Proposal for a Register of Distributed Energy Resources – A Networks Perspective

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Energy Networks Australia Members Support the Register

» Energy Networks Australia supports the proposal for the development of a register of distributed energy resources (DER) in Australia, including:

1. Energy Networks Australia is supportive of the recommendation that the **Australian Energy Market Operator (AEMO)** be the host of the DER register.
   - However, moving forward it would be good to consider how the register fits within the wider data framework identified in the Finkel review.

2. Energy Networks Australia is also generally supportive of distribution network service providers (DNSPs) collecting information about DER connected to their network, and providing this information to AEMO as required.
   - However, it should be noted that there are some issues around obligations that need to be addressed, including:
     - **Alignment of information collection with connection agreements,** *however current connections agreement processes aer only capturing about 30 per cent of battery installations*;
     - **Compliance** of installers in providing the information required;
     - **Legacy issues** - DER already connected to the system.

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1. Alignment of Information - National Connection Guidelines

» **Aim:** to help streamline technical requirements for connecting DER across NSPs and making it easier for proponents to connect.

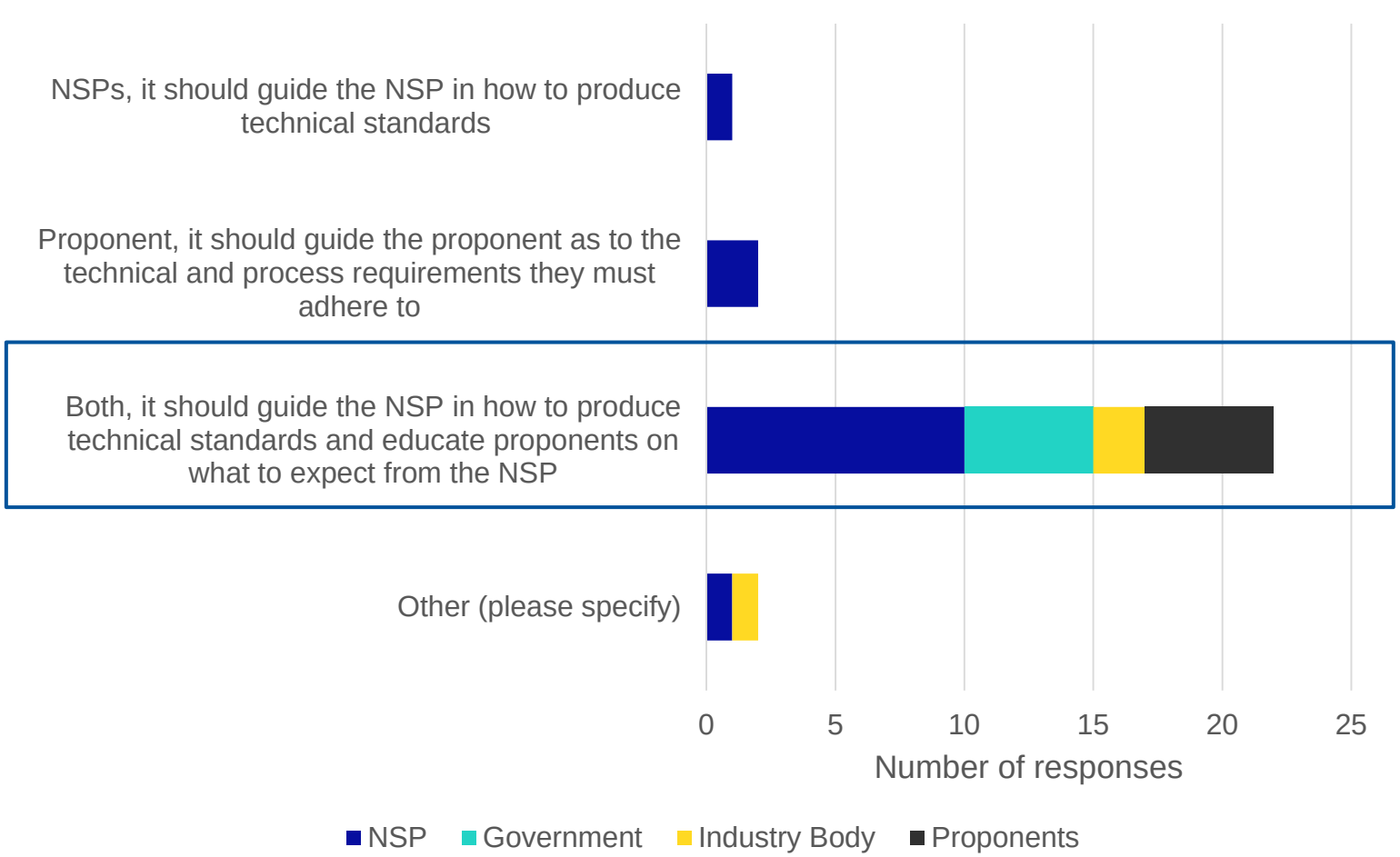
» **Reason:** Current processes have been identified as:

- Being **onerous**
- Being **inconsistent**
- Lack of **clarity** (i.e. technical requirements proponents are required to provide)

» **Outputs:**

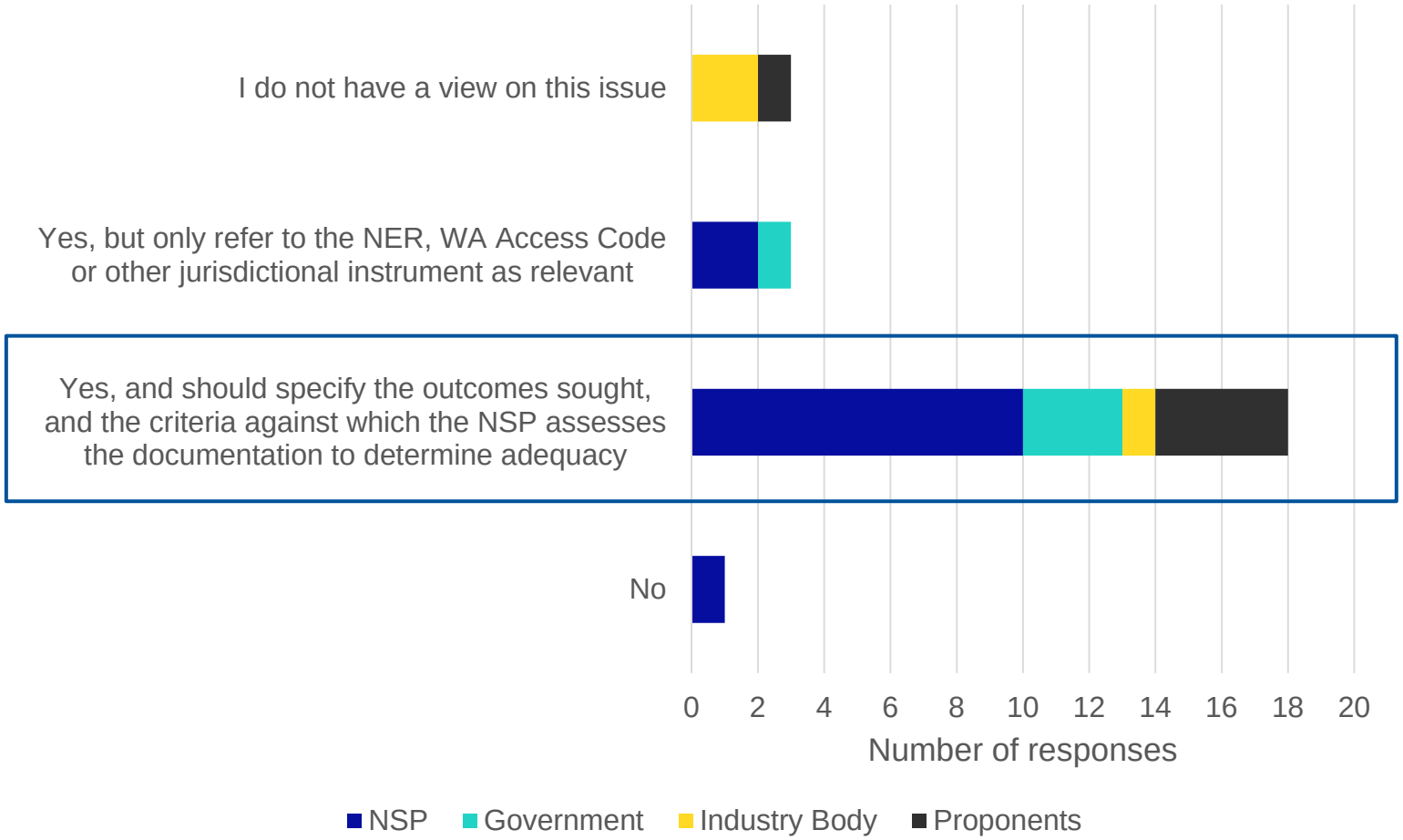
1. **Framework and Principles Guideline -** Specifies the number, scope and structure of the subsequent technical guidelines which all NSPs should adopt
2. **Technical Guidelines -** Specifies the technical requirements and/or technical outcomes to be achieved for each connection type which NSPs should incorporate in their documents

Who should be the main audience for the Framework and Principles Guideline?



1. *"Option 3 above, but also guide proponents on their obligations when connecting (e.g. maintain safe and operable installations)"* – Ausgrid
2. *"The AEMC is of the view that that the guideline should guide both the NSP and proponents, but suggests that there may be other audiences, including AEMO (given its involvement in the setting of generator technical performance standards), jurisdictional safety regulators and governments."* – AEMC

Should the requirements for documentation be included in all technical guidelines (specifying the information to be provided by proponents at all stages)?



1. *"This is reasonably well covered in the rules. NSP are required to publish sample agreements. "* - Ausgrid
2. *"The guidelines could aim to give proponents a good view of the information they will need to complete an application."* – Cth Department of the Environment and Energy
3. *"This would include commissioning plans, compliance monitoring and joint operating protocols between the generator and the DNSP."* - SA Power Networks

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1	**Introduction**	
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1.3	Who should read these guidelines?	Slide 12
1.4	Relationship to other documents	Slide 17 (AER comment)
2	**Connecting to the network**	
2.1	NSP obligations	Slide 12
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3	**Connection Types**	Slide 18-21
3.1	Decision tree	Slide 34
3.2	Description by type	Slide 18-21

Section		Relevant survey question
4	**Overview of connection process**	Slide 14
4.1	Overview (figure)	
4.2	Part 5.3 (and WA equivalent)	Slide 17 (Ausgrid comment)
4.3	Part 5.3A (and WA equivalent)	Slide 17 (Ausgrid comment)
4.4	Part 5A (and WA equivalent)	Slide 17 (Ausgrid comment)
4.5	Treatment of connection applications at the same network location (queuing policy)	Slide 15
4.6	Connection charges	Slide 14
5	**Technical guidelines**	
5.1	Technical requirements (sets out structure of technical guidelines to be adopted by NSPs by connection type)	Slide 22-24
6	**Frequency of review**	Slide 33

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Proposed connection types

- **Small scale (inverter based)**
  - Basic micro-embedded generators < 30kW (10kW per phase)
- **Mid-scale (typically LV connected, up to 1.5MW)**
  - Standard embedded generators 30kW to 1.5MW meeting standard technical requirements
  - Negotiated embedded generators up to 1.5MW not meeting standard technical requirements (including small non-inverter based)
- **Large scale (typically HV connected, > 1.5MW and < 5MW)**
  - Standard embedded generators meeting standard technical requirements
  - Negotiated embedded generators not meeting standard technical requirements
- **Registered (> 5MW):**
  - Registered (distribution connected) generators
  - Registered (transmission connected) generators
- **Grid-scale battery storage**

Technical Guideline

Technical Guideline

Technical Guideline

TBD

TBD

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Next Steps

1. Collate comments by 27th March 2018
2. Drafting of Framework and Principles guideline by mid to late April 2018
3. Testing late April 2018 (date to be agreed)
4. Finalise and publish mid to late May 2018
5. Commence work on First of the Technical Guidelines in June 2018

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2. Compliance

- Making provision of data by networks mandatory without putting any obligations on the installers or owners of DER would be unworkable

- Only possible if compliance with connection agreement processes can be assured.

- **Requires mechanisms** that:
  - *Incentivise* information provision ($); and/or
  - *Penalise* installers who do not provide information (i.e. mandate a installer accreditation process - within the Electrotechnology National Training package (UEE11). Lose accreditation if fail to provide required information

Thank You!

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