, however in PIAC's view the AEC proposal is unworkable with or without these changes.

Requiring retailers to offer spot price pass-through:

- is possibly unnecessary. At least one innovative retailer offers that service to small customers today, and a number have offered it to large customers;
- may increase some retailer's costs, due to
  - significant billing and settlement systems changes they will require, and
  - the spot price being above the cost they are currently exposed to in the market due to contracts and/or vertical integration;
- unlike the PIAC, TEC and TAI and SAG proposals, exposes residential consumers to risk in requiring them to be exposed to potential hardship through constant exposure to spot prices 8,760 hours per year for the purpose of reducing or shifting load during what would usually be less than 10 hours of demand response; and
- doesn't fix the fundamental problem of ensuring access to DR services for consumers, or the other fundamental barriers that are addressed by the PIAC, TEC, TAI and SAG proposals.

Mandating that retailers offer demand response runs the risk of being:

- *Distortionary*, and placing *upward pressure on retail prices*, if retailers are required to pay at or near the spot price, as this may be above the cost they are exposed to in the market due to contracts and/or vertical integration;
- *Ineffective*, and *unfair to participating consumers*, if retailers are not compelled to pay a price that reflects the value to consumers. In the absence of fair and reasonable payments, consumers will not take up these offers, or will take them up and be underpaid; and

- *overly complicated* if the above two issues are addressed with prescription or guidance around fair and reasonable payments, and commensurate monitoring and enforcement is in place to ensure compliance.

Developing a standard WDR contract, while challenging due to the widely ranging nature of how WDR:

- may assist in standardising DR offerings arrangements to some extent, which would be helpful to businesses that genuinely want to undertake DR;
- potentially help consumers to navigate the market for WDR; and
- have flow on benefits of assisting the smoother development of the market for WDR, and DR more broadly.

PIAC therefore supports this suggestion by the AEMC as a stand-alone suggestion, and recommends that the AEMC considers tasking an appropriate institution with the development and maintenance of a suite of standardised DR contracts rather than a single one.

However, developing standard WDR contracts for the express purpose of encouraging retailers to do demand response would be a bit like bringing water to a horse: It's more work than leading the horse to water, and you still can't make it drink. The absence of template DR contracts is not a barrier to retailers offering DR services if they are inclined to, and if retailers are not interested in doing DR, a contract template won't make them interested.

PIAC supports market based arrangements, rather than intervening with prescriptive rules and regulations, wherever markets can deliver effective, efficient and fair outcomes. It is in the long-term interests of consumers (LTIC) to let individual retailers choose whether or not they offer DR, and on what terms in the same way that it is in the LTIC to let individual consumers choose whether or not to take up DR from a particular retailer. Hence, we support a WDRM that removes barriers to entry to the wholesale market, allowing other parties that want to provide DR, and consumers who want to participate, to do so in a level playing field.

**(b) Do stakeholders consider these options to be preferable to a wholesale demand response register?**

Yes, insofar as the register as proposed by AEC will be ineffective without fundamental improvements. However, for reasons described in 23 (a), the AEC proposal is unworkable with or without these changes.

**(c) Do stakeholders consider these options to be complementary to a wholesale demand response register?**

Yes, insofar as the register as proposed by AEC will be ineffective without fundamental improvements. However, for reasons described in 23 (a), the AEC proposal is unworkable with or without these changes.

## **Question 25: Issue addressed by LSCM**

**(a) Do stakeholders agree that reliability related load shedding inefficiently allocates risks to end consumers? Does the proposed LSCM address this issue?**

Please refer to Question 26 (b)

**(b) Would a LSCM facilitate greater levels of wholesale demand response?**

Possibly, but this would depend on settings and detailed design. Please refer to Question 26 (b)

## **Question 26: Benefits and issues of an LSCM**

**(a) Do stakeholders agree with the outline of the benefits and challenges associated with the introduction of an LSCM?**

Please refer to Question 26 (b)

**(b) What other issues would need to be considered?**

PIAC considers that the LSCM could be a way of making involuntary load curtailment fairer, by compensating consumers whose load has been curtailed. This could have the benefit of providing more community and political confidence in operating the market to achieve the reliability standard of 99.998% reliability, rather than the impractical the vastly more expensive 100%.

LSCM could also provide the means to operationalise a price/reliability trade-off in the market. To this end, and to effectively transfer risks from consumers to retailers, payments to consumers should be linked to the Value of Customer Reliability (VCR) determined by the AER, rather than the Market Price Cap (MPC).

While the LSCM would potentially serve as a helpful adjunct to market and emergency arrangements, it should not be considered an alternative to the same. Noting this, and that the LSCM is a new idea that stakeholders will require more time and resources to fully consider, PIAC is of the view that there is merit in developing the LSCM further in the context of a process that considers its role in relation to broader emergency arrangements (including RERT, NEG, MPC setting and VCR) to ensure it is the most efficient way to allocate risks while minimising duplication. PIAC suggests that if there is another planned review of reliability frameworks, this would be an appropriate context in which to do this.