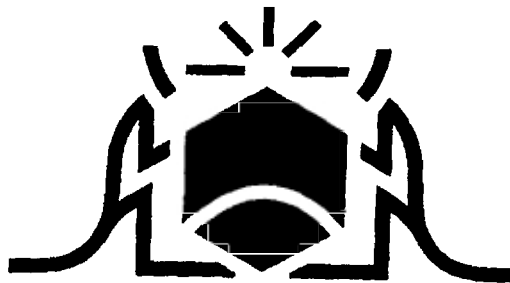


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Singapore– Australia Free Trade Agreement

**Submission to the Joint Standing
Committee on Treaties**



**The
Institution of Engineers,
Australia**

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1. Introduction

The Institution of Engineers Australia is the peak body for engineering practitioners in Australia and represents all disciplines and branches of engineering, including information technology. The Institution has over 70,000 members Australia wide and is the largest and most diverse engineering association in Australia. All members of the Institution are bound by a common commitment to promote engineering and facilitate its practice for the common good. The Institution welcomes the invitation by the Joint Standing Committee on Treaties to comment on the free trade agreement between Australia and Singapore (SAFTA).

The closer economic links provided by SAFTA have the potential to increase trade and investment between Australia and Singapore bringing major benefits to Australia generally. Singapore was Australia's seventh largest trading partner in 2001-2002. Exports of services also reached \$A 2.2 billion, making Singapore Australia's fifth largest trade in services partner.

SAFTA has the potential to create benefits for many sectors of the Australian economy. For engineering professionals these benefits include eased residency requirements and the attainment of visas. Unfortunately, opportunities within SAFTA to address barriers specific to engineering, primarily registration and the mutual recognition of qualifications, have been missed. Commitments toward enhancing and supporting the cross-border supply of engineering services will need to be renegotiated during the first review of SAFTA if a positive outcome for the Australian engineering profession is to be achieved.

2. The Agreement

Singapore has accepted bound commitments on the removal or easing of residency requirements for Australian professionals, including engineers, which is a positive outcome. SAFTA also provides a framework for Australian professional bodies to negotiate mutual recognition agreements (MRA) with their counterpart bodies in Singapore. Unfortunately, the Institution has been attempting to negotiate a MRA with Singapore for a number of years without success. The last round of negotiations between the Institution and the Singaporean Professional Engineers Board terminated unsatisfactorily in 2001. Without strong backing from the Australian government it seems unlikely that the current status quo will change. SAFTA managed to deal with some of the recognition of qualification problems facing legal professionals. However, it is unfortunate that the same was not attempted for engineers.

2.1 *Positive outcomes for engineers*

Key outcomes for Australian engineers include:

- Eased residency requirements for Australian engineers - two years' residency is no longer a requirement for private sector jobs
- Open market access and national treatment for services
- Commitment to address anti-competitive business practices
- Easier attainment of visas

- Short-term entry for Australian business people extended from 1 month to 3 months
- Long-term business residents in Singapore granted total stay up to at least 14 years.

3. Regulation issues

The major barriers to trade in engineering services are regulation issues. Unfortunately, these have not been adequately addressed in SAFTA.

Higher levels of mobility and expansion in the international delivery of professional services are leading to increased numbers of professionals undertaking activities in countries other than the one in which they gained their initial qualifications and experience.

To facilitate access to employment opportunities in this global environment, many professional associations are entering or have entered into bilateral and multilateral agreements of cooperation and mutual recognition. The SAFTA negotiations provided an opportunity to strengthen these existing agreements. Unfortunately this opportunity has been missed.

3.1 MRAs facilitated by professional associations

Accredited Australian qualifications and overseas engineering qualifications are recognised through a number of formal agreements with engineering accreditation bodies in other countries. Unfortunately Singapore is not currently a member of any of these MRAs. The Institution believes however that the APEC Engineer Register (outlined in Appendix A) could be successfully used as a best practice MRA to facilitate the movement of professional engineers between Australia and Singapore, especially given that Singapore is a member of APEC.

The APEC Engineer Register also has the potential to increase trade in engineering services beyond the opportunities presented by the other MRAs outlined in Appendix A. It is unfortunate that opportunities to incorporate a MRA into SAFTA for the engineering profession based on the APEC Engineer Register have been overlooked. The Institution would recommend that this issue be revisited during the first review of SAFTA if a positive outcome for the engineering profession is to be achieved.

3.3 Current opportunities for Australian engineers to practice in Singapore¹

The Professional Engineers Board, a statutory board in the Ministry of National Development, is responsible for regulating engineering practice in Singapore. The Board is set up under the Professional Engineers Act. All engineering disciplines come under the purview of the Professional Engineers Board. All persons engaging in professional engineering works should be either registered with the Board or

¹The following section has been compiled from the "APEC Directory on Professional Services, Engineering Profession – Singapore": http://www.dfat.gov.au/apec/prof_services/singapore_eng.html

otherwise work under the direction and supervision of a registered professional engineer of the Board.

There are two basic requirements for registration as a professional engineer. The applicant should have an engineering degree acceptable to the Board and a sufficient length of post-graduate engineering experience. There are 3 categories of requirements for post-graduate experience. Applicants with a minimum of 2 years of experience (in Singapore) will be required to take the Professional Practice Examination (PPE) on Acts and Rules governing their practice before the Professional Interview. Applicants with more than 5 years of experience, two of which must be in Singapore, could attend the interview without taking the PPE. Applicants with more than 10 years of experience, not necessarily in Singapore, would also attend a Professional Interview without taking the PPE.

Only engineering degrees of acceptable standards are accredited by the Board. In general, the Board looks into details on admission criteria, qualification of the teaching staff, teaching and research facilities as well as the quality of the graduates. Problems associated with the recognition of Australian engineering degrees by the PEB are discussed in Section 3.3.

An applicant for registration as a professional engineer can submit their application to the Board any time. The Board will process the details of the application. Acceptable applicants will be asked to attend a professional interview conducted by the Board. The applicant is also required to submit two certificates of good conduct to the Board. There is no restriction on citizenship. Applicants who can demonstrate that they are competent will be accepted for registration

3.3 Recognition of Australian qualifications

Major problems exist with the mutual recognition of Australian engineering degrees by the PEB. Currently, not all Bachelor of Engineering Degrees offered by Australian universities are accredited by the PEB. As such, engineers who have graduated from these universities are unable to practice as a professional engineer in Singapore. The Professional Engineers Act sets out which Australian Universities have been accredited by the PEB as having acceptable standards. Currently the Act only accredits 14 Australian universities as providing engineering degrees acceptable to Singaporean standards and of these 14 universities, only half of the engineering degrees they offer are accredited by the PEB. For example the PEB recognises only four of the eight engineering courses offered by the Curtin University of Technology and only two of the nine courses offered by James Cook University of North Queensland. A full listing of the universities and courses accredited by the PEB can be found at: <http://www.peb.gov.sg/peb/html/pen.html>

Since 1965, the Institution has undertaken an accreditation program for Australian university programs and courses. Traditionally, like many accrediting bodies around the world, the Institutions approach was based mainly on curriculum content, as well as measures of institutional capability such as the number and qualifications of staff, resources and facilities, etc. Every engineering school in Australia is reviewed on a five-yearly cycle. Accreditation of each degree program is confirmed or withheld, as

appropriate and developmental advice is offered. Currently, the Institution accredits over 40 Australian universities who provide engineering programs. A full listing of the universities and courses accredited by the Institution can be found at: <http://www.ieaust.org.au/membership/res/downloads/AccredBEprogs.pdf>

The limited recognition of Australian engineering degrees by the PEB is extremely problematic for Australian engineers attempting to export their services to Singapore. Unless Australian engineers have studied one of the degree programs recognised by the Professional Engineers Act, they are unable to gain registration in Singapore.

Under SAFTA, Singapore is making full national treatment and market access commitments for universities, adult and vocational and technical education, with only some limited exceptions. It is anticipated these commitments will ensure that Australian education providers face liberal conditions in offering education services to Singaporean students. Singapore government scholarships for overseas use will also be tenable at Australian universities.

The Access Economics report "The Costs and Benefits of a Free Trade Agreement with Singapore" prepared for the Department of Foreign Affairs and Trade in 2001, outlined that the main benefits of an FTA would be in the services sector, in particular education services. The report highlighted that "The potential benefits for Australia in securing a competitive edge in terms of persuading Singaporean students and parents to look towards Australia for education services, and particularly to secure greater recognition by Singapore of Australian qualifications, would likely be quite substantial." Access Economics also outlined that the purely static benefits of SAFTA could amount to around \$50 million in additional educational services exports per year.

The restrictions placed by the PEB on the recognition of Australian engineering qualifications have eroded the perceived benefits that SAFTA would bring via the export of educational services. The Institution would suggest that the Australian government has underestimated the potential of non-tariff barriers, like the non-recognition of qualifications by the PEB, to undermine the perceived benefits of SAFTA in the educational services area.

Unfortunately, opportunities within SAFTA to address barriers to trade in engineering and education services have been missed. Singaporean students have been effectively barred from studying engineering at a majority of Australian universities, and SAFTA has done nothing to improve the situation. Engineering students are effectively being forced to study only those courses accredited by the PEB and listed under the Professional Engineers Act.

4. Conclusion

The first review of SAFTA will need to readdress the non-tariff barriers outlined above if a positive outcome for the Australian economy and the engineering profession is to be achieved.

Appendix A

APEC Engineer

The APEC Human Resources Development Working Group Steering Committee for mutual recognition of professional engineers developed the initiative for the APEC Engineer Register over the period 1997 – 1998. The intent of the APEC Engineer Register is to recognise the equivalencies in the qualifications and experience of practising professional engineers in the participating economies and to facilitate trade in engineering services between those participating economies. It is anticipated that engineers entered on the APEC Engineer Register will be granted a high degree of mutual exemption from further assessment when practising in any of the participating economies: Australia, Canada, Hong Kong China, Japan, Korea, Malaysia, New Zealand and the United States.

An APEC Engineer is defined as a person who is recognised as a professional engineer within an APEC economy, and has satisfied an authorised body in that economy (for example the IEAust), operating in accordance with the criteria and procedures approved by the APEC Engineer Coordinating Committee, that they have:

- completed an accredited or recognised engineering program;
- been assessed within their own economy as eligible for independent practice;
- gained a minimum of seven years practical experience since graduation;
- spent at least two years in responsible charge of significant engineering work; and
- maintained their continuing professional development at a satisfactory level.

All practitioners seeking registration, as APEC Engineers must also agree to be bound by the codes of professional conduct established and enforced by their home jurisdiction and by any other jurisdiction within which they are practising. Such codes normally include requirements that practitioners place the health, safety and welfare of the community above their responsibilities to clients and colleagues, practise only within their area of competence, and advise their clients when additional professional assistance becomes necessary in order to implement a program or project.

APEC Engineers must agree to be held individually accountable for their actions, both through requirements imposed by the licensing or registering body in the jurisdictions in which they work and through legal processes.

As required by the *APEC Engineer Framework*, the Council of the Institution has convened an APEC Engineer Monitoring Committee, which includes representatives from leading stakeholders. The Committee is a sub-committee of the National Engineering Registration Board. The Committee monitors mechanisms for determining the eligibility of professional engineers practising in Australia to be placed on the APEC Engineer Register – Australia.

Washington Accord

The Washington Accord was signed in 1989. It is an agreement between the bodies responsible for accrediting professional engineering degree programs in each of the signatory countries. It recognises the substantial equivalence of programs accredited by those bodies, and recommends that graduates of accredited programs in any of the

signatory countries be recognised by the other countries as having met the academic requirements for entry to the practice of engineering. The Washington Accord covers professional engineering undergraduate degrees. *Engineering technology and postgraduate-level programs are not covered by the Accord.* The signatory countries of the Washington Accord are:

Australia	Institution of Engineers, Australia	www.ieaust.org.au
Canada	The Canadian Accreditation Board of the Canadian Council of Professional Engineers	www.ccpe.ca
Hong Kong SAR	The Hong Kong Institution of Engineers	www.hkie.org.hk
Ireland	Institution of Engineers of Ireland	www.iei.ie
New Zealand	Institution of Professional Engineers, New Zealand	www.ipenz.org.nz
South Africa	The Engineering Council of South Africa	www.ecsa.co.za
United Kingdom	The Engineering Council of the UK	www.engc.org.uk
US	The Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology	www.abet.org
Japan	Japanese Accreditation Body for Engineering Education	www.jabee.org

The signatories have exchanged information on, and have examined, their respective processes, policies and procedures for granting accreditation to engineering academic programs, and have concluded that these are comparable. Through the Accord, the signatories recognise the substantial equivalence of such programs in satisfying the academic requirements for the practice of engineering at the professional level.

International Register of Professional Engineers

The Register is governed by the Engineers' Mobility Forum, a grouping of international professional associations who enter into various types of MRAs for membership. The following professional associations participate:

Australia	Institution of Engineers, Australia	www.ieaust.org.au
Canada	Canadian Council of Technicians and Technologists	www.cctt.ca
Hong Kong, SAR	The Hong Kong Institute of Engineers	www.hkie.org.hk
Ireland	Institution of Engineers of Ireland	www.iei.ie
Japan	Details unconfirmed	
Korea	Korean Professional Engineers Association	
Malaysia	Board of Engineers, Malaysia	http://www.bem.org.my/main1.htm
New Zealand	Institution of Professions Engineers, New Zealand	www.ipenz.org.nz
South Africa	Engineering Council of South Africa	www.ecsa.co.za
United Kingdom	The Engineering board of the UK	www.engc.org.uk
US	US Council for International Engineering Practice	www.usciep.org

Through this Agreement, the signatories aim to facilitate cross border practice by experienced engineers. The signatories have agreed to use their best endeavours to ensure that the bodies responsible for licensing engineers to practice in their own economies simplify as much as possible the requirements for those on the International Register. Some economies for example, the US and Canada have more complex licensing laws than others and all signatories have agreed to identify what

local requirements will still remain to be met by engineers on the International Register who wish to practice in the signatory's economy, and to work towards minimising such requirements. Engineers with an accredited degree and who have gained a minimum of seven years practical experience since graduating and have spent at least two years in responsible charge of significant engineering work will be eligible to be entered on the International Register.