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.

Organisation: Formbay Trading Pty ltd

Contact name: Jared

Contact details (email / phone): jared@formbay.com.au/ 02 9086 9184

Questions		Feedback
Section 3.1 – Information requirements		
1	Do you agree with the suggested format and method of data submission?	(Referring to clause 3.1.2) – Formbay agrees with AEMO's proposed format and method for data submission. Specifically, we recommend the model where the installer captures DER information on-site and passes that information either to the NSP for further validation or to AEMO directly via an API provided by the relevant NSP for the location of the installation. We feel this on-site data capture method ensures the most accurate and correct information, information which can be validated against multiple other sources as it makes its way through to AEMO and finally, the DER register.
2	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?	At this time, we do not feel that there are adequate access arrangements for installer or third-party vendors to access and/or provide information to NSPs or AEMO. We feel that the provision of APIs by NSPs or an expanded, single-standard API issued by AEMO directly would more easily facilitate the transmission of information from installation site to the DER register.

Questions		Feedback
		We note that the 'access' model for DER information should, typically, be a 'verification approach', i.e. a relevant external party submits data they already have and receives a true/false response back instead of submitting an open query for all information on the register. It does depend on the scenario though – noting that one of the aims of the register is to provide data to first responders (Emergency Services Personnel), they would potentially need the ability to just put through an address only and get back all information on a site instead of the 'verification approach'.
3	Are there any risks associated with the different submission frequency between the *DER generation information* and *DSP information*?	We note no significant risks with different schedules for the submission of DER generation information and DSP information. We support a faster, more regular update of DER generation information to get the most out of this data as quickly as possible.
4	What is an alternate approach to the frequency of data submission? How would this be implemented?	Formbay currently does not operate within the DSP space and we have no comment on the schedule of DSP information at this time.
5	Are there any other relevant issues that have not been considered?	We have no further comments on this topic at this time.
Section 3.2 – DER register storage		
1	Are there any issues associated with the separate storage of *DSP information* and *DER generation information*?	We do not see any issues with this.
2	Are there any other relevant issues that have not been considered?	We have no further comments on this topic at this time.
Section 3.3 – DER register information access to NSPs		
1	What *regulatory obligations or requirement* do NSPs intend to use DER register data for?	Noting that Formbay is not an NSP, we would assume the DER register data might be used for the stated purposes, that is;

Questions		Feedback
		• To meet requirements under the NER • To assist with network planning and management • To assist NSPs with dispute processes in the event proper grid-connection requirements are not met during the installation of the embedded generation.
2	Do you have a preferred process for accessing *DER register information*?	We would recommend any access be via API to allow various stakeholders to create their own methods to access register information, subject to AEMO controls and oversight.
2a	Is existing NMI discovery (adding in DER) useful?	Noting the descriptions for NMI discovery listed in the MSATS user manual, we feel that existing NMI discovery method 1 and 2 would be useful and aid in validating and checking data, but would recommend the process be moved to an API method as well. Noting also that we support the idea of data access being via a 'verification method', i.e. the querent submits the information they already have and is returned a true/false, once again, depending on the nature of the querent (e.g. this method would not be best for Emergency Services personnel who need all information asap to respond appropriately)
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?	Noting that Formbay is not currently a registered market participant, but has reviewed the purpose and scope of these reports from the MSATS user manual, we believe that providing an API and the ability for registered participants to run their own custom reports, while still accessing existing reports via the same API would be a good approach to take around DER register access.
2c	What are your views on using an API to develop custom reports?	We feel that an API to produce custom reports would be the best solution for industry, especially if that API lists the existing reports available in MSATS, i.e. include a call for a user to be able to extract the existing C1, C4 or C 7 reports or configure their own custom one. This provides the most flexibility for industry as those used to working with the existing reports can still obtain

Questions		Feedback
		them, and those that one to produce their own custom versions to suit their needs and requirements may do so.
3	Do existing C1, C4 and C7 reports need to be provided if an API is provided?	The obligation on NSPs to provide information for the DER register is already a large undertaking with many changes and complexities, we feel continuing to provide these reports, while also supporting custom reports via API, would give industry time to work out their own best requirements and not add to the existing time pressure on the DER register changes. Let industry keep using the familiar where possible while we change other things.
4	Are there any other relevant issues that have not been considered?	We do make the recommendation to consider changes around 'Special Participant' Category in Chapter 2 of the NER to support access to this data by external consulting firms and software firms when these entities are contracted by another market participant to carry out work on their behalf. Such a change would need to have appropriate controls to safeguard the data and would need to be included in the rule changes themselves. Such safeguards could be the need to produce audit and security reports, including. Network and Software Penetration testing reports and relevant security documentation to ensure these 'Special Participants' can meet all requirements to access that data. We also recommend again the 'verification method' of access, i.e. these new special participants send in what data they already have and receive just a true/false response with controls placed on the number of 'calls' that can be made for data to prevent wholesale 'harvesting' of information.
Section 3.4 – AEMO reporting and publication		
1	Are there additional variables that should be published in the *DER register report* (see Appendix B for list of data)? Why?	Solar PV panel make and model Expected (approximate) degradation dates – to expound, Solar Products like panels, inverters and batteries, will generally degrade in performance over time. Laboratory testing conducted on these products does provide approximate estimates on this performance drop, i.e. performance on XYZ

Questions		Feedback
		panel should, generally speaking, begin to degrade after 10 years by 10-15%, etc, etc. Taking into account these approximate values might allow forecasting to be more accurate over time as a 6kw system freshly installed today may not produce the same effect in the energy grid in, say, 10 years' time, meaning modelling conducted assuming perfect, fresh systems may not be as accurate (and while the difference in individual system performance drop may not be too much overall, if the same level of degradation is not factored into an entire fleet of embedded generation in, say, a single postcode or network, the cumulative effects of that performance drop across a whole population, be that on the post code level or network level, might be larger than anticipated and have a greater impact than currently realised).
2	Is aggregation at the post code level suitable? If not, what is an appropriate aggregation variable and why?	Yes, we feel aggregation at post code level should provide sufficient information to start with. We would also recommend consideration around aggregation at a street level, as this information would allow NSPs to consider network impacts on a street by street basis if they wish to in their planning and forecasting – noting that this does (if only one house on street ABC has solar) potentially indirectly identity the system owner. There is a balance to be struck on this point depending on what the data starts to look like as it's collated and analysed prior to publication on the AEMO website.
3	Do you agree with monthly updating of the *DER register report*? Why/ why not?	We do agree with monthly updating of the DER register report. Monthly is a suitable schedule for modelling or market analysis.
4	Are there any other relevant issues that have not been considered?	We have no further comment to make on this topic at this time.
Section 4.0 – Proposed Data		
1a	What are the costs and impacts of AEMO's proposed data requirements? Please break down and describe the costs based on: Upfront once-only costs vs ongoing costs	At this stage, we feel it would be hard to accurately estimate costs to meet the DER data requirements as we have not yet identified the data collection model. If the data collection model leveraged existing infrastructure that included on-site data capture from smartphone apps used in the SRES

Questions		Feedback
		scheme, then costs might be reduced. Whereas if this existing infrastructure was not used, it may mean more costs as a data-capture process now needs to be modified to also suit this requirement in addition to what it was originally intended for.
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	At this stage, we feel it would be hard to accurately estimate costs to meet the DER data requirements.
2	Do you agree with the proposed data requirements? Why/ why not?	Yes, we feel most of the relevant aspects of the embedded generation are being capture to a sufficient level of detail to fulfil the requirements of the register and the requirements originally suggested in the Finkle review report. We do recommend the inclusion of photos and product serial information in the model. We also recommend consideration be given to degradation of products as mentioned in our response to question 1 (section 3.4)
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.	We agree
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?	Yes, but we recommend the ability to input custom values as well for unique circumstances, e.g. the user should be shown the default prescribed values but have the option to over-ride them if the situation requires it. There should not be many instances were the prescribed values are not used. Implementing this is more to capture those not following those values. As the DER register represents a large change to industry and individual processes and requirements for various parties within the 'information stream', e.g. installers, solar retailers, NSPs, etc, it's a good approach to take a 'softer' stance when first implementing the register, i.e. allow a little wiggle room in things like data variables at first and then gradually tighten them up and lock them down after a few months in operation. This iterative process allows for industry to adopt the major requirements quickly and correctly, but doesn't bog them down in perfecting smaller parts of the process that may not necessarily affect the spirit of the DER register and it's overall goals.

Questions		Feedback
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?	We have no comment regarding this question at this time.
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.	Yes, noting that we should have a 'swap' solution in place for solar products like panels and inverters (i.e. take data regarding panels and inverters from manufacturer data in first instance where available, but if the product provider is a new entrant into the Australian market and isn't connected with any data source yet, we take 'second best' data from the Clean Energy Council's approved lists.
7	Are there any other requirements that have not been considered? Why are these important? Which table are they relevant to?	We would also recommend the capture of photographic evidence of the installation and serial numbers of the products – noting that one requirement of the register is the provision of data to Emergency Services personnel, i.e. first responders, having a photo showing the battery installed in the garage on the side of the house during a fire or emergency event would help them react and plan faster during dispatch. It could also be useful in the case of a dispute regarding a customer and an NSP regarding installation of embedded generation that was not applied for according to the NSP's process or which did not meet the conditions of a grid connection offer provided by the NSP. It is assumed that during the dispute process, controls would need to be enacted regarding privacy and sharing of information, but having sufficient details, including photographs of the original installation and configuration, could be helpful to the NSP or any external tribunal if the matter were to move to any kind of arbitration process.
8	In terms of the examples given, are their other DER installation configurations that AEMO should consider?	We have no further comment to make on this topic at this time.
9	Are there any other relevant issues that have not been considered?	We have no further comment to make on this topic at this time.
General Comments		

Questions		Feedback
1	Do you have any other comments?	We welcome the opportunity to provide feedback to industry and AEMO regarding the DER register and hope to continue to share our insights and experiences gained working under the SRES and programmes like the Solar Panel Validation Initiative, which involve data capture, validation and submission.