7 March 2019

Locked Bag 14051
Melbourne City Mail Centre
Victoria 8001 Australia
T: 1300 360 795
www.ausnetservices.com.au

DER Register Team
Australian Energy Market Operator
Level 22, 530 Collins Street
Melbourne VIC 3000

Dear members of the DER Register team at AEMO,

**Issues Paper on First Stage of Consultation of DER Register**

The Distributed Energy Resources (DER) Register Rule Change established a framework for sharing small-scale DER information, and potentially could improve electricity forecasting and could benefit all customers through better system management.

AusNet Services broadly supports establishing an efficient mechanism for collecting and sharing DER related technical information. It is important collection framework specified in the DER register guideline is efficient and produces the best possible outcomes for customers and their authorised agents.

The National Electricity Rules (NER) assign the responsibility for the collection of DER register information from customers and their authorised agent (retailer or installer) to Network Service Providers (NSPs). The NSP must provide this collected DER generation information to AEMO and the manner set out in the DER Guideline.

Notwithstanding these obligations, the DER Register issues paper and DER Register Collection papers propose processes whereby parties other than NSPs would be collecting DER register information. This has the potential to duplicate the NSPs' existing processes for collecting DER information for new or altered connections, in accordance with NER 3.7E(d).

Information collection where the customer or their authorised agent provides the same information via multiple collection processes and device apps creates a poor customer service experience and significant issues with managing an authoritative source of data. Such issues include data integrity, anomalies and duplication which will contribute to complex system builds as well as inefficient back office processes. It should be noted that the NER 3.7E(h)(1) requires that AEMO's DER Guideline must specify how NSPs provide DER register information without subjecting NSPs to unreasonable costs to maintain compliance.

We believe there is better a process for incorporating NSP information and specify how NSPs can provide validated DER register data to AEMO. It would involve establishing a mechanism whereby validation of data, such as serial numbers, can be achieved at point of collection whilst maintaining the NSP as source of DER information and orchestration of updates to the DER register. Attached in Appendix A is our recommended process showing more cooperative DER register collection.

Leveraging the NSPs data processes has added benefit for AEMO of avoiding the disclosure of confidential or personal information, where authorised agents are updating DER device. In this complex scenario, the authorised agent may require the existing DER register information in order to make an accurate amendment. NSPs have established processes and are better placed to provide the authorised agent with this necessary information in similar manner to other data requests made in accord with NER 7.14.

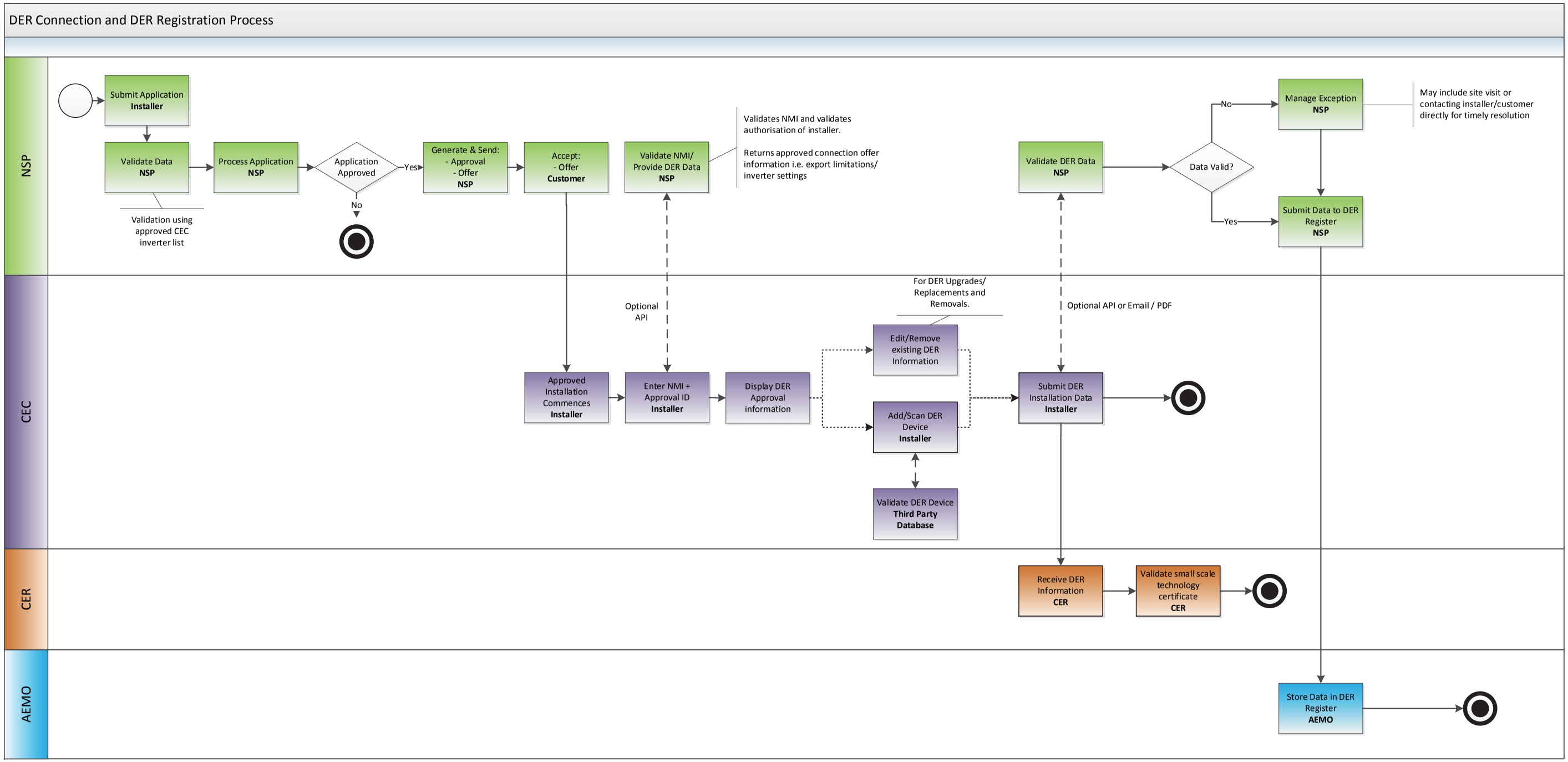
The Appendix B provides a more detailed response to the questions posed by the AEMO in its issues paper.

If you have any queries on our submission, please do not hesitate to contact Justin Betlehem on 03 9695 6288.

Yours sincerely,

Clinton Rodda
**General Manager, Electricity Distribution**

# Appendix A: AusNet Services recommended DER Degister process



## Appendix B:

# 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 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: AusNet Service

Contact name: Justin Betlehem

Contact details (email / phone): justin.betlehem@ausnetservices.com.au; T 03 96956288 I M: 0433691111

| Questions | | Feedback |
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| Section 3.1 – Information requirements | | |
| 1 | Do you agree with the suggested format and method of data submission? | We support the AEMC's DER Register rule change whereby distributors are required to provide validated DER information to AEMO. This is in alignment with the investment that many distributors have already made in systems tailored for optimal user experience (UX) to collect DER register information through with connection alteration processes.<br>We suggest the following high level approach:<br>DNSP collects DER information as authoritative source while facilitating choice of approved installer applications:<br>- DNSPs provide approval and job information (including approval ID) to application.<br>- Approved installer requires to input Approval ID and NMI to access information on application about the specific job to prevent security issues.<br>- Information is prepopulated on application from information provided |

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| | | from DNSP<br>- Approved installer can add/modify devices and submit information to DNSP for validation.<br>- DNSP validates submission against connection agreement and performs any data corrections/follow-ups and site visits.<br>- DNSP submits validated information to AEMO<br>This improves on AEMOs proposed process as the DNSP is best placed to provide NMI and Connection Agreement information as well as following up with fields visits where data exceptions are found. It allows better visibility of authorised installers and DNSPs are motivated to ensure correct installations methods by correct approved personal, as well as escalation where this does not occur, or report recurrent non-compliant installers. Further to the above points, DNSPs are responsible for the data and managing data exceptions therefore it makes sense that the logic to detect data exceptions lives with the DNSP, not a third party. |
| 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? | There could be adequate access arrangements where the DNSP opens the connection application process through a validation process to allow for better repopulation of information and ease of use for RECs to scan inverter information. Our position is that this information is provided to DNSPs, as the DNSP is the authoritative source of information for the DER register. |
| 3 | Are there any risks associated with the different submission frequency between the *DER generation information* and *DSP information*? | There is a risk that data could become misaligned as the year progresses, however there is no impact for this risk to NSPs as this information is held up to date at all times as part of our existing obligations and updated for operational purposes. |
| 4 | What is an alternate approach to the frequency of data submission? How would this be implemented? | DSPI has significant overlap with existing information held within AEMO's DER Register and MSATS. An alternative approach is superseding DSPI requirements (for DNSP requirements only) with that of the DER register, as between DER register and MSATS the information requirements can already |

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| | | be met. |
| 5 | Are there any other relevant issues that have not been considered? | DER installers would need to obtain DER Register information in order to change or decommission DER devices at a site. However, privacy and confidentiality laws regulate the provision of this information to authorised agents (installers). It is likely that existing site information will need to be provided to the DER installer to contextualise the change so that the correct assets are modified, particularly where DER register data assigns a relationship between devices and connection data i.e. AC connection to device.<br><br>If DNSPs maintain connection processes and provide AEMO with DER information, then we have an opportunity to manage these authorised data requests.<br><br>Legacy sites may not contain all DER register generation information. This will impact upgrade or replacement scenarios with AEMOs proposed data structure. Only the DNSP is authorised to provide existing DER register data to the customer's authorised representative.<br><br>If it was provided via the DER register adequate measures must be established to ensure only the customer authorised installers has access to the information. |
| Section 3.2 – DER register storage | | |
| 1 | Are there any issues associated with the separate storage of *DSP information* and *DER generation information*? | Separate storage of DSP information and DER register generation creates the issue of alignment, and unclear responsibilities of resolving data quality issues. |
| 2 | Are there any other relevant issues that have not been considered? | Why do we need to submit battery information for DER Register, then again for DSPI submissions? As a principle the removal of duplicated processes is key to an efficient industry. Unclear on benefit of separate DSPI submission where the same information is available through DER Register and MSATS. |

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| Section 3.3 – DER register information access to NSPs | | |
| 1 | What *regulatory obligations or requirement* do NSPs intend to use DER register data for? | We plan to fulfil our obligations to publish DER information in line with AEMOs DER Register guideline, when published. |
| 2 | Do you have a preferred process for accessing *DER register information*? | To effectively manage a network, DNSPs should have this information already, so access to the DER register information does not provide a clear benefit over existing processes. |
| 2a | Is existing NMI discovery (adding in DER) useful? | DNSPs will require reports and interfaces to view DER register information held in AEMO's systems. NMI discovery may form one mechanism as part of a suite of interfaces and reports to view this AEMO's DER register information. |
| 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? | DNSPs will require reports and interfaces to view DER register information held in AEMO's systems. Updated report of C1, C4 and C7 may form one mechanism as part of a suite of interfaces and reports to view this AEMO's DER register information. |
| 2c | What are your views on using an API to develop custom reports? | DNSPs will require reports and interfaces to view DER register information held in AEMO's systems. An API may form one mechanism as part of a suite of interfaces and reports to view this AEMO's DER register information. |
| 3 | Do existing C1, C4 and C7 reports need to be provided if an API is provided? | We would support the establishment of API that allows registered participants to report on DER register information and all other relevant information in MSATS. |
| 4 | Are there any other relevant issues that have not been considered? | |
| 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? | |
| 2 | Is aggregation at the post code level suitable? If not, what is an appropriate aggregation variable and why? | Aggregation reports at the post code level are of no benefit for NSPs. |

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| 3 | Do you agree with monthly updating of the *DER register report*? Why/ why not? | |
| 4 | Are there any other relevant issues that have not been considered? | |
| 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 | AusNet Services considers the following costs and impacts are applicable:<br>**Upfront**<br>- Updates to Model Standing Offers (MSOs) and Connection Agreements.<br>- Updates to CATS transactions and storage internally i.e. accommodating new fields.<br>- Changes to existing DER approval processes to accommodate new information requirements.<br>- Preparation activities for bulk upload of historical DER information.<br>**Ongoing**<br>Validation of data in the case of DER installers submitting DER information directly to AEMO's DER Register will result in costly exception management. DNSPs are not in control of the validation logic or the method of exception management which is not efficient for the people which need to correct this information.<br>Where data is found to be incorrect, where AEMO deems that further action is required, Victorian DNSPs are within their power under the electricity distribution code (11.2.2 Non-compliance of Code) to take enforcement action (including disconnecting the generating unit). This is difficult to achieve as it requires direct contact with the customer and installers. In relation to DER Register, this is better handled directly out of DNSP systems internally systems to match up with the connection agreements. If AEMO directly collects DER |

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| | | information this process become more onerous as the data will not link with connection agreements and timely as reports are not likely to be given to DNSPs daily. |
| 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 | AEMO's proposal in the issues paper has not described the process to an adequate level for AusNet Services to provide costs and impacts. |
| 2 | Do you agree with the proposed data requirements? Why/ why not? | We seek justification on why AEMO requires each of these fields. |
| 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. | Maintaining the AC connection to DER device mapping would be onerous and difficult to maintain in the long term.<br><br>As this is a new obligation, many existing records as part of the bulk upload will not have this data structure mapped, therefore the benefit of providing this relationship mapping going forward is questionable. In addition, it is much more onerous on DER installers and customers to update the DER register where internal wiring configurations changes alter over time. Given the reasons above our belief that is that the relationship data is unlikely to be well maintained long term, where it had questionable benefits to begin with.<br><br>Option B included in the minutes of the DNSP DER Register workshop is preferable as data is maintained on the acquisition, upgrade or removal of DER devices and is in line with what DNSPs and RECs may have reasonable visibility over without imposing invasive measures on the customer to recover the backlog of relationship data. |
| 4 | Should data variables that protection, Over-frequency protection, Undervoltage protection, have default values prescribed by the AS4777 standards (e.g. Under-frequency Overvoltage protection, etc) be requested as discrete inputs? Why/ why not? | We consider AS/NZS 4777 inverters should be assigned default values for:<br>Under frequency protection, Over-frequency protection, Undervoltage protection. |

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| 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? | Non-inverter DER must abide with more stringent protection requirements, however it is not appropriate to characterise these modes with AS4777 functionality. |
| 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. | NSPs are the authorised provider of DER information and it is important to avoid data collection duplication, streamline installer data input and ensure exception management is run efficiently. Our proposed process addresses the above issues. |
| 7 | Are there any other requirements that have not been considered? Why are these important? Which table are they relevant to? | Standby/back-up generators found in large buildings or hospitals should be collected as in the majority of cases this would be considered embedded generation under 30MW. Where these generators are exercised, a significant amount of energy is imported onto the grid. Tracking these DER register sites would be beneficial to DNSPs to better manage their network. |
| 8 | In terms of the examples given, are their other DER installation configurations that AEMO should consider? | |
| 9 | Are there any other relevant issues that have not been considered? | Model B with NMI 1:1 ratio to DER installation would be the preferred data model. Having multiple aggregates of DER does not make sense under the examples provided.<br>For a valid connection agreement to exist the NMI which is installing DER must apply for a connection agreement to the network. Where a child may have a connection agreement with the parent, there is no connection agreement to reflect any export which is sent from parent to DNSP. If the intent of DER Register is to better monitor DER export across the NEM, this scenario should also be considered. |
| General Comments | | |
| 1 | Do you have any other comments? | We seek to understand AEMO's plans of securing the provision of DER information to authorised agents for the purpose of facilitating DER upgrades/removals and prevent DER data from being exploited by |

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| | | non-authorised parties. |