



18 April 2018

Ms Daniela Moraes
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Ms Moraes,

National Electricity Amendment (Register of distributed energy resources) Rule 2018

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in New South Wales. Established in 1982, PIAC tackles systemic issues that have a significant impact upon disadvantaged and marginalised people. PIAC welcomes the opportunity to comment on the AEMC's National Electricity Amendment (Register of distributed energy resources) Rule 2018.

PIAC is supportive of the proposal to create and maintain a register of distributed energy resources (DER). The network and generation benefits outlined in the Consultation Paper are expected to result in cost savings which will have benefits to consumers through reduced supply charges. PIAC agrees that additional benefits to consumers, also outlined in the Consultation Paper, include the safety aspects in the event of a fire and other emergencies, product safety recall and proper product end of life disposal.

PIAC is also supportive of the register's use by policy makers, researchers and third parties to enable innovation in the energy system, particularly in regards to delivering demand response programs. PIAC recently undertook research examining the options provided by energy retailers for demand response for their consumers and we found that very few retailers are currently offering demand response options. Access to the data in a register (provided that appropriate protections of personal information are in place) could enable more demand response options for consumers provided by independent third parties. This would have benefits to the participating consumers, make it more financially viable to install DER due to higher take up, as well as benefits to all consumers through a more efficient system.

PIAC considers that the establishment of a register is time critical if it is to be effective and avoid the complexity that would ensue from the retrospective collection of the required information. In addition, the design of the register needs to be forward focused and enable the flexibility required to be relevant in the context of a rapidly evolving market.

Consideration also needs to be given to protecting consumer's privacy and a straight forward procedure developed to enable consumers to access and correct their own data.

Attached is PIAC's response to the questions outlined in the Consultation Paper.

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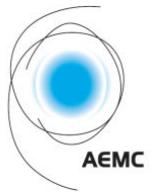
If you would like to discuss PIAC's submission further, please do not hesitate to contact me.

Yours sincerely,

Craig Memery

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Attachment 1 Stakeholder feedback template

The template below has been developed to enable stakeholders to provide their feedback on the questions posed in this paper and any other issues that they would like to provide feedback on. The AEMC encourages stakeholders to use this template to assist it to consider the views expressed by stakeholders on each issue. Stakeholders should not feel obliged to answer each question, but rather address those issues of particular interest or concern. Further context for the questions can be found in the consultation paper.

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Questions	Feedback
Chapter 4 – Assessment framework	
1. Is the assessment framework appropriate for considering the proposed rule changes?	
2. Are there other relevant considerations that should be included in the assessing the proposed rule changes?	Explicit articulation that the register should provide innovative demand response benefits for consumers The DER register is likely to provide benefits in terms of more effectively valuing, and efficiently implementing, measures to address reliability and security of supply There should also be consideration of how the proposed rule change will interact with how the Consumer Data Right will be implemented in the energy sector.
Chapter 5 – Section 5.1.1 – Benefits of a register	
3. What are the likely uses of a distributed energy resources register?	As outlined in the Consultation Paper, the register can <ul style="list-style-type: none">- Assist networks to plan to ensure investment in the network is appropriate. This efficiency can help reduce costs for consumers

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	<ul style="list-style-type: none"> - Assist AEMO with load forecasting, particularly forecasting peak demand. This efficiency can help reduce costs for consumers - Provide first responders and other workers with appropriate information to protect theirs and others safety - Assist consumers if there is a DER product recall - Assist consumers properly dispose of their DER when it comes to the end of its life. <p>The information in the register could be used by policy makers, researchers and third parties to support better planning and innovation of the energy system. However, whilst there are benefits to third parties accessing the data, particularly to find solutions where there are network constraints, care needs to be taken to ensure that the data is not used by unscrupulous marketers to target the sales of DER through door-to-door, telephone and other marketing. For example, it may be that AEMO or networks identify areas where there are issues and seek tenders from third parties to design solutions to the constraints. That way, DER owners can be approached to take part in DR programs which can benefit the individual households as well as consumers across the system, but their personal information would only be given to a third party under a contract.</p> <p>The DER should assist the AER in assessing the efficiency of network investments in regulatory proposals and regulatory investment tests.</p> <p>Given that the deployment of batteries, demand response and other DR potentially represents a change in the expectations and value that customers place on reliability, the DER register should be used in assessing VCR by AER and others.</p> <p>The register could also be useful for new owners of properties</p>

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	to access information about an existing product.
4. How, and to what extent, could the static information provided by a DER register meet the objectives outlined by the COAG Energy Council, namely:	<p>The DER should be an input to various forecasting (Annual Planning Reports by network businesses, National Energy Forecasting Report by AEMO and Connection Point Forecasts by AEMO), planning, market operation and reliability settings.</p> <p>PIAC supports allowing data to be cross checked against meter data for those purposes.</p>
a) more accurate load forecasting?	See above
b) improving AEMO's ability to manage power system security during credible contingency, protected and non-credible contingency events?	See above. Also, the DER should play a role in the monitoring, operation and design of ancillary services markets.
c) improving AEMO's ability to set the bounds of the technical envelope at an efficient level?	See above. Also, the DER should play a role in the monitoring, operation and design of ancillary services markets.
d) improving efficient market and network investment?	See above
5. Are there any other ways that a distributed energy resources register could benefit the National Electricity Market?	<p>The register would allow researchers, policy makers and other agencies, including ABARE, ABS, ARENA and CEFC, to have a clearer understanding of the take up and nature of use of DER. With proper processes, third parties such as demand response aggregators could also use the information. This has the potential to result in better outcomes for consumers including effective incentives for DER, well-designed demand response programs and overall system efficiency benefits.</p> <p>Where appropriate, frameworks and arrangements in other sectors could be modified to take advantage of the information in a manner that promotes the long term interests of energy consumers. To this end, PIAC encourages the AEMC to make recommendations that may extend changes to energy frameworks.</p>

Questions	Feedback
6. What features does a register need to have in order to meet the objectives outlined by the COAG Energy Council?	PIAC would be pleased to meet with the AEMC to discuss this further.
Chapter 5 – Section 5.1.2 – Expected costs	
7. What costs do you believe would likely be involved in the collection of useful data about DER?	<p>Costs should be considered on a maximum net benefit basis, not on a least cost basis.</p> <p>PIAC expects that cost recovery arrangements that smear the costs of the DER across the market are unlikely to place materially regressive costs on disadvantaged and vulnerable consumers. Nonetheless, considering the broader social and environment benefits of the DER and the use of DER data for parties external to the energy market, PIAC asks the AEMC to consider ways that the DER could be funded in whole or part through consolidated revenue.</p>
8. Do you agree with the costs identified by Jacobs for different stakeholders? If not, why?	<p>The register could also result in cost benefits from enabling DR. With increased DR there would be cost benefits for people who have the DER and participate in DR programs, for other consumers to take up DER (because the price is likely to drop if more consumers purchase it) and financial benefits for all consumers through a more efficient energy system that utilises DR.</p>
9. Are stakeholders able to provide data or case studies that would support further quantification (in monetary terms) of any of costs likely to manifest?	
10. How might the nature and magnitude of these potential costs change over time?	<p>Careful thought will need to be given to an app design to ensure that it remains fit for purpose as DER technology and consumer uptake changes. This will help reduce future costs so that new DER technology can be added to the register.</p>
Chapter 5 – Section 5.2 – Governance	

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11. Please comment on the suitability of the following:	
a) Should 'small scale' systems be limited to generation systems below 5 MW? Should any further limitations be imposed (e.g. a minimum capacity or a threshold in MWh for energy storage)?	
b) Is the NER definition of 'connection point' an appropriate spatial demarcation for 'behind the meter' DER? If not, what is an appropriate spatial demarcation for 'behind the meter' DER?	<p>Considering issues in defining connection points (refer to analysis done by Phacelift Consulting for the AEMC's review of arrangement for electric vehicles and consideration of Multiple Trading Relationships), the spatial demarcation should be the meter.</p> <p>In PIAC's view there is a need to further consider how the DER register would apply in embedded networks. PIAC's initial view is that the child meter (whether contestable/on market or not) in an embedded network should be the demarcator. PIAC would welcome further discussion with the AEMC on this issue.</p>
c) Is a 'distributed energy resource' " <i>an integrated system of energy equipment co-located with consumer load</i> "? If not, what else could it be characterised as?	<p>The definition should unambiguously include demand response. To this end, incorporating reference to 'services' in the definition would be of value, given that some DR arrangements may involve little or no 'equipment'</p>
12. Regarding the management of a DER register:	
a) To what extent should the types and capacity of DER eligible for inclusion in the register be defined in the NER or in an AEMO guideline?	<p>The technology (and service) types should be defined in general terms in the NER which can be updated to reflect changes in innovation and uptake. Certain detailed elements could be defined in the guideline which could be amended faster.</p>
b) Should the nature of the information being collected and recorded in the register and any other requirements, such as how often parties need to report the data, be determined in an AEMO guideline?	<p>Generally, yes</p>

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<p>c) What types of principles, factors or other criteria should AEMO be required to consider when developing guidelines on the collection and recording of information on DER?</p>	<p>PIAC supports AEMO receiving the information it needs to run the energy system in the most efficient way including using it to support other frameworks as listed in answer to question 4. This should be performed in ways which are transparent and accountable. Efficiently running the system will keep costs to a minimum and therefore benefit all consumers. Transparency and accountability should be used to ensure the privacy of consumers is protected, for example from marketers.</p> <p>However, AEMO is likely to need guidance about how to ensure the register is useful in regards to safety for first responders and other workers given that this falls outside their current role and expertise.</p>
Chapter 5 – Section 5.3 – Data collection and compliance	
<p>13. How often does the data need to be collected and updated to achieve the objectives of a DER register?</p>	
<p>14. Do you agree that there is a need for consistency across network regions in what data should be collected?</p>	<p>Consistent data collection is desirable because it helps AEMO run the energy system most efficiently, avoids duplication of data and systems, and assists the AER and others in interpreting data. Subsequent cost savings are passed to consumers, so consistent data collection is desirable.</p> <p>If data is presented in a consistent and easy to understand format, then this will help consumers understand it should they access their data.</p>
<p>15. If DNSPs' connection application processes are considered a good method of collecting data, what changes are needed to existing processes?</p>	<p>The low levels of compliance as cited in the Consultation Paper's description of the DNSP's connection application processes would need to be examined. They suggest that rules may need to be made and enforced. In addition, research exploring how compliance could be improved through education, communication, ease of reporting, incentives or penalties should be explored.</p>

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	<p>If the benefits of consistent data collection are shown to be in consumers' interest, then the issues with inconsistencies of data collection across the networks would need to be addressed.</p> <p>There would also need to be an obligation for DNSPs to share DER data with AEMO.</p>
16. Should obligations on parties other than DNSPs be considered to support data collection? If yes, which parties are best placed to collect and report this data?	<p>Without obligations, some data is unlikely to be collected at useful rates. Electricians/installers, retailers and third party service providers should be obliged to report DER. Where DER can be installed by owners, then options to ensure compliance should be examined. This could include obligations for product retailers to collect and report information at point of sale. Reliance on compliance from overseas vendors would need to be avoided.</p>
17. How would an obligation on the parties identified above best be applied and enforced? Please provide details.	<p>PIAC supports the Clean Energy Council's comments on this issue.</p>
18. Will a register be beneficial if the levels of compliance in relation to providing information are similar to the low levels of compliance with the DNSP connection application processes? What levels of compliance are needed?	
19. How else can compliance levels be improved?	<p>In addition to making and enforcing rules, it is worthwhile undertaking behavioural research to understand the reasons for lack of compliance where this is an issue. This should explore the best motivations for different participants including installers, retailers and DER owners. For example, whilst well targeted incentives and penalties can be effective, people are often motivated for other purposes, especially regarding community benefits. Ease of use is a key factor also. It may be the case that communicating the safety benefits of having a DER register is an effective motivator to achieve compliance.</p>

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20. How can compliance best be maintained over time as technology changes?	Over time, the method of purchase and installation of technology is likely to change. Periodic behavioural research exploring the best strategies for compliance is an effective way to ensure that high levels of compliance can be maintained. PIAC supports Dr Penny Crossley's suggestions on this issue.
Chapter 5 – Section 5.4 – Transparency and confidentiality	
21. Given the nature of information that may be required to be provided by registered participants under the proposed rule change, are existing regulatory arrangements (such as the protected information provisions under the NEL and Privacy Act 1988) regarding the collection and disclosure of information adequate to protect market participants and consumers whose DER systems are included in the register?	Yes. However, explicit informed consent provisions may need to be applied, if, for example, data is used for marketing, then this needs to be disclosed at the point of sale.
22. If not:	
a) What are the likely nature, and magnitude, of potential consequences of insufficient protection of such information?	
b) Should the NER limit, on the basis of confidentiality concerns, the information that registered participants or others would be required to provide to AEMO under the DER Register Guidelines? If yes, how?	
c) Should the NER limit, on the basis of confidentiality concerns, how AEMO may use or disclose information provided to it under the DER Register Guidelines? If yes, how?	
23. Are there any competition concerns raised by the establishment of the register?	
Chapter 5 – Section 5.5 – Safety issues and emergency response	
24. Would the sharing of data collected under a DER register be useful to emergency services, and if so, how?	PIAC supports the comments made by Dr Penny Crossley in relation to Chapter 5 Yes, it is of use to know in advance what DER is present. Therefore, this question needs to be asked of emergency

Questions	Feedback
	<p>services to determine their specific needs.</p> <p>Whilst considering rules and processes in the name of safety is important, there needs to be a net cost benefit for any incremental change, and the most efficient way of achieving safety outcomes should be sought.</p>
25. Are there existing mechanisms currently in place (e.g. requisite IT systems) that could facilitate the practical sharing of data with emergency responders on a real time basis?	
26. Is the proposed DER register the most practical mechanism to provide emergency services with the required information?	Ideally there is also signage at the location regarding the presence, location and chemistry of batteries, and the register is adjunct to this.
27. What important features does a register need to have in order to meet the needs of emergency services?	The presence of solar and the chemistry of batteries. The size and location of the battery is also likely to be beneficial. Obviously, this would need to be reassessed as the products on the register changes.
28. To what extent is energy related information already shared between relevant bodies (e.g. AEMO/CER) to emergency services for safety reasons?	

Other comments on the rule change request or consultation paper

29.	Do you have any other comments on the rule change request or the consultation paper?	<p>PIAC strongly supports Dr Penny Crossley's suggestion that an app be developed to allow interaction with the register by relevant parties such as installers. This approach offers a number of efficiency benefits that apply to other chapters herein.</p> <p>Regarding sharing data with third parties:</p> <ul style="list-style-type: none"> - Where a positive consumer outcome can be demonstrated data should also be made available to reputable researchers, including consumer advocates. If the research is to be of benefit to consumers then AEMO should consider waiving any fee. - Caution should be taken when sharing information with
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Questions	Feedback
	<p>private sector entities. These entities should have to prove that their intention with using the data has demonstrable consumer benefits and that they comply with strict privacy requirements. See also response the questions 3 & 4.</p> <p>PIAC agrees with Dr Penny Crossley that consumers should have a process to access and correct their own data without having to submit a Freedom of Information request. This process should be an easy to access and easy to understand process to ensure that consumers have control of their data.</p> <p>Although the register is not retrospective, the option should be given to owners of DER to add their existing system/s to the register. The ability to do this should be communicated to the community, and the benefits of having DER registered should be articulated.</p> <p>In terms of what data to capture for the register, it is difficult to consider the energy values (such as daily generation), but it is more meaningful to consider capacity of generation or load, eg output capacity and charge capacity. For solar, it should be whichever is less, the PV array or the invertor and the capacity of an electric vehicle charger should be captured for the register, but not the presence or capacity of a car.</p> <p>The AEMC should provide advice in its determination about what kinds of DER should be considered for the register.</p>