

Stakeholder Feedback Template

This template has been developed to enable stakeholders to provide their feedback on the DER Register Information Guidelines Consultation Issues Paper.

AEMO encourages stakeholders to use this template, so they can have due regard to 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.

Stakeholder submissions will be published on AEMO’s website unless they are clearly marked as being confidential. Submissions should be sent to DERRegister@aemo.com.au by Thursday, 07 March 2019.

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Questions	Feedback
Section 3.1 – Information requirements	
<p>1</p> <p>Do you agree with the suggested format and method of data submission?</p>	<p>More information is needed in respect of the data process and the responsibilities. The DER information collection process visually represented in Figure 2 does not provide sufficient information to explain how the data points outlined in Appendix B are actually collated and submitted. For instance looking at “2.0 Submission Process”, does this indicate submission from the NSP to AEMO, submission from installers to NSPs or submission of data from NSPs and installers to AEMO.</p> <p>Method of data reporting</p> <p>As a first principle, Tesla firmly believes that all data relating to a DER asset should be submitted by a single point of contact – the NSP. Where installers are also required to submit information in respect of individual assets the likelihood of poor, incorrect or incomplete data is very high. This is particularly the case for DER assets like storage where there is no incentive attached to an installer correctly completing the information. As STCs for the solar sector end this is likely to also be the case for the distributed solar sector.</p> <p>The DER register will provide the most benefit to AEMO where data is correct.</p> <p>If the onus is placed on the installer to complete DER Register data, we recommend the following process:</p> <ul style="list-style-type: none"> Engage with the Clean Energy Council (CEC) Installer Reference Group and fully consider how the installer base in Australia will be educated on these requirements. The Register will only be as successful as the level of data that

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	<p>it captures. AEMO should also consider where the responsibility lies for training and passing through information to installers. Will it sit with AEMO? Or delegated through to the CEC or other industry bodies?</p> <ul style="list-style-type: none"> • Consider the level of data required to serve the purpose of the program. Our comments on particular data points suggested in the model are included below. • Streamline reporting processes as much as possible. It will be critical for compliance that information is pulled from existing sources, that there is no double up of information requests from installers, and that the administrative requirements are as low as possible. • Consider incentives that could be introduced to encourage compliance from installers to provide information. <p>Further AEMO should consider specifying a review timeline to consider how effective the proposed data collection requirements are.</p>
<p>2</p> <p>Are there adequate access arrangements for Installers and installation software providers to submit data on behalf of NSPs into the DER Register? If not, how might this be improved?</p>	<p>There are not adequate processes currently in place.</p> <p>As noted above, all information submitted to AEMO in respect of the DER register needs to come from a single source. Installers will not have the necessary information to submit information on behalf of NSPs. Without incentives to do so (such as STCs for the CER register), installers may be unlikely to lodge the information needed, resulting in incorrect or incomplete datasets.</p>
<p>3</p> <p>Are there any risks associated with the different submission frequency between the <i>DER generation information</i> and <i>DSP information</i>?</p>	<p>It is unclear why different processes and timelines are needed for DER and DSP information.</p> <p>Before these provisions are finalised, AEMO should consider the long-term value of both the DER Register and the DSP Information in contributing to the reliable operation of the market.</p> <p>In the long-term AEMO is going to get the most value from dynamic information, specifically understanding the aggregate output of a number of assets during a dispatch period. Longer term this is likely to include any distributed asset base capable of being controlled. See for instance the work that is ongoing with the AEMO NEM Virtual Power Plant (VPP) demonstrations and the possible introduction of a wholesale demand response (WDR) mechanism.</p> <p>For the purposes of accounting for the total MWh contribution of DER assets in aggregate during a dispatch period, it will be important for DER and DSP assets to be treated with a level of consistency. There is a degree of overlap between the two processes.</p> <p>For instance, the Issues Paper notes that DSP information includes “the provision of unscheduled generation in response to the demand for, or price of, electricity”. This unscheduled generation will no doubt come from assets listed in the DER Register. Having two separate processes in place will likely require additional consolidation across AEMO to true-up the market impacts across a number of different internal reporting processes.</p>

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	<p>In the event that VPPs or other aggregated assets register under new market classifications, or are scheduled in a certain way, there will be even more consolidation and trueing up of information across AEMO business units.</p> <p>The DER Register should aim to capture all assets capable of controlling MWh (either generation, demand reduction or bidirectional energy flows) which would capture DER and DR assets. Categorising the two separately for the purposes of the DER provides no benefits and is likely to create long-term risks that will need to be undone in the future. It is better for the register to be as technologically neutral as possible.</p> <p>By way of example – consider the market ancillary services specification (MASP) that was introduced to unbundle energy and ancillary services. This was written specifically for demand management technologies and has resulted in limiting the potential output of battery energy storage system (BESS) assets.</p>
<p>4</p> <p>What is an alternate approach to the frequency of data submission? How would this be implemented?</p>	<p>Tesla’s concerns in respect of the data collection approach are outlined above. The frequency of the data submission poses less of an issue to the successful outcomes of the DER register, than the method of collection and body responsible for collecting and submitting information to AEMO.</p> <p>It is also unclear who bears the responsibility for reporting on a physical change to an asset, particularly where the change is driven by the customer. Where the customer requests removal of an asset by a company who did not complete the original install, they will have no method to notify AEMO or the NSP of this change.</p>
<p>5</p> <p>Are there any other relevant issues that have not been considered?</p>	<p>The definition of small generating units under the NER, and outlined in the AEMO Issues Paper, would include BESS assets >5MW. As per the AEMO “Registering a Battery System in the NEM – fact sheet”¹ BESS assets >5MW should register as a Scheduled Generator and Scheduled Load.</p> <p>We assume that it’s not the intention of the DER Register to capture assets that are registered with AEMO in accordance with Chapter 2 of the NER. The DER register information guidelines should make this position very clear.</p>
Section 3.2 – DER register storage	
<p>1</p> <p>Are there any issues associated with the separate storage of <i>DSP information</i> and <i>DER generation information</i>?</p>	<p>As noted above, collecting and storing data for DSP and DER separately, when there is significant overlap, is likely to create major data fidelity issues and doubling up for reporting requirements from installers.</p>
<p>2</p> <p>Are there any other relevant issues that have not been considered?</p>	<p>N/A</p>
Section 3.3 – DER register information access to NSPs	

¹ https://www.aemo.com.au/-/media/Files/Electricity/NEM/Participant_Information/New-Participants/battery_fact_sheet_final.pdf

Questions		Feedback
1	What <i>regulatory obligations or requirement</i> do NSPs intend to use DER register data for?	N/A
2	Do you have a preferred process for accessing <i>DER register information</i> ?	N/A
2a	Is existing NMI discovery (adding in DER) useful?	N/A
2b	Are existing C1, C4 and C7 reports (including DER) suitable? Is an additional report required? If a new report is required, what should it include?	N/A
2c	What are your views on using an API to develop custom reports?	N/A
3	Do existing C1, C4 and C7 reports need to be provided if an API is provided?	N/A
4	Are there any other relevant issues that have not been considered?	N/A
Section 3.4 – AEMO reporting and publication		
1	Are there additional variables that should be published in the <i>DER register report</i> (see Appendix B for list of data)? Why?	N/A
2	Is aggregation at the post code level suitable? If not, what is an appropriate aggregation variable and why?	Aggregation of data at a post-code level will provide valuable information to policy makers. We would suggest that this is a suitable metric for now, with additional aggregation variables to be explored later.
3	Do you agree with monthly updating of the <i>DER register report</i> ? Why/ why not?	N/A
4	Are there any other relevant issues that have not been considered?	N/A
Section 4.0 – Proposed Data		
1a	What are the costs and impacts of AEMO's proposed data requirements? Please break	

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<p>down and describe the costs based on: Upfront once-only costs vs ongoing costs</p>	<p>Impacts</p> <p>The largest impact of the proposed approach is likely to be issues with compliance and completeness of data. As noted above there are no incentives for installers to provide this information currently, and it may be perceived as creating an additional administrative burden.</p>
<p>1b What are the costs and impacts of AEMO's proposed data requirements? Please break down and describe the costs based on: Separation of internal labour costs, contracted labour, system improvement</p>	<p>N/A</p>
<p>2</p> <p>Do you agree with the proposed data requirements? Why/ why not?</p>	<p>Tesla has the following comments on the proposed data requirements outlined in the Data Model.</p> <p>Level 2</p> <ul style="list-style-type: none"> • DERID: it is unclear of the benefit of assigning a DERID to each installed asset. There is also a risk that where multiple assets are reported for a single NMI these are treated as cumulative for the purposes of AEMO planning. The critical piece of information is the export capacity at the NMI. • Other Data Model Level 2 requirements (under frequency and over frequency protection, under voltage and over voltage protection settings) – these should provided from the NSP (as indicated in the Data Model) rather than requiring the installer to provide these figures. <p>Level 3</p> <ul style="list-style-type: none"> • AC connection data requirements. These should be linked to the CEC approved product lists as noted in the comments. Creating a drop-down list with direct linkage to the CEC list will provide the most streamlined approach for data collection. <ul style="list-style-type: none"> ○ Voltage/ frequency protections – as above, this information will be static at the jurisdictional level and should be provided by the NSP. ○ Inverter demand response modes should be pulled from the CEC approved inverter product list rather than individually provided for each install. The risk of installers providing incorrect information for these response modes is high. ○ Inverter power quality response modes – as above, this data should be specified by the NSP or drawn from the CEC approved product list.

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	Level 4 <ul style="list-style-type: none"> Separating DER device requirements from AC Connection data requirements (level 3) is going to cause confusion where devices are fully integrated (such as a BESS with an integrated inverter). The data model needs to avoid duplication of the same device level information being provided twice.
3	Do you agree with the proposed data structure (see appendix B, figure 3)? If not, please explain why it would not work and propose an alternative. <p>N/A</p>
4	Should data variables that have default values prescribed by the AS4777 standards (e.g. Under-frequency protection, Over-frequency protection, Undervoltage protection, Overvoltage protection, etc) be requested as discrete inputs? Why/ why not? <p>Anything prescribed by AS4777 or other Australian Standards should not separately be reported in the DER Register. In respect of individual NSP requirements that differ from the standard requirements of AS4777, these should be provided by the NSP into the DER Register. As an alternative, the CEC list has been updated to include inverter compliance with a number of different standards and requirements (such as IEC62116 compliance). This should also be considered as a proxy list for the data variables.</p>
5	For the AC connection table (appendix B), is it relevant to include protection modes for non-inverter DER? If so, what is the relevant information that should be captured? <p>N/A</p>
6	Do you agree with the data source/ providers for the physical collection, listed in Appendix B? If not, explain why and who else or what other data sources should be involved. <p>As noted above, Tesla believes that the process would be simpler to enforce, with a greater likelihood of success where all information is provided by the NSP rather than the installer.</p>
7	Are there any other requirements that have not been considered? Why are these important? Which table are they relevant to? <p>-</p>
8	In terms of the examples given, are their other DER installation configurations that AEMO should consider? <p>N/A</p>
9	Are there any other relevant issues that have not been considered? <p>N/A</p>
General Comments	

Questions		Feedback
1	Do you have any other comments?	N/A