Standards Australia Submission:

Productivity Commission Draft Report: Barriers to Effective Climate Change Adaptation

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1. Executive Summary

Standards Australia welcomes the opportunity to provide comment to the Commission's Draft Report in relation to Barriers to Effective Climate Change Adaptation. Standards Australia has sought only to respond to matters which affect or relate to the work that we do as Australia's peak non-government standards development organisation.

Standards Australia believes that in addressing matters related to climate change adaptation, a coordinated and measured approach must be adopted.

Issues related to adaptation of existing technical infrastructure need careful consideration. When policymakers consider options and alternatives in addressing climate change and its potential effect on Australian life, evidence based technical infrastructure requirements must be part of such considerations.

History has shown that early engagement on emerging matters with broad based cross-sectoral stakeholders can only lead to better outcomes. Considering standardisation needs, be they in relation to the amendment or revision of existing documents, or the development of new documents should not be an afterthought once policy direction is settled - but rather a key component of initial framework development, even if it is ultimately determined that other policy, regulatory or other voluntary instruments are preferable.

In relation to the assessment of any work which we undertake, our process bases all decisions on Net Benefit and broad based stakeholder support in relation to a properly scoped work program. Standards Australia believes that the reforms which it has made over the past few years to its project delivery and prioritisation models has put the organisation in a strong position to continue to effectively respond to standardisation needs well into the future.

We welcome the opportunities to work with government, industry and the wider Australian community in developing contemporary, innovative standards solutions in a dynamic environment.

2. Introduction

Our organisation - The role of Standards Australia in the Australian Community

It is important, for context, to briefly discuss our role within the Australian economy.

Standards Australia is recognised by the Commonwealth government as Australia's peak non-government standards development organisation. Standards Australia is Australia's member at the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC).

Standards Australia maintains technical committees which develop Australian Standards and participate in international standards development activities at the ISO and at the IEC. All Australian Standards and other technical documents which we produce are developed by technical committees.

Our Standards development process

The principles of openness, balance, and consensus are fundamental to the standards development process.

Before any standards development project can commence a project proposal, properly scoped, must be submitted and approved through our governance process.

Each proposal must evidence broad stakeholder support and provide a Net Benefit case to support the proposed work[1]. For the purposes of our process, we define Net Benefit as *'having an overall positive impact on relevant communities[2]'.*

Our Net Benefit criteria[3] takes account of the costs and benefits associated with the following criteria:

- Public health and safety;
- Social and community impact;
- Environmental impact;
- Competition; and
- Economic impact.

This criteria provides a common measure on which all project proposals can be assessed.

Once a project is approved, a technical committee is appointed to undertake a particular project, which is constituted of a balanced cross-section of technical experts representing a particular constituent group which we call nominating organisations.

A draft is then prepared to the satisfaction of the technical committee, and is released for a mandatory period of public comment. This provides opportunity for the broader community to review and to comment on the content of the document. These comments are then considered by the technical committee prior to ballot.

On the basis that consensus[4] is achieved, the document will proceed to publication. The extensive contributions of technical committee members and nominating organisations who participate in our process must always be acknowledged.

3. Responding to new and emerging issues

It is critical for Standards Australia to be able to deal with changing circumstances to the natural environment, to the policy context or technical infrastructure landscape generally.

Properly managed and maintained, technical standards allow for the efficient utilisation and of natural assets, such as water[5], allow the transfer of skills and knowledge across the economy, support interoperability and promote safety.

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[1] Which aligns with recommendations from the Productivity Commission Research Report Standards Setting and Laboratory Accreditation, 2006 p109-110

[2] Further information regarding our Project Proposal process including the Standards Australia Guide to Net Benefit is available through our website www.standards.org.au

[3] Which aligns with the Australian Government Office of Best Practice Regulation guidelines

[4] As prescribed in our Standardisation Guides available on our website www.standards.org.au

Standards underpin the integrity of physical capital by providing rigorous and tested methodologies and specifications for the design, construction and maintenance of assets and infrastructure. Other examples are seen in the frameworks which standards provide for risk assessment[6] and organisational resilience[7].

The current Standards Australia project related to the development of AS 5334-2012 *Climate Change adaptation for settlements and infrastructure – a risk based approach* provides is but one example of the use of standards in new and emerging areas policy and public interest. This project commenced with a significant stakeholder engagement program, progressed through the approval process with a Net Benefit case which evidenced strong Net Benefit to the Australian community and is now in the final stages of development prior to publication.

In this context, Standards Australia welcomes proposals from interested individuals and organisations in relation to the documents which we publish and in relation to new and emerging areas of standardisation and in relation to the delivery of programs of work which deal with cross-sectoral issues.

There are essentially three matters which need to be considered with respect to the development of Australian Standards being:

1. What is it that needs to be done (in the form of an outline and scope of the work proposed);
2. Why is it that it needs to be done (evidenced by compatibility with national policy positions and provision of a Net Benefit case); and
3. Evidence of support from relevant stakeholders for the work to be undertaken.

It is important to put this framework into context by way of example how technical standards do respond to matters as they arise. A case study related to Smart Grids is attached to this submission. The case study highlights the role that Standards Australia has in bringing stakeholders together early to engage on issues and identify the need, or otherwise, for standards to support new and emerging areas which require technical solutions.

4. Matters raised in the Draft Report

NCC Referenced Standards

Standards Australia has for many years provided significant support to the National Construction Code (NCC) through the development and maintenance of Australian Standards which are referenced in the NCC. To support this engagement, Standards Australia maintains a Memorandum of Understanding with the Australian Building Codes Board (ABCB).

It is fundamental to the way by which we develop Australian Standards referenced in the NCC to recognise that:

1. It is through the NCC that regulators set performance requirements which reflect public policy and societal goals;

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[5] Across a broad range of matters - from water infrastructure and storage, to important standards utilised through the WELS Scheme.

[6] The AS/ISO 31000-2009 *Risk management – Principles and guidelines* being a prime example

[7] As evidenced by the contribution Australia is making to the development of the proposed ISO Standard *Societal Security — Organizational resilience management system —Requirements and guidance for use*.

2. Australian Standards prepared for referencing in the NCC should comply with the terms and requirements of the ABCB Protocol for the Development of National Construction Code Referenced Documents;
3. The ABCB undertakes regulatory analysis at an early stage in the Standards development process with assistance from Standards Australia technical committees.[8]

Standards developed to meet minimum performance requirements of the NCC are developed as technical solutions to meet the objectives of the NCC, within the parameters set by policymakers. Deemed-to-Satisfy Standards are but one means to comply with the performance criteria set by the NCC.

Box 8.13 of the Draft Report provides useful commentary highlighting how Standards Australia technical committees and the ABCB work together to develop technical solutions in a challenging technical and public policy environment.

As another example, the recent revision of the AS 2870-2011 *Residential slabs and footings,* an important NCC referenced standard, provide specifications for the site classification, design and construction of slabs and footings for residential dwellings was informed and took account of significant changes in soil reactivity due to the changes in climates manifested largely in soil conditions around Australia.

The various parts of the Australian and New Zealand series AS/NZS 1170 *Structural design actions* again, by way of example, are all based on and informed by data in relation to climatic conditions. When climatic conditions change, or when events such as Cyclone Yasi provide evidence that the minimum technical specifications need to be revised, they are revised by Standards Australia technical committees.

The work program presently underway as a result of the findings from research conducted after Cyclone Yasi by the James Cook University Cyclone Testing Station and others, is evidence of how technical standards can and do adapt to changes in the physical environment. The reports found that that the majority of buildings constructed to post 1980's building standards performed well.[9] It is noteworthy that the recommendations made in the report with respect to the AS/NZS 4505 *Domestic Garage Door*s, AS 2050 *Roof tiles,* AS 1170.2 *Structural design actions: Part 2 wind actions* and AS 4055 *Wind loads for housing* are at this stage substantially complete.

It is important to recognise that the development of Australian Standards and other technical documents produced by Standards Australia are based on the best information available to technical committees and to the nominating organisations which they represent. It is critical, as outlined below, that the best information be available to allow technical committees to make decisions based on contemporary, relevant, forward looking and useable data.

Commentary within the Draft Report regarding the Timeliness of the revisions to the Bushfire Standard

[8] Memorandum of Understanding between Australian Building Codes Board and Standards Australia dated 15 November 2010

[9] Cyclone Testing Station Technical Report No. 57 *Tropical Cyclone Yasi Structural Damage to Buildings* available from www.jcu.edu.au/cts

Standards Australia notes the commentary, particularly at Box 8.15 of the Draft Report, regarding the project to revise AS 3959-2009 *Construction of buildings in bushfire prone areas*.

In 2008, Standards Australia implemented a series of reforms to the way which we commence, deliver and manage projects. This has seen our average project delivery time reduce from 3.31 years, for projects commenced prior to the changes to our operating model, to 0.86 years for projects commenced after the changes to our operating model.[10]

These of course, are average times and take account of all projects from the most simple to the most complex. For large projects, we have a target of delivery within 24 months, and we are currently averaging 19 months for delivery of these projects commenced under our new operating model. Whilst a number of internal and external factors have influenced these positive changes, it should be noted that key to our ability to deliver timely, relevant and best practice Standards has been:

- ✓ Ensuring that a project proposal is properly scoped prior to commencement;
- ✓ Requiring a Net Benefit case which evidences delivering of the project would have an overall positive impact on relevant communities;
- ✓ Ensuring that relevant stakeholder groups have been consulted by the proponent and support the project;[11]
- ✓ Providing project management resources and support sufficient to allow delivery of the particular project in agreed timeframes.

It is also worth highlighting that since the publication of AS 3959-2009, three substantive amendments to the Standard have been published, dealing with the great majority of matters which were outstanding at the time of initial publication. It is also noteworthy that a new Australian Standard for Bushfire water spray systems, a project recommended by the Victorian Bushfire Royal Commission, is at the final ballot stage of development.

Whilst it is important for matters relating to the timeliness in delivery of Australian Standards to be examined, significant changes to the way which we develop documents have been introduced prior to and post the Final Report of the 2009 Victorian Bushfire Royal Commission.

Matters related to information provision

Data is a critical factor in the development and maintenance of Australian Standards. Standards Australia agrees that a lack of information can only be considered a barrier if the information available is less than that required to generate the greatest net benefits to the Australian community. Standards Australia further contends that for information to be of value, it must be accessible and available in a form which is useable.

In looking at the future development of standards in some areas of work, to use the development of bushfire related Standards as but one example, it has been cited by our technical committees that the unavailability of data could hamper the ongoing efforts to further develop critical standards in an informed way using best available information.

[10] It should also be noted that in some, complicated or controversial development matters, these timeframes may extend due to lengthy draft development time, debate or the need to resolve negative votes at ballot stage. It is important to recognise however, that properly managed, this is evidence of the consensus development process working.

[11] If there is an issue in relation to stakeholder support, Standards Australia will work with the proponent and all stakeholders to seek to address the reasons why the project is not supported with a view to resolving the issue/s.

Standards Australia would support any initiative which allowed for a coordinate approach to the collection and dissemination of research material, data and other relevant information In Australia.

4. Response to Draft Recommendations

Assessing reforms and setting priorities

Draft Recommendation 4.1

As a general statement, Standards Australia supports reforms based on a net benefit methodology. It should be noted that in relation to any matters relevant to Standards Australia or the documents which we produce, proving positive Net Benefit is imperative for project approval.

Information provision

Draft Recommendation 6.1

Standards Australia supports the dissemination of information with respect to flood management and other natural hazards, which would assist with our Standards development work in a range of areas.

Planning and building regulation

Draft Recommendation 8.2

Standards Australia says the implementation of this draft recommendation is a matter for governments.

If a formal work program as proposed by Draft Recommendation 8.2 is developed, Standards Australia would welcome and embrace the opportunity to work with all stakeholders including the Australian Building Codes Board in relation to this proposed work.

APPENDIX – EVIDENCE BASED CASE STUDY

Smart Grids – A case study

Standards are important when assessing new and emerging areas of technical development and endeavour.

Our work in Smart Grids provides a prime example. Over the past 12 months, and with the support of the Department of Resources, Energy and Tourism, Standards Australia has been working with stakeholders in relation to the Standardisation needs of Smart Grids in Australia.

Given the apparent absence of industry consensus on the likely commercialisation of smart grids in Australia, Standards Australia developed a strategic framework for Standards Development that has been designed to assist with the management of three current challenges for the near term commercialisation of the Smart Grid market, namely:

1. effective management of any substantial public safety risks;
2. effective management of consumer information risks (i.e. predominantly data security); and,
3. to minimise the quantum of risk associated with early investment in Smart Grid technologies and market commercialisation.

These discussions have led to a strategic framework (or roadmap) for the development of Australian Standards to support the near term commercialisation of Smart Grids in Australia. Some of the anticipated benefits, which are directly relevant to adapting to climate change include :

- ✓ reducing the quantum of peak load across the network and thereby deferring the need for industry investment in network augmentation;
- ✓ supporting the early detection and rectification of network issues, thereby improving continuity of electricity supply;
- ✓ improving the efficiency, and therefore lowering the costs, of electricity delivery through better operational management of grid assets;
- ✓ delivering information to support reductions in discretionary consumer demand by actively engaging end-consumers in the management of their electricity demand;
- ✓ accommodating future growth in electric vehicles, small-scale generation and storage, and generation from renewable energy sources.

A key consideration in achievement of the above goals was to ensure that the development of any Australian Standards for Smart Grids does not constrain future innovation, given the infant state of the market and the likely dynamic nature of technologies for Smart Grid application.

It could be argued that without a robust, transparent and consensus driven process to develop such a strategic framework, outcomes could have been delayed and questions asked ‘after the fact.’

By considering Standardisation needs prior to deployment, a robust and open framework for implementation will be in place to support this important initiative which has so much potential to better manage energy grid development.