



COAG
Energy Council

ENERGY SECURITY BOARD GOVERNANCE OF DER TECHNICAL STANDARDS Consultation Paper

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CONTENTS

EXECUTIVE SUMMARY	1
1. ABOUT THIS CONSULTATION PAPER	1
1. PURPOSE OF THIS CONSULTATION PAPER	1
2. RELATED DER TECHNICAL STANDARDS CONSULTATION ACTIVITIES	1
3. STRUCTURE OF THIS CONSULTATION PAPER	3
4. CONSULTATION PROCESS AND SUBMISSIONS	3
2. CONTEXT FOR DER STANDARDS GOVERNANCE REFORM.....	4
2.1 THE SCOPE AND IMPORTANCE OF DER TECHNICAL STANDARDS.....	4
2.2 THE SAPERE/CUTLERMERZ REVIEW OF GOVERNANCE OF DER TECHNICAL STANDARDS	4
3. LEGAL FRAMEWORK FOR A NEW COORDINATING GOVERNANCE STRUCTURE	7
3.1 RELEVANT LEGISLATION AND AUTHORITIES OF THE CONVENING BODY.....	7
3.2 THE AEMC AS THE CONVENING BODY	7
4. FUNCTIONS OF THE DER STANDARDS GOVERNANCE COMMITTEE	8
4.1 SETTING A VISION FOR DER TECHNICAL STANDARDS DEVELOPMENT	8
4.2 DER TECHNICAL STANDARDS PRIORITISATION AND WORK PROGRAM DEVELOPMENT	8
4.3 ADVISORY OR DETERMINATIVE IN SETTING STANDARDS.....	9
4.4 LOCATION OF DER TECHNICAL STANDARDS	10
4.5 PROCESS FOR REVIEW AND UPDATING THE DER TECHNICAL STANDARDS	10
4.6 COMPLIANCE AND ENFORCEMENT OF DER TECHNICAL STANDARDS	11
4.7 ADVISORY ROLE	12
5. THE NATURE AND STRUCTURE OF THE DER STANDARDS GOVERNANCE COMMITTEE	13
5.1 RESOURCING.....	13
5.2 ROLE OF THE CHAIR/CO-CHAIRS	13
5.3 COMMITTEE MEMBERS.....	13
5.4 SELECTION PROCESS FOR THE CHAIR AND MEMBERS.....	14
5.5 DECISION MAKING ON STANDARDS	14
5.6 MONITORING AND REVIEW OF THE COMMITTEE	14
ABBREVIATIONS AND DEFINED TERMS.....	16

EXECUTIVE SUMMARY

Distributed Energy Resources (DER) in Australia currently include millions of distributed air conditioners, hot water systems, pool pumps and an increasing number of other large appliances (load which is or could be flexible), over 2.2 million rooftop photovoltaic (PV) systems, a few thousand small diesel generators and over 24,000 distributed batteries. The transition of the Australian vehicle fleet to electric vehicles will also raise challenges and opportunities for the delivery of energy services.

Given the pace of DER deployment, it is important that common DER technical standards for appliances, connections and communications are agreed and implemented in a timely fashion, while ensuring that there is no lock-in of current technology in this rapidly developing field.

DER technical standards influence outcomes for the affordability, reliability and security of both the shared power system and stand-alone power systems (SAPS). Effective and appropriate DER connections and communications standards, and associated practices and protocols, form a platform for technical and market integration to ensure that DER connections and associated goods and services are effective and efficient for system security, distribution network operation and a range of other functions.

Sapere and CutlerMerz jointly reviewed existing and potential governance arrangements for DER technical standards and concluded there was a need for new governance arrangements to meet ESB's DER integration objective, to 'optimise the benefits of DER investment for all energy system users'.

This paper proposes new coordinating governance arrangements through the creation of a DER Standards Governance Committee under the National Electricity Rules (NER), convened under the Australian Energy Market Commission (AEMC).

It is proposed that the DER Standards Governance Committee would be responsible for:

1. setting a vision for DER technical standards;
2. developing a technical standards work program;
3. monitoring, reviewing and setting DER technical standards;
4. considering issues related to compliance and enforcement of standards in their development;
and
5. providing advice on standards and undertaking related reviews.

The DER technical standards would be designed or chosen to support electrical system security, distribution network management and affordability for consumers, including through the sale of DER services.

The DER Standards Governance Committee would determine DER technical standards in a comparable way to the Reliability Panel sets reliability standards. The standards themselves would likely need to be developed by technical expert sub-committees, either established by the Committee or through linkages to existing Standards Australia sub-committees or other bodies. Standards development will be managed to enable full stakeholder engagement whilst keeping pace with the evolving technical needs for DER hardware and software.

It is vitally important that the minimum technical standards are nationally consistent, recognising that some jurisdictions or Distribution Network Service Providers (DNSPs) will need to set additional requirements for their circumstances. The governance process therefore needs to include input from a broad range of stakeholders, including some from outside the NEM.

The Committee is to be comprised of members who represent a range of participants in the national electricity market, including consumer groups, DER manufacturers, network businesses, market aggregators, Standards Australia and the energy market institutions.

1. About this consultation paper

1. Purpose of this consultation paper

The Energy Security Board (ESB) has prepared this document to provide information about and invite feedback on proposed new arrangements for the governance of Distributed Energy Resources (DER) technical standards.

DER technical standards are needed to support electrical system security, distribution network management and affordability for consumers. New standards are required to maintain security while accommodating increasing levels of DER. The capabilities of distributed energy resources will need to evolve over time to facilitate the sale of DER services both to networks and into energy and services markets.

The ESB commissioned a review into the governance of DER technical standards in December 2019. The [Sapere/CutlerMerz review](#) highlighted that, to date the governance of DER technical standards has been fragmented and uncoordinated. The pace of change in the governance area is slower than needed and more resources need to be dedicated to the setting of standards given the rapid deployment of DER, across the National Electricity Market (NEM) and the Wholesale Electricity Market (WEM) in Western Australia.

In March 2020, the COAG Energy Council (Council) agreed to implement measures to improve the governance of DER technical standards and develop new coordinating arrangements for DER technical standards. The ESB will develop recommendations in consultation with stakeholders and provide recommendations to Council for approval in October 2020.

The proposed arrangements for the governance of DER technical standards will create structure and processes that supports the planning for, visioning of, development, enforcement and compliance of DER technical standards. A new Governance Committee is proposed to ensure that the development of DER technical standards is coordinated to meet electrical system security requirements, support distribution network management and provide long-term affordability and choice for consumers, including through the enablement of DER services and that grid management standards also evolve to accommodate the increasing levels of DER.

2. Related DER technical standards consultation activities

There are three related activities currently underway to improve DER technical standards:

1. The development of the initial minimum DER technical standards by Australian Energy Market Operator (AEMO).
2. The associated Australian Energy Market Commission (AEMC) process to assess the rule change request put forward by AEMO to enable the enacting of these initial minimum DER technical standards.
3. The development of new governance arrangements for the DER technical standards (the subject of this consultation paper).

AEMO has been tasked with developing initial minimum DER technical standards focused on needed updates to inverter standards to ensure system security, the development of communications, data and control functionality and cyber-security standards. The initial standards will build on the work of AEMO through the Distributed Energy Integration Program (DEIP) 'Standards, Data and Interoperability' working group and be finalised in consultation with all stakeholders. The initial standards are being canvassed in an AEMO consultation paper to be released in July.

AEMO has submitted a rule change request to the AEMC’s rule change process to implement these initial, national DER technical standards in the National Electricity Rules (NER). AEMC released a consultation paper on this rule change on 24 June.

A summary of the related DER standards consultation activities is provided in **Table 1**. It is intended for this consultation process for governance arrangements for the DER technical standards to occur in parallel with the other current activities.

Table 1: Current work on technical standards

	RULE CHANGE REQUEST	INITIAL STANDARD	GOVERNANCE
Who?	AEMC	AEMO	ESB
What?	AEMO submitted a rule change request to oblige it to create a subordinate instrument for a DER minimum technical standard and to also create a definition of DER relevant to the standard.	AEMO is currently undertaking consultation to set an initial DER technical standard to be implemented if a rule is made.	The COAG Energy Council has tasked the ESB with preparing a proposal for a longer-term DER technical standards governance regime.
Why?	Due to increasing rooftop solar energy, when combined with periods of low demand, limitations have begun to be reached in distribution systems related to managing voltages, thermal capacity and protection coordination. AEMO has stated that it currently has limited scope to manage these risks.	If a rule is made through this process, AEMO must set an initial DER minimum technical standard to address the purported critical areas of high DER penetration and risk.	The ESB is developing a long-term governance framework for DER technical standards to involve industry participants in maintaining and amending the standards to support the optimisation of DER services for all energy system users
How?	The new rule, if made, will oblige AEMO to make a subordinate instrument to establish DER minimum technical standards.	If made, the new standard will be given effect by the new rule.	A longer-term governance framework could potentially replace this rule, if made, in the future.
When?	Under the current schedule for this rule change process, a draft rule is scheduled to be published in October and a final rule in December 2020.	AEMO’s first stage issues paper for consultation is expected to be released by July 2020. The draft initial standard and second stage notice are expected in September 2020.	A second round of consultation on the details of the new governance arrangements will take place in August. A proposed framework is due to COAG Energy Council by October 2020.

3. Structure of this consultation paper

This consultation paper is structured as follows:

- Section 2 provides the context for the DER governance reform
- Section 3 discusses the proposed functions of the DER Standards Governance Committee
- Section 4 discusses the legal framework for a new coordinating governance structure
- Section 5 outlines the DER Standards Governance Committee operations

4. Consultation process and submissions

The ESB will hold a webinar on this consultation paper in July. For more information and to register for the webinar, please go to: <http://coagenergycouncil.gov.au/energy-security-board/distributed-energy-resources>.

The ESB invites comments from interested parties on this consultation paper by 28 July 2020. Please respond to the 'questions for stakeholders' in this paper in your submission.

Submission close date	28 July 2020
Lodgement details	Email to: info@esb.org.au
Format of submission document	Must be in Word
Naming of submission document	[Company Name] Response to ESB Governance of DER Technical Standards Consultation Paper
Publications	Submissions will be published on the COAG Energy Council's website, following a review for claims of confidentiality

2. Context for DER standards governance reform

2.1 The scope and importance of DER technical standards

Australians are investing in DER systems at unprecedented rates, with rooftop solar installations exceeding 10 gigawatts of installed capacity in 2019 and another 350,000 rooftop systems and 3 gigawatts expected to be added in 2020.

The market operator, the distribution networks and the DER owners have the potential to all benefit from the integration of DER into existing and emerging markets which offer additional revenue for network services including demand response. A critical mass of DER, under active management, may avoid the cost of dispatching or investing in utility scale generation or energy storage to provide system security services (e.g. frequency control reserves, voltage control). This would then provide benefits to all consumers.

While DER can deliver benefits to many parts of the electricity system, without appropriate technical standards, widespread uptake of some forms of DER could also impact on the secure operation of the electricity system and distribution networks.

AEMO has identified the aggregated behaviour of DER as an emerging risk to system security, with its ability to affect outcomes during power system disturbances. Additionally, distribution networks can be impacted by voltage issues enhanced by solar PV exports and can reach thermal constraints on networks due to DER connections.

The types of challenges resulting from increasing levels of DER connections include:

- the requirement to limit exports or have zero export for DER;
- constraints on existing DER customers exporting due to high voltages or other system challenges;
- electricity price increases if distribution networks are required to invest to address network challenges; and
- an impact on emissions reductions where DER export is constrained due to network challenges.

DER technical standards should assist in mitigating challenges by providing for a minimum level of predictable performance under network constraints or during power system disturbances. DER technical standards, in the area of communication, data, cybersecurity, and demand response standards, are necessary for the effective, efficient and secure operation of active DER markets.

In addition, the ESB expects there will be a need to revise existing or new standards and protocols for grid management, such as Advanced Distribution Management Systems.

The governance of DER technical standards is necessary to support effective DER standards development, implementation and compliance and enforcement.

2.2 The Sapere/CutlerMerz review of governance of DER technical standards

The Sapere/CutlerMerz review (the Review) found that the governance of DER technical standards is fragmented, lacking clarity of roles and coordination. In addition, the resources dedicated to the setting of standards is inadequate, and the pace of change is slower than needed given the rapid deployment of DER. The result is that DER systems deployed today are not necessarily able to deliver the performance levels and services required to support system security, efficient and effective distribution network management and the optimisation of DER benefits for all electricity system users.

The Review identified seven different existing governance arrangements for DER technical standards which are largely independent from one another and vary from voluntary to incentivised to mandatory:

1. Australian and international standards – developed under a formal process of expert sub-committees and stakeholder consultation but voluntary unless invoked in legislation, regulation or contracts;
2. Infrastructure providers - DNSPs – connection agreements which vary to meet local network conditions;
3. State based incentive/rebate schemes for DER – which include technical requirements;
4. Commonwealth incentive/rebate schemes, especially the Small-Scale Renewable Energy Scheme;
5. State based legislated requirements – State based electrical safety requiring mandatory compliance to Australian Standards;
6. Commonwealth based legislated requirements – Greenhouse and Energy Minimum Standards (GEMS) for product energy efficiency and efficiency labelling which includes recent requirements for mandatory AS/NZS 4755 compliance for active loads, and
7. Requirements for market participation - Virtual Power Plants (VPP) that aggregate and control DER are required to satisfy technical requirements to participate in the wholesale market.

The Review identified critical gaps and weaknesses in the current governance system, including:

- An overall lack of leadership and coordination and clear objective as to how DER technical standards should be governed.
- Weaknesses in the Standards Australia technical standards process in terms of speed, participation and decision making not being explicitly aligned with National Electricity Objective (NEO).
- Lack of harmonisation in network connection standards across DNSPs.
- Under-resourcing of compliance and enforcement activities, and gaps especially for non-safety related standards.

In relation to the above, ESB notes the historical context for development of standards across Australia and Pacific region (Australia and New Zealand standards).

Consultation undertaken through the Review found broad stakeholder support for reform. 79 per cent of stakeholders surveyed agreed or strongly agreed to the question, ‘Do you consider there is a case for changing the governance of DER technical standards to align with the needs of the current and future DER product and energy services markets?’.

The Review proposed four options to improve the governance of technical standards:

- Option 1: Maintain the status quo (implement quick wins only);
- Option 2: Modifications to the existing arrangements through targeted interventions such as additional resources;
- Option 3: The development of a new coordinating structure and processes; and
- Option 4: Wholesale reform including the centralisation of DER technical standards governance decision-making through a new body.

The Review recommended improving the governance system coordination (option 3). This option involves creating a new DER standards governance coordinating structure to provide clear leadership, and line of sight between a DER governance vision and continuing distributed governing of DER technical standards. This is proposed to be supported by a new performance monitoring framework, with improved monitoring and compliance arrangements to allow earlier detection and remedies for non-compliance.

Pursuing option 3 was recommended to tackle weakness in the existing DER technical standards governance system without requiring legislative change or the creation of a new structure. This paper sets out a proposal to implement option 3.

The Review also suggested an option 4: major reform of the governance for DER technical standards, centralised under a single national system rather than jurisdictional governance. As the scale of this change introduces risk and potential delays, and considering the urgent need identified by stakeholders for change in governance, this option is not recommended at this stage. However, it is possible that large scale overhaul of governance of DER technical standards could be considered in future, following review of the implementation of the DER Standards Governance Committee arrangements proposed here.

3. Legal framework for a new coordinating governance structure

3.1 Relevant legislation and authorities of the convening body

It is proposed a DER Standards Governance Committee is established to provide a governance structure that will allow for national coordination of technical standards. The Committee would be convened under the AEMC within the National Electricity Law (NEL). While it could be convened under existing powers by the AEMC (Section 39 of the NEL) or AEMO (Section 49 of the NEL), it would likely be established under specific Rules in the NER as this would allow its appointment, operation and functions to be prescribed and its powers set out. The scope and detail of the Rules would need to be adequate to ensure its effective operation but provide for flexibility to evolve over time and to ensure that it's work does not become protracted and ineffective.

It is proposed the convening body of the Committee would have the following responsibilities:

- To provide the secretariat for the Committee;
- To appoint members to the Committee in accordance with the selection process; and
- To provide directives to the Committee to provide advice in relation to DER technical standards and their impact on support system security, distribution network management and the sale of DER services.

The convening body's role in approving and actioning the standards would be dependent upon a decision on the Committee's role and, in particular the extent to which the Committee was advisory or able to determine standards.

3.2 The AEMC as the convening body

Any of the market bodies could be the body convening the DER Standards Governance Committee and endorsing or approving standards. The selection of the most appropriate market body to undertake the role as convener then requires consideration of which body offers the best fit in terms of its existing skills, roles and functions.

The AEMC convenes the Reliability Panel and establishes working groups and advisory panels when undertaking reviews or Rule changes.

The Reliability Panel is a formally constituted committee to focus on determining standards required to deliver a secure, reliable and safe power system in the most efficient way in order to minimise costs for consumers. It also is responsible for reviews and Rule changes which lead to the development of the market. The DER technical standards can be expected to evolve to support market developments seeking to integrate DER into the NEM. The AEMC also conducts independent reviews and provides advice to governments on the development of electricity markets.

Given the broad objectives involved in setting technical standards for DER and the location of DER in the distribution network, AEMC is considered to be best placed as the over-arching rule maker in the NEM to convene the Committee.

Questions for Stakeholders

Q1. Do you support the proposal to establish a DER Standards Governance Committee under the National Electricity Rules? If not, what alternative would you suggest?

4. Functions of the DER Standards Governance Committee

It is proposed a DER Standards Governance Committee be established to provide a governance structure that will allow for national coordination of existing and new DER technical standards development processes.

It is proposed that the Committee comprises energy market institutions, industry and consumer representatives (see membership in the next section).

The DER Standards Governance Committee should be responsible for:

1. setting a vision for DER technical standards;
2. developing a technical standards work program;
3. monitoring, reviewing and setting DER technical standards,
4. considering issues related to compliance and enforcement of standards in their development;
and
5. providing advice on standards and undertaking related reviews.

4.1 Setting a vision for DER technical standards development

It is proposed that the Committee is responsible for establishing a strategic vision for DER technical standards development to optimise of DER benefits for all electricity system users, through support electrical system security, distribution network management and affordability for consumers, and the sale of DER services. As a Governance Committee established until the NER, it will need to prioritise the long-term interests of consumers, consistent with the NEO.

The purpose of the vision will be to provide stakeholders with a clear understanding of how the Governance Committee proposes to undertake its work to support DER integration into the NEM. The vision will set out the approach to DER technical standards development, especially how it will prioritise work and how it will engage stakeholders.

Underneath this vision, the Governance Committee will develop a series of principles to guide its work, especially in setting standards.

4.2 DER technical standards prioritisation and work program development

It is proposed that the Governance Committee be responsible for developing a work program for the development, update and monitoring of DER technical standards. This would include the following:

- Leadership, management and supervision of the standards work;
- Setting priorities for the technical work of standards development and updates;
- Supervising the timeliness of the work and taking the necessary corrective actions;
- Establishing and reviewing a technology roadmap to ensure timely investigation in new fields of technology;
- Ensuring compliance and enforcement is appropriately considered; and
- Monitoring and identifying emerging technologies and markets and initiating any necessary changes to the work program.

This work program will set a clear forward agenda while being flexible enough to keep pace with the evolving technical needs for DER hardware and software, including vital system security and distribution network operation needs.

In undertaking this work, the Committee would recognise and coordinate where appropriate with existing arrangements under the Clean Energy Council and the Clean Energy Regulator, which are respectively responsible for the certification of products and installers and the monitoring of systems installed under the Renewable Energy Target (RET). Similarly, processes used to implement new technologies by the DNSPs would be examined, including interconnection protocols, grid management systems, data collection and communications relevant to DER. Gaps in the existing processes will be identified, including the treatment of new product types and the monitoring of non-RET installations.

4.3 Advisory or determinative in setting standards

In undertaking this work, the Committee needs to have a formal role, providing a platform to incorporate the views of the broad range of stakeholders (including those outside the NEM) which have an important role to play in developing appropriate standards. The definition of the role of the Committee and its decision making powers could vary across the spectrum from being purely advisory to being able to directly determine standards.

An advisory DER Standards Governance Committee would provide advice to its convening body on matters of DER technical standards, either as requested or in response to a work program set by the Committee itself. The convening body would have statutory responsibility for making decisions on DER technical standards as advised by the Committee.

A determining DER Standards Governance Committee would determine DER technical standards in a comparable way to the Reliability Panel sets reliability standards. That is, the convening body would confer the power to make decisions on DER technical standards to the Committee. This could potentially be done through changes to the Rule as the National Electricity Law (NEL) provides the AEMC the power to make rules to confer functions or powers on, or leave any matter to be decided by a body established in accordance with the Rules.

A range of hybrid solutions could apply with, for example, the Committee making recommendations to the convening body which the convening body would need to action or provide specific reasons for not doing so. It is important that a broad range of stakeholders have confidence that the governance arrangements take full account of stakeholders' views. On the other hand, it is important that the Committee and its processes allow issues to be addressed in a timely manner and that accountabilities are not confused. It is also important that the Committee are transparent in their decision making.

The AEMC has powers under section 34 of the NEL to make Rules which:

(c) confer functions or powers on, or leave any matter or thing to be decided or determined by—

(i) the AER, the AEMC, AEMO or a jurisdictional regulator; or

(ii) the Reliability Panel or any other panel or committee established by the AEMC; or

(iii) any other body established, or person appointed, in accordance with the Rules;

This would allow a Committee with specific functions or powers as prescribed in the Rules. Alternately the AEMC has a specific power to establish committees and panels under Section 39 of the NEL.

Given the importance of having decisions made on DER technical standards by experts who understand the nature of the technology, the needs of the system, distribution networks and DER services, the importance of DER standards for the safe secure operation of electricity systems and the need for efficient decision-making, it is recommended that the Governance Committee have more than an advisory role.

The standards themselves would likely need to be developed by technical expert sub-committees, either or by established by the Committee or through linkages to existing Standards Australia sub-committees or other bodies. The decision as to when the Committee needs to initiate the development of a new standard and when it is prudent to adopt an external body of work will be made by the Committee,

ensuring this is done in the most efficient and effective way depending on the circumstances of the particular standard in question.

ESB also notes while national consistency is the goal, local conditions will need to be taken into appropriate account in any process of harmonisation of DER technical standards across jurisdictions.

Similarly, in an international commodity market like DER products, it is important to ensure standards are appropriate across as many countries as possible. Australia has led the field in many aspects of PV and inverter standards development, so that ANZ standards have been used as the basis for international and other country standards. Australia is also leading the world in DER penetration levels, so standards developed here for connection, integration and communications may form the basis for future international standards. Nevertheless, where international efforts are already underway to develop Guidelines and standards, Australian standards will need to be consistent, so as to allow as wide a range of new products as possible to be used in the Australian market as they emerge.

4.4 Location of DER technical standards

The AEMC is currently assessing a rule change request to put in place initial minimum technical standards, in particular to meet AEMO's system security needs.

The ESB is developing a governance model developed through this process and will recommend a preferred model to Ministers for approval later this year. Following endorsement by Ministers, the new governance model will be implemented through an AEMC rule change process. This will replace any process put in place to implement the initial minimum standards. It is envisaged that the Governance Committee will have responsibility for all standard setting, including updating those initial standards, as needed.

There is still the matter of where the technical standards might best sit under the National Electricity Law (NEL). The standards could be located:

- In the NER and updated through a rule change request or;
- In a subsidiary instrument under the rules (recommended):
 - updated through a decision of the Governance Committee conveyed to the AEMC (determinative); or
 - updated by the AEMC on the advice of the Governance Committee (the advisory model).

As with current standards implementation, an interim Guidelines phase could be used to trial new standards and to prevent lock-in of existing approaches as technologies develop. This is particularly important in an emerging area like DER, where many products are competing to establish their protocols are the industry standard.

4.5 Process for review and updating the DER Technical Standards

The Governance Committee will develop policies and procedures around:

- The frequency of review of DER technical standards
- Reviewing and updating the standards
- The use of modelling, including cost-benefit analysis or other methods for assessing the efficiency and effectiveness of proposed standards
- Public consultation
- Monitoring and amending compliance and enforcement of DER Technical Standards

- Any other matters relevant to its objectives.

4.6 Compliance and enforcement of DER technical standards

The pre-existing regulatory regimes or other enforcement mechanisms for DER technical standards are listed by network type below:

Network Type	Current Compliance instrument
NEM & Non-NEM connected network and/or SAPS	State-based legislative technical and safety requirements
NEM connected network	DNISP Connection agreement (model standing offer, standard contract or negotiated contract)
Non-NEM connected network	DNISP Connection agreement
SAPS	Consumer Code through customer contract
SAPS	DNISP Connection agreement
NEM & Non-NEM connected network and SAPS	Australian Standards for Regulatory Compliance Mark for DER products
NEM & Non-NEM connected network and/or SAPS	State or commonwealth incentive/rebate schemes

It is proposed the Committee consider compliance and enforcement arrangements in setting standards to allow earlier detection and remedies for non-compliance. As many of the existing compliance processes operate under the RET legislation and as an increasing number of DER systems are installed without claiming renewable energy certificates, there is a need to develop a wider compliance monitoring system.

This framework will draw on the work already being undertaken through the Inter-Jurisdictional Working Group on Distributed Energy Resource Compliance and Enforcement and be provided as advice to Ministers.

In considering standards compliance and enforcement, the Committee would work with bodies currently charged with training, certification and enforcement of DER standards, including state electrical licensing and regulatory bodies; the Clean Energy Council product approvals, training and accreditation processes, and the Clean Energy Regulator's compliance and enforcement process.

The Clean Energy Regulator (CER) and Clean Energy Council (CEC) have existing processes to certify products and installers of PV systems, inverters and batteries, and the CER also undertakes extensive inspection of systems which claim Renewable Energy Certificates (RECs). Established processes also exist for metering and related devices connecting into distribution networks, while DNSPs are implementing new management, control and communications systems which will assist DER integration. Any new electrical appliance used in Australia must also be tested and comply with relevant consumer and safety standards. The compliance powers generally sit with the state regulators, and in part with the AER, in part distribution businesses. However, established processes for certification, installation and monitoring of compliance may not yet include the increasing number of balance-of-system products. These include communications, cyber security and control systems. The Governance Committee could play a useful role in coordinating the various processes already established and providing advice about how to modify these if needed, as well as in identifying gaps and developing new processes to fill them.

4.7 Advisory Role

Given the complexity of existing arrangements for DER technical standards and the rapidly changing nature of DER, the DER Standards Governance Committee could also be tasked with provision of advice and undertaking reviews in matters impacting DER technical standards, including advice on:

- jurisdictional standards;
- on improving compliance and enforcement, and
- any other relevant matters.

Questions for Stakeholders

Q2. Do you have any feedback on the proposed functions of the DER Standards Governance Committee?

Q3. Do you support the DER Standards Governance Committee being advisory or be determining? Please provide reasons.

Q4. Do you have any feedback about the Committee determining standards in a subsidiary instrument under the rules?

Q5. Do you have any feedback on the development of new compliance and enforcement arrangements for DER technical standards?

5. The nature and structure of the DER Standards Governance Committee

5.1 Resourcing

The Governance Committee would be funded from the budget of the AEMC as the convening body, including any research and publication costs. The Committee chair and members are to be paid for their duties and any travel expenses reimbursed.

A Secretariat will also be provided by the AEMC.

It is likely that sub-committees would be formed to work on different standards. These would need to be separately budgeted and resourced as required.

5.2 Role of the chair/co-chairs

It is proposed the Governance Committee is chaired by an independent DER expert with significant knowledge of and/or experience in developing and implementing DER standards, including with regard to consumer outcomes.

Co-chairs can be elected by the Committee to be responsible for specific tasks and to fill in for the Chair when necessary.

The chair would convene and chair meetings, facilitate consensus and mediating any differences in view.

It is proposed the chair (or co-chairs) be appointed:

- for a period of up to three years, and
- shall not serve more than two full terms in that capacity.

5.3 Committee members

It is proposed that the Committee is comprised of the following membership:

- An independent DER expert chair
- An AEMC Commissioner
- The Chief Executive Officer or delegate of AEMO
- The Chief Executive Officer or delegate of the Australian Energy Regulator (AER)
- Two members that represent Registered Participants separately:
 - Market Aggregators
 - Distribution Network Service Providers (DNSPs)
- A person representing the interests of consumers
- A representative of Standards Australia
- A representative for DER Original Equipment Manufacturers (OEMs)
- A representative from non-NEM jurisdiction with DER expertise
- A representative of jurisdictional regulators.

Although they may not need to be members, it would be useful for the Committee to interact with the State electrical equipment certification bodies and relevant International Standards Committees which are developing equivalent standards.

As with the chair, members shall not serve more than two full terms in that capacity.

Members shall have minimum attendance requirements for meetings. If minimum requirements are not met, membership will be revoked, and the convening body may appoint a replacement member. Where the role is replaced, it must be replaced using the selection process for Committee members.

5.4 Selection process for the chair and members

It is proposed that all roles be selected through a nomination and merit-based selection process. The following is proposed regarding the selection process for the membership of the Governance Committee:

- Committee members are selected on the basis of their expertise in DER technical standards. Consideration is also given to balancing Committee membership representation according to geographical location and participating jurisdictions. Membership must also be considerate of balanced representation to cover for National Electricity Market (NEM) networks, non-NEM networks and SAPS standards considerations.
- Members who are appointed to represent 'Registered Participants' must be agreed to by at least one third of the category of Registered Participant they represent (for example, market aggregator, network service provider).

5.5 Decision making on standards

The Governance Committee will operate by consensus.

- Priorities for standards development will be listed and sub-committees formed to undertake the work as needed
- Drafts will be widely circulated for comment from stakeholders
- A process will be established for stakeholders to propose new standards or changes to existing standards.
- A review will be undertaken of each new guideline or standard after two years of operation, with changes made as necessary, in consultation with stakeholders.
- The Committee will monitor developments in the field and uptake the work program annually.

5.6 Monitoring and review of the Committee

The Committee should be reviewed after three years of operation by an independent reviewer appointed by Council for the purpose.

The review will consider:

- The impact of work undertaken;
- The composition and representation on the Committee and sub-committees;
- Interactions with stakeholders and related standards bodies;
- Consumer feedback, and
- Any other relevant matters.

Questions for Stakeholders

Q6. Do you support the proposed composition of the membership and nature of chair of the Committee? Please provide reasons or nominate alternative arrangements.

Q7. Do you support the proposed terms and selection arrangements? Please provide reasons.

Q8. Do you have any feedback on the other elements of the proposed operation of the Committee?

Abbreviations and defined terms

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
COAG	Council of Australian Governments
Council	COAG Energy Council
DEIP	Distributed Energy Integration Program
DER	Distributed Energy Resources
DNSP	Distribution Network Service Provider
ESB	Energy Security Board
GEMS	Greenhouse and Energy Minimum Standards
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
OEM	Original Equipment Manufacturer
PV	Photovoltaic
REC	Renewable Energy Certificate
RET	Renewable Energy Target
SAPS	Stand-alone Power System
WEM	Wholesale Electricity Market
VPP	Virtual Power Plants

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