



**Senate Select Committee on the National Broadband Network**

**Standards Australia's  
Submission in Response  
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## **Purpose**

The purpose of this submission is to highlight how standards can provide alternatives to legislation as well as guidance and certainty for policy issues affecting government and industry, where needed.

Standards Australia has the capability, where appropriate, to work with the Senate Select Committee to address some of Australia's broadband challenges and ensure long-term sustainability of superfast broadband for the Australian community (please refer to Appendices A, B & C).

## **Background**

Standards Australia as a Standards Development Organisation, not only coordinates standardisation activities but develops internationally aligned Australian Standards® that deliver Net Benefit to Australia. We have developed standards across most sectors of the Australian economy, in traditional industries such as goods and services, engineering and construction, in other technical areas such as health and food, in emerging new areas of technology such as e-health, as well as in less technologically based subjects such as complaints handling and risk management.

More recently, we have been significantly engaged in the development of telecommunications standards for telecommunications installations and cabling.

Standards potentially have a variety of economic effects including increasing the scope for gains from trade, underpinning innovation and knowledge dissemination, reducing costs of production and increasing productivity, helping provide safety outcomes and assisting with risk management.

## **Terms of Reference Relating to the Inquiry**

Standards Australia will respond to the following terms of reference in one response:

2. That the committee's investigation include, but not be limited to:
  - a. any economic and cost/benefit analysis underpinning the NBN;
  - b. the ownership, governance and operating arrangements of the NBN company and any NBN related entities;
  - d. any regulations or legislation pertaining to the NBN;
  - h. any technical, economic, commercial, regulatory, social or other barriers that may impede attaining the Government's stated goal for broadband availability and performance in the specified timeframe; and



- i. the appropriate public policy goals for communications in Australia and the nature of any necessary regulatory settings to continue to develop competitive market conditions, improved services, lower prices and innovation.

## **Discussion**

Better regulation means choosing the best regulatory instrument to achieve a policy outcome. This requires looking at risk. Better regulation strikes a balance between the risk to the community from the behaviour being regulated and the restrictions placed on the community and business. The instruments chosen will lie somewhere between self-regulation (where the risk is low) and detailed, black-letter regulation (dealing with high risk behaviour).

In this context, standards offer an alternative instrument of regulation, either on their own (a form of industry self-regulation) or as 'co-regulation', where standards are called up in generalised Commonwealth, state or territory acts or regulations. There are many types of standards, including Australian Standards from Standards Australia, standards produced by other organisations, industry codes that protect consumers, and other instruments. This includes the ASIC industry codes of practice and the ACCC codes of practice.

Consensus-based standards or codes have the key advantage that, rather than being imposed by government, sometimes with limited consultation, they are instead derived directly from consultation between stakeholders from the sectors affected, which includes government agencies and regulators as well. This extensive consultation should considerably improve the chances of the outcome being accepted by business and the community.

Better regulation is about regulatory options, which should strike the right balance between protecting the community and economy against risk, protecting rights, serving policy objectives, minimising the burden of regulation, and doing this as efficiently as possible.

There are a number of purposes for which guidance material may be prepared. These include assisting people to understand what the law says or requires, and providing up-to-date technical advice. Guidance material can be used to deal with emerging issues at the national and jurisdictional level for which a regulatory response is either not appropriate or not yet developed.

Australian Standards are also often used as alternatives to black-letter regulation or adopted in regulation that has a direct impact on telecommunications. They are drafted jointly by regulators and stakeholders to achieve good regulatory practice. For example, communications and broadcasting committees exist within Standards Australia, which comprise of experts in their field who can assist greatly in developing relevant standards for deploying the NBN. Such committees include Cabling Communications Committee CT-001 and Broadcasting and Related Services Committee CT-002.

Standards Australia also has the capacity, if and when appropriate, to advise Government on Australian Standards that should be mandated in legislation. An example of this is our technical committee on Electromagnetic Compatibility (EMC) TE3. Under the EMC arrangements, Standards



Australia as the standards body, through the EMC committee, develops Australian EMC standards and provides Australian input to International EMC standards.

The availability of codes of practice is essential to the application of the telecommunications acts and regulations by employers. Codes of practice are particularly important for guidance on technical issues where regulations may have traditionally provided little in the way of specific technical requirements.

The development of nationally-aligned codes of practice would seem to be a more efficient solution in terms of government resources, and would provide better clarity for industry. Australian Standards could play a valuable role as one form of code of practice, over and above their use as 'guidance material'. The established Standards development process ensures that such documents are nationally consistent, allow equal access and are internationally aligned as appropriate to comply with WTO TBT requirements, that they have consensus support of the regulators who will apply them (and who have been involved in their development), and consensus support of the industries (employers and employees, who have again helped to develop the Standards) which will use them.

### **Technical standards**

Development of Australian Standards in the communications sector is currently undertaken by two main accredited standards development organisations (SDOs), Communications Alliance and Standards Australia.

The standards development responsibilities are broadly:

1. *Standards Australia*: develops technical Australian Standards that relate to radiocommunications, electromagnetic compatibility, electrical safety, broadcasting (transmission and reception), information technology and other matters that may be ancillary to the operation or form of the communications equipment specified. Standards Australia's scope as a standards developer is defined by the acceptance of responsibility for sectors not covered by other standards development organisations.
2. *Communications Alliance*: develops technical standards in relation to telecommunications for intended operation under *The Telecommunications Act 1997*

There are many non-Australian Standards SDOs in the ICT sector that operate independently of the formal mechanisms of Standards Australia, Communications Alliance and the formal channels to ISO, IEC and ITU. These operate under a range of different arrangements, from individual member based contributions (e.g. Internet Engineering Taskforce (IETF)) to closed industry consortia. Many of these organisations have established relations with more formal standards development organisations.



Standards Australia recognises that independent of the regulatory approach Governments decides to take when faced with policy issues, uniformity in this context to allow a national approach and equal access (equivalence) to telecommunications services and networks, which is essential to enhance national productivity and diminish the regulatory burdens and associated costs for business.

## **Equivalence**

Whatever system is used, equal access must be ensured and this is what national standards are designed to do. Australian Standards® directly assist in harmonising telecommunications access and establishing equivalence.

Standards help make laws and regulations consistent across Australia. By using a Standard, a South Australian consumer law becomes consistent with a NSW fair trading regulation. Standards also offer an alternative to regulation, with less red tape and business costs, while still providing security for families and small business consumers.

Australian Standards have the additional benefit of being drafted jointly by regulators and technical experts in this space (stakeholders). For example, as the Australian member of the International Electrotechnical Commission, Standards Australia works very closely with energy regulators, unions, employers and other stakeholders in both Australia and New Zealand to harmonise electrical practice and mitigate risks of serious injury and death associated with electrocution. Under this system, jurisdictions have the prerogative to decide whether or not to mandate the standard into regulation.

Regulatory structures can be depicted as pyramids with legislation and regulation at the apex, supported by codes, with standards at the base. Australian Standards offer each sectoral regulatory “pyramid” a sound and consistent base and can do the same to further address the needs of the telecommunications sector.

## **Standards Australia: Our Business Model**

Standards Australia has undertaken a significant business transformation to ensure its activities are sustainable and that it can continue to serve the Australian community through the delivery Australian Standards well into the future.

As noted in Appendix A, Standards Australia introduced a new business model in October 2008 to increase efficiency and focus its limited resources where they can deliver the most benefit to Australia on a prioritised, economy wide, sectoral and cross-sectoral basis. This business model emphasises that responsibility for identification of needs, solution and solution provider must be provided by the relevant community of interests. Where a Standard is selected from the continuum of regulatory and non-regulatory options, there are market choices in relation to niche and accredited Standards Development Organisations, including Standards Australia. For Standards



Australia to evaluate and prioritise a proposal for an Australian Standard, demonstrated stakeholder commitment and up front agreement on sufficient resources are required to ensure agreed, balanced, robust and timely outcomes.

It is the opinion of Standards Australia, based on the policy direction and potential work program of Senate Select Committee, that the most suitable choice for the development of accelerated standards to address key recommendations out of this inquiry would be the 'collaborative pathway'.

This pathway is a customised solution which will provide flexibility and choice, acknowledging that stakeholders and the community will be in a position to contribute the resources and funding required to develop standards expeditiously.

As mentioned above, Standards Australia currently has a number of collaborative relationships and projects which include:

- Department of Health and Ageing (DoHA) – Health Informatics (IT14);
- Department of Environment, Water, Heritage and the Arts (DEWHA) – Energy efficiency standards; and
- The South Australian Government – Environmental Protection Authority (EPA) – Greywater treatment for river vessels.
- Centrelink – Development of a new Australian Standard® for new smart card authentication of ID.

Standards Australia's business model was introduced following extensive stakeholder consultation conducted by Standards Australia. The business model also takes into account and aligns with recommendations put forward by the Productivity Commission in its 2006 review and report on Standard Setting and Laboratory Accreditation. These recommendations included that the development of Australian Standards be supported by the client government agency, for domestic standardisation activities (Recommendation 9.1 of the PC Report in November 2006).

## **Conclusion**

Standards Australia supports the Government's initiative for a National Broadband Network to bring real net benefits to the Australian community. Standards Australia has the expertise to assist in providing economic development that is sustainable and efficient through its expert technical committees and to meet national obligations and interests.

Standards Australia, as the nation's peak non-government standards development body, has a very important role to play in the development of Australian Standards. They are an important component of a harmonised regulatory approach.



Standards Australia would welcome increased engagement with Senate Select Committee to maximise the benefits which may be gained from development and utilisation of relevant and effective Australian Standards in meeting the telecommunications challenges of the future.





## **Appendix A: Standards Australia**

Standards Australia is recognised by the Commonwealth Government as the nation's peak Standards body. It is a not-for-profit, non-government organisation that coordinates standardisation activities and facilitates the development of Australian Standards® by working with Government, industry and the community.

Standards Australia also promotes excellence in design and innovation through the Australian International Design Awards.

Standards Australia responds to national needs for contemporary, internationally aligned Standards that deliver Net Benefit to Australia (i.e. the benefits must outweigh the costs – all Australia Standards must have a positive effect on relevant communities of interest) (Net Benefit) by:

- coordinating representation of Australian input into international standards development and adoption, promoting information exchange and knowledge management through our National Standards Office (NSO);
- accrediting Standards Development Organisations (SDOs) through the highly autonomous Accreditation Board for Standards Development Organisations (ABSDO); and
- developing internationally harmonised Australian Standards and other normative technical documents through expert Committees within Standards Australia Standards Development (SA SD) as a major ABSDO accredited SDO.

Standards Australia is Australia's member of the Pacific Area Standards Congress (PASC), International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC) and the International Council of Societies of Industrial Design (ICSID), providing a direct link to the regional and international arena and creating further efficiencies. It offers support to Government in relation to such for a as the APEC Standards and Conformance Subcommittee (ASPEC SCSC) and to business through the APEC Business Advisory Council (ABAC).

Standards Australia has a catalogue of around 7,000 existing standards, which it maintains in order to ensure currency and order. Standards Australia's standards development activities are undertaken in compliance with the World Trade Organization Agreement on Technical Barriers to Trade. Standards Australia has over 450 active projects currently under development.

To support this work and assist the interface between non-government standards legislation and regulation, a Memorandum of Understanding (MoU) has existed between Standards Australia and the Commonwealth Government since 1988, as reviewed from time to time.

Australian Standards set specifications and guidelines to ensure the quality, safety, reliability and consistency of products and services, developed in accordance with ABSDO's Requirements for Accreditation of Standards Development Organisations and Criteria for Designation as an Australian



Standard. These specify the effort required of consensus groups such as Technical Committees under the authority of an accredited SDO to achieve consensus and ensure the interests of all stakeholders are considered during the development of an Australian Standard.

In October 2008, Standards Australia Standards Development introduced a new business model to improve Standards development processes, enhance engagement with stakeholders, and provide stakeholders with choice in development pathways. The new business model allows Standards Australia Standards Development to focus its limited resources where they can deliver the most benefit to Australia, and will ensure its long-term financial sustainability in perpetuity.

This new business model was introduced following extensive stakeholder consultation conducted by Standards Australia. The new business model also takes into account and aligns with recommendations put forward by the Productivity Commission in its 2006 review and report on Standard Setting and Laboratory Accreditation. These recommendations included that the development of Australian Standards be supported by the client government agency, for domestic standardisation activities (Recommendation 9.1 of the PC Report in November 2006).

Standards Australia is a public company limited by guarantee. More than 70 of Australia's leading industry, government and consumer organisations form the Members of the Standards Australia Council. The Council has the responsibility to elect the Board of Directors, the Accreditation Board for Standards Development Organisations (ABSDO) and to appoint new Members to the organisation. The Standards Australia Council is responsible for the general oversight of standardisation in Australia and the governance of Standards Australia.



## **Appendix B: What is an Australian Standard®?**

Australian Standard® branded standards are developed by accredited Standards Development Organisations (including Standards Australia) in accordance with ABSDO's criteria and requirements [refer to [www.absdo.org.au](http://www.absdo.org.au) and [www.standards.org.au](http://www.standards.org.au) (then follow HOME › AREAS & ACTIVITIES › COORDINATION & INFORMATION)]. These websites list a number of documents concerning the accreditation process, including:

- NSO Procedure 1: Standards Development Projects;
- Requirements for Accreditation of Standards Development Organisations;
- Criteria for Designation as an Australian Standard;
- Access to Australian and International Standards;
- Numbering of Australian Standards; and
- The Guide to Net Benefit.

The development of Australian Standards involves voluntary participation from relevant industry, government, community and other interested parties via balanced technical committees. Australian Standards are documents that are regularly reviewed to allow for research, changes and advancements in community expectations, technical, legal and environmental factors.

Australian Standards offer a mechanism for guidance with which compliance is not mandatory unless the Standard is incorporated into law by government.

The decision as to whether a Standard will become mandatory and given regulatory effect is usually indicated at the commencement of the Standards development process as a result of regulatory arrangements managed by various Commonwealth, State and Territory government bodies.

Standards are developed according to due process which provides them with their authority and widespread acceptance. That due process is centred on consensus, transparency, participation on a non-discriminatory basis and impartiality.

The Standards development process within Standards Australia Standards Development involves the following steps:

- Request for development of a new Australian Standard;
- Evaluation on national needs, costs and benefits;
- Approval of new Standards development project;
- Committee formed;
- Committee develops draft;
- Public comment on draft;
- Consideration of comments;
- Ballot; and
- Publication.



### Appendix C: Sample National and International Standards Relating to FTTP\*

Number	Publication Title	Designation	Year
1.	Telecommunications installations—Generic cabling for commercial premises (ISO/IEC 11801:2002, MOD)	AS NZS 3080-2003 AMDT 1	2009
2.	Communications Cabling Manual - Module 1: Australian regulatory arrangements	HB 243-2007	2007
3.	Communications cabling manual - Module 2: Communications cabling handbook	HB 29-2007	2007
4.	Communications Cabling Manual - Module 3: Residential communications cabling handbook	HB 252-2007	2007
5.	Telecommunications installations - Generic cabling - Industrial premises	AS NZS ISO IEC 24702-2007	2007
6.	Telecommunications installations - Implementation and operation of customer premises cabling - Testing of optical fibre cabling	AS NZS ISO IEC 14763.3-2007	2007
7.	Telecommunications installations - Telecommunications pathways and spaces for commercial buildings (ISO/IEC 18010:2002, MOD)	AS NZS 3084-2003 AMDT 1	2007
8.	Installation requirements for customer cabling (Wiring Rules)	AS ACIF S009-2006	2006
9.	Requirements for customer cabling products	AS ACIF S008-2006	2006
10.	Testing of balanced communication cabling in accordance with ISO/IEC 11801 - Installed cabling	AS NZS IEC 61935.1-2006	2006
11.	Testing of balanced communication cabling in accordance with ISO/IEC 11801 - Patch cords and work area cords	AS NZS IEC 61935.2-2006	2006
12.	Information technology - Generic cabling for homes	AS NZS ISO IEC 15018-2005	2005



13.	Telecommunications installations - Administration of communications cabling systems - Basic requirements	AS NZS 3085.1-2004	2004
14.	Telecommunications installations - Generic cabling for commercial premises (ISO/IEC 11801:2002, MOD)	AS NZS 3080-2003	2003
15.	Telecommunications installations - Generic cabling systems - Specification for the testing of balanced communication cabling	AS NZS 3087.1-2003	2003
16.	Telecommunications installations - Generic cabling systems - Specification for the testing of patch cords in accordance with AS/NZS 3080	AS NZS 3087.2-2003	2003
17.	Telecommunications installations - Telecommunications pathways and spaces for commercial buildings	AS NZS 3084-2003	2003
18.	Telecommunications installations - Generic cabling for commercial premises	AS NZS 3080(INT)-2002	2002
19.	Telecommunications installations - Generic cabling systems - Specification for the testing of balanced communication cabling in accordance with values set out in AS/NZS 3080:2000	AS NZS 3087-2000	2000
20.	Handbook for field testing of balanced cable installations	HB 27-1996	1996
21.	Telecommunications installations - Integrated telecommunications cabling systems for commercial premises	AS NZS 3080-1996	1996
22.	Telecommunications installations - Integrated telecommunications cabling systems for small office/home office premises	AS NZS 3086-1996	1996
23.	Telecommunications installations - Optical fibre cables for telecommunications applications - Cables for connection to carrier networks	AS 3082.2-1993	1993
24.	Telecommunications installations - Telecommunications pathways and spaces for commercial buildings	AS 3084-1993	1993

*\* Please note that this is not an exhaustive list*