



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?	FormBay feels that the current assessment framework outlined is appropriate
2.	Are there other relevant considerations that should be included in the assessing the proposed rule changes?	No
Chapter 5 – Section 5.1.1 – Benefits of a register		
3.	What are the likely uses of a distributed energy resources register?	<p>A Distributed Energy Resources (DER) register would allow for better planning and modelling of energy needs in the energy market and meet the objectives of AEMO.</p> <p>A DER could find applications in emergency situations for first responders in the event of a fire or a natural disaster.</p> <p>Data held in the DER could be made available to industry in a de-identified manner to allow industry to find business opportunities in various spaces if AEMC felt that this could contribute to outcomes and policy aims.</p>

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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:	
	a) more accurate load forecasting?	It would provide data of generating systems under 5mw that are currently exempt from reporting to AEMO which would allow better prediction of load during across a range of circumstances
	b) improving AEMO's ability to manage power system security during credible contingency, protected and non-credible contingency events?	At present, generators below 5mw are not recorded and their existence in the broader network is inferred from changes in customer energy profile. Having detailed information of all smaller PV generation systems gives a full picture of what different parts of the grid are likely to do at any given point in the day or during weather events.
	c) improving AEMO's ability to set the bounds of the technical envelope at an efficient level?	Having actual data of each system behind the meter allows AEMO to better understand loads and energy requirements in different areas potentially at granular location levels, providing AEMO with improved data on load requirements and timing. An additional benefit is that, after the DER has been running for a few years, the data collected could also better information projects for the future which could then lead into investment for other forms of energy generation.
	d) improving efficient market and network investment?	As per our response in 4c, having actually PV generation date of systems below the 5mw threshold will allow for better assumptions around future demand and assessment of alternatives for network or distributed investment.
5.	Are there any other ways that a distributed energy resources register could benefit the National Electricity Market?	As below (Q16), there is potential to integrate solar PV and onsite energy monitoring data over time. Whilst this is not the intended outcome of the current rule change, the potential for

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		integrated data (and real time benefits of this) would move a step closer.
6.	What features does a register need to have in order to meet the objectives outlined by the COAG Energy Council?	Seamless collection processes for DNSP's, standardisation of process nationally (where able) and secure, reliable management of the digital collection process.
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?	In a general sense, the costs involved in collection of data for a DER would be the provision of an App to be used on-site during generator installations and the associated costs of providing back-end infrastructure and hosting of data (server costs) We would be pleased to discuss this with AEMO on a commercial in confidence basis following provision of further information in relation to specification, timing and scope.
8.	Do you agree with the costs identified by Jacobs for different stakeholders? If not, why?	The costs outlined appear higher than expected given the ability to leverage existing and proven technology already used by the majority of DNSP's around capturing PV generator data below 5MW.
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?	We would be pleased to discuss this with AEMO on a commercial in confidence basis following provision of further information in relation to specification, timing and scope.
10.	How might the nature and magnitude of these potential costs change over time?	Following a build, testing and onboarding process maintenance costs of a core solution can be managed with relative stability. Changes or further adaptations to a solution are regularly treated as incremental and tend to have their own related benefits or risk management outcomes associated.
Chapter 5 – Section 5.2 – Governance		
11.	Please comment on the suitability of the following:	

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	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)?	We believe the existing definitions and sizing's work as they are and, for the purposes of establishing a DER, do not require to be changed.
	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?	Yes
	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?	No issues identified at this point.
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?	For clarity's sake, it would be helpful to provide definitions of what constitutes an eligible system and what minimum requirements for data DNSPs must collect when notified of these PV generators.
	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?	It is always best to have 'one source of truth' on how to what is required (in this case, data collection for the DER), but then allow DNSPs and industry to determine how to best meet the overarching requirements outlined by AEMO.
	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?	Industry standards, privacy, resilience and best practice.
13.	How often does the data need to be collected and updated to achieve the objectives of a DER register?	At point of installation and at point of any maintenance or modification to the system would be ideal. Further it would be ideal if this were integrated with installation, maintenance and modification data relating to solar PV at the same address.
14.	Do you agree that there is a need for consistency across network regions in what data should be collected?	Yes

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15.	If DNSPs' connection application processes are considered a good method of collecting data, what changes are needed to existing processes?	<p>We would recommend that AEMO provide a single, provider-neutral format for data at the time any new DER system is connected to the grid or a change is made to any existing connection. This would be in the form of an actual template document which all DNSPs could then adopt (and potentially brand if required). Any software solution around data capture could then leverage that single 'source of truth' and more easily integrate with multiple DNSPs across various states and territories.</p> <p>AEMO could then also set broad guidelines on timeframes around reporting new PV generators following receipt of a grid-connection agreement detailing a new generator or a modification to an existing grid-connection.</p> <p>FormBay would be pleased to provide AEMO and other interested parties a demonstration of how this could work leveraging existing technology already used by the majority of DNSP's nationwide and how standardisation of data collection would benefit an already established process</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>In addition to DNSP's AEMO may consider validation of authenticity of product at point of installation (as per the CER's recent initiative). This would ensure that consumers are receiving fit for purpose equipment (helping to eliminate fraud) and enable AEMO to engage (if required in the future) with wholesalers and retailers to impose a light touch regulation or influence over the attributes or quality of DER installed. Further, it would be possible to integrate energy production, storage and consumption monitoring equipment on-site at a later date leveraging existing technology. This could be developed as a voluntary pilot initially but could provide AEMO with valuable data around the operation of the network, the DER's themselves and inform strategic and operational activity.</p>
17.	How would an obligation on the parties identified above best be applied and enforced?	We would recommend consultation with AEMO to define.

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	Please provide details.	
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?	Levels of compliance should be in relation to the need for the DER to capture and hold legally true and correct information to ensure the integrity of the data. We would recommend consultation as to the best strategy.
19.	How else can compliance levels be improved?	We would wish to consult further with AEMO to compare options around frameworks which might be proposed.
20.	How can compliance best be maintained over time as technology changes?	Provision and monitoring of minimum standards coupled with effective communication and industry engagement provide the basis of ongoing change implementation.
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, we feel the existing controls are sufficient as a minimum, however we would like to recommend that it is best to also include an additional requirement in the DER work itself which requires registered participants to maintain some form of ‘fit and proper’ rating to maintain access to any data.
22.	If not:	
	a) What are the likely nature, and magnitude, of potential consequences of insufficient protection of such information?	NA
	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?	NA
	c) Should the NER limit, on the basis of confidentiality concerns, how AEMO may	NA

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	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?	Formbay does not foresee specific competition concerns as currently described.
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?	Yes, it will help with first responders in emergency situations by allowing them access to data which provides a clear picture of what is present on-site, such as batteries, inverters, solar PV and any other unique characteristics which may be collected on-site, e.g. trip settings, rated power output, storage capacity, circuit information, etc This data would be helpful for emergency services with how to operate within a location in an emergency with solar PV.
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?	Yes.
26.	Is the proposed DER register the most practical mechanism to provide emergency services with the required information?	Yes
27.	What important features does a register need to have in order to meet the needs of emergency services?	<ul style="list-style-type: none"> - An accessible and secure API framework - User access controls - Accessible and easy-to-use application interfaces - Real-time, up-to-date data
28.	To what extent is energy related information already shared between relevant bodies (e.g. AEMO/CER) to emergency services for safety reasons?	We do not know.
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?	FormBay collects, processes and validates data for the PV industry nationally on behalf of the Clean Energy Regulator under the Small-Scale Renewable Energy Scheme. As such

Questions		Feedback
		FormBay would be very pleased to provide further information on development and operation of a secure, stable solution which could assist in establishing the DER and the data collection framework for AEMO and relevant industry parties.