



CELEBRATING
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Building and Development Certifiers Regulations

Response to the NSW public consultation draft

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1. Introduction

Engineers Australia welcomes the opportunity to provide a submission in response to the draft Building and Development Certifiers Regulations 2019.

This submission focusses on “Schedule 3 Qualifications and Experience” and “Schedule 4 Knowledge and Skills” of the draft Regulation, insofar as it relates to engineers.

The major thrust of our submission is that for the draft Regulation, and indeed other building-related legislation proposed by the NSW Government in 2019, the regulatory process could be streamlined and enhanced through the enactment of a Professional Engineers Registration bill. The reasons for this recommendation are provided in Section 2 of this submission.

Section 3 of this submission introduces why a statutory registration scheme is the preferred option for more efficient regulation, an overview of how it could operate, the likely cost, and evidence of widespread support for the registration of engineers.

1.1.1 Recommendation

It is recommended that the NSW Government enact a Professional Engineers Registration Act to provide a compulsory mechanism for registering engineers. Registered status under this Act should then become a prerequisite for registration under any of the engineering-related categories of accreditation in the draft Building and Development Certifiers Regulations 2019.

1.2 About Engineers Australia

Engineers Australia is the peak member-based professional association for engineers. Established in 1919, Engineers Australia is in its centenary year and is constituted by Royal Charter to advance the science and practice of engineering for the benefit of the community.

The term ‘community’ is used in its widest sense, and the issues raised in this submission aim to improve the outcomes for everyone. Engineers Australia’s contribution is designed to help create a legislative framework to deliver a better-performing building sector with greater accountability of those involved—especially in relation to the delivery of competent engineering services.

Our work is supported by around 100,000 members, including about 25,000 in NSW.

Engineers Australia establishes and maintains national professional standards, benchmarked against international norms. As Australia’s signatory to the International Engineering Alliance, Engineers Australia is the trusted accreditation authority for Australian undergraduate university engineering programs and manages Australia’s largest voluntary register for engineers, the National Engineering Register (NER).

2. Schedule 3 – Qualifications and Experience

2.1 Pathway 1 for engineers

The Regulation (Schedule 3) provides for registration on the Engineers Australia “National Engineering Register” (NER) as an acceptable means for demonstrating that a person holds suitable qualifications and experience required to be granted accreditation in the engineering categories of accredited certifiers.

This is a suitable mechanism but has limitations (described below), which would be addressed were the NSW Government to enact a Professional Engineers Registration Act to give greater surety to the intent of the draft Regulation.

2.1.1 About the NER

The NER is the largest publicly searchable register in the country with 21,363 people registered as of July 2019. It delivers a uniform national benchmark of professionalism in the broadest areas of engineering practice, both general and special, in both the private and public sectors.

The NER covers each of the three occupational categories of professional engineer, engineering technologist and engineering associate.

It is possible for both members and non-members of Engineers Australia to be registered on the NER. It improves professional recognition and public trust of engineers in Australia because all registrants on the NER meet the standard of professionalism expected of any professional:

- a recognised engineering qualification, benchmarked to international education standards
- a minimum level of relevant professional practice
- currency of continuing professional development
- a commitment to ethical practice
- the benefit of Professional Indemnity Insurance.

The benefit of Professional Indemnity (PI) insurance is currently a requirement for NER status. The annual registration certificate issued to registrants on the NER demonstrates their currency and continued commitment to the serious obligations of professional practice.

2.1.2 Limitation of a voluntary registration system

In the context of the draft Regulation, it is important to note that while the NER has made important advancements towards ensuring that registered engineers have met the high standards of professionalism expected within industry, it is not a substitute for compulsory registration of engineers. In any jurisdiction that does not require engineers to be registered, an engineer looking to avoid scrutiny/accountability can practise without registration. This may well explain why only 5,248 engineers are registered on the NER in NSW out of roughly 60,200 engineers who claim to be working in engineering occupations¹. The bottom line is that someone can still call themselves an engineer, and attempt to carry out the duties of a professional engineer, without having to meet the high standards required to be registered on the NER.

For clarity, Engineers Australia believes that the NER provides a good *model* for the NSW Government, and that bodies like Engineers Australia are best-placed to assess the qualifications and experience of applicants to a statutory register. However, far greater community protection would result from the NSW Government creating its own register through the enactment of a Professional Engineers Registration Act.

In the context of the draft Regulation, the statutory regulation of who can provide professional engineering services is recommended, because the role of regulator belongs to Government. Unlike professional bodies, governments have the resources and legal power to conduct comprehensive investigations and to enforce sanctions.

2.2 “Pathway 2” for engineers

Given that the limitations to the effectiveness of a voluntary registration system, it is unavoidable that the draft Regulation offers a second pathway for recognition of qualifications and experience. The major shortcoming is that Pathway 2 for engineers usually does not even require an engineering degree. This means the Pathway 2 capability expected is inequivalent (lower) to Pathway 1. Inevitably, this will lead to a two-tier capability profile and cause confusion in the user community.

Of the 13 categories of certifier that are engineers, just four (C7, C12, C8 and C10) have an engineering degree as a minimum requirement. This is unacceptable.

Furthermore, with the certifiers being able to be recognised as an ‘engineer’ under both Pathway 1 and Pathway 2, this indicates that the government suggests both Pathways to be equivalent to an engineer. This lowers the high-quality that

¹ Engineers Australia analysis of the 2016 census estimates that 60,197 individuals (professional engineers plus far lesser numbers of engineering technologists and engineering associates) were in the NSW labour force and working in engineering occupations. The NER figure stated is accurate for July 2019.

Engineers Australia expects from engineers (especially those who meet the requirements of the NER), and increases the risk of a further erosion of public trust in the profession.

The Regulation makes no provision for the assessment of knowledge and skills associated with engineers applying for accreditation as certifiers in the relevant categories of certifier, a function that was previously conducted under the Building Professionals Board. In the absence of a credible accreditation authority, the second pathway could be vulnerable to ad hoc groups offering accreditation services.

2.2.1 Engineering is unregulated in NSW

Use of the title 'engineer' is unrestricted and is likely to remain so because it has become a generic term. In the absence of regulation for engineering in NSW, anyone can claim to be an engineer and offer engineering services without having to demonstrate appropriate competencies and with disregard to professional standards.

The community trusts engineering without realising it. The buildings we live in. The cars we drive. The devices we use every day. We trust that they are safe and will work as they are designed to. Rarely do we realise how much of the world we inhabit was created by engineers.

When trust is unconscious, it's even more important to protect the integrity of engineering practice.

The draft Regulation leaves too many loopholes for individuals to misrepresent themselves as engineers in NSW. The solution to this is simple and effective: enact a Professional Engineers Registration Act.

3. Registration of engineers

3.1 A registration Act to support the Regulations

Engineers, apart from those who work as certifiers in the building industry, are not presently regulated within NSW by the government. The draft Regulation would be greatly improved and considerably simplified if the Government also enacts a Professional Engineers Registration Act. There are several reasons for this:

- As described above, the NER is a voluntary scheme, so is no more than an ad hoc means for identifying an engineer. The minimum requirements for Pathway 2 are inadequate. These regulatory shortcomings can be filled by creating a statutory register for professional engineers.
- Professional engineering practice in any of the accreditation categories requires far more than the knowledge and skills listed in Schedule 4 of the draft Regulation. The problems prevalent in the NSW construction industry require strongly independent professional advice from engineers who exercise diligence and risk management processes to safeguard the community ahead of developer and builder interests. When engineers risk their registration (and their employment prospects) by compromising standards, they will think twice before allowing or certifying substandard design or construction.
- Registration under a Professional Engineers Registration Act could be very simply called up in the Regulation as the means by which someone can be deemed suitable in the engineer categories of accreditation established under the Regulation.
- With Queensland having had compulsory registration of engineers in place since 1929 and the Parliament of Victoria recently passing laws to introduce compulsory registration of engineers, there is an increased risk that unqualified or substandard engineers will seek to provide engineering services in NSW, where the engineering profession is currently unregulated.

A Professional Engineers Registration Act is an established way to enhance regulatory efficiency.

3.2 Proposed operation of a registration scheme

Given the broad membership coverage and knowledge we have of the engineering profession, Engineers Australia is well placed to provide informed views to the Government on how a compulsory registration scheme could operate. For example, we developed the voluntary National Engineering Register (NER) in 2015, are an approved assessment entity for the QLD Government's registration scheme and have been involved in the process of developing the Victorian Government's Professional Engineers Registration Bill 2019, which passed Parliament in August 2019.

A Professional Engineers Registration Act in NSW would require anyone who provides professional engineering services (without supervision) to be registered.

It is recommended that NSW follow the example of QLD and institute a co-regulatory model with recognised organisations to assess the suitability of practitioners for registration, and a statutory authority to manage the register and conduct compliance activities.

3.3 Cost of a registration scheme

The potential cost of not applying registration to all professional engineering services is significant. The NSW Government is striving to reduce the risk of buildings being evacuated or left uninhabitable, reduce the risk of infrastructure like bridges being unsafe, and reducing the risk of 'everyday living' being disrupted by failures in utilities like power and water supply.

In comparison with the costs to the community involved in major building failures, the cost of instituting a comprehensive registration scheme for engineers is very low. The three main cost components are as follows:

1. **Cost to government of setting up a scheme:** Victoria is the latest state to develop a process to set up a comprehensive compulsory registration scheme for professional engineers and passed a bill to do this in August 2019. In that state's 2018-19 budget, \$5.9m was allocated to fund the creation of a scheme, spread across two years. This equates to less than the cost of seven average Sydney homes.²
2. **Cost to government of managing the scheme:** In QLD, a comprehensive registration scheme has been in place since 1929. It is administered by the Board of Professional Engineers Queensland (BPEQ). The BPEQ's annual report for 2018/19 notes that it operated on a surplus of \$0.9m. Registration is self-funding.
3. **Cost to the profession of attaining and retaining registered status:** Individual engineers will incur costs associated with:
 - a. **One-off assessment fee:** Using the QLD model as an example and the fees applied by Engineers Australia if it is used as the assessment provider, the *once-only assessment* fee is less than \$600. For anyone who is already registered in QLD or Victoria, this cost is not relevant due to the provisions of the *Mutual Recognition Act* which entitles an individual to have their registered status recognised across borders.
 - b. **Regular registration fee:** the registration fee may be payable at periods that can be determined by Government but could be annually or every 3 or 5 years. Using QLD as the example, the current annual registration fee is \$232.74.
 - c. **Continuing Professional Development (CPD):** responsible engineers already undertake CPD, so costs associated with CPD will only be a new cost for anyone who is not already doing the right thing (that is, not already completing CPD). Engineers Australia estimates that the cost of doing 50 hours of CPD per year is about \$500. The cost is relatively low because CPD can be achieved in a wide variety of ways, most of which are either free, inexpensive or provided on-the-job. Simple examples include reading technical journals, work-based training, attending presentations and private study. Engineers Australia is just one of very many providers of CPD and our offerings are open to anyone—not just members—and a very large number of these cost just \$30 for non-members.

² CoreLogic, *CoreLogic Hedonic Home Value Index, August 2019 Results*, Monday 2 September 2019. Available at: <https://www.corelogic.com.au/sites/default/files/2019-09/CoreLogic%20home%20value%20index%20Sep%202019%20FINAL.pdf>. Accessed 14 October 2019.

3.4 Support for comprehensive registration

3.4.1 Engineers

Registration is a long-standing and high priority issue for Engineers Australia. It is often raised with members through e-Newsletters, social media, our monthly magazine “create”, and many engagements in mainstream media. It is therefore a topic of which Engineers Australia members are well-aware and on which they regularly engage with the organisation.

To prepare the first submission to the NSW Government in July 2019, as part of its building sector reform process, Engineers Australia sent an email to all 25,000 NSW-based members, alerting them to the NSW Government process and inviting them to either provide a response directly to the government, or to submit views for consideration by Engineers Australia.

Of those who responded, 91.5% expressed specific support for the introduction of a registration scheme for professional engineers. Just 3.4% expressed opposition. A further 5.1% expressed no view on the matter.

3.4.2 The general public

In addition to this process of consultation with our general membership, views were also sought from several specialist groups or committees within the membership: the leadership committees of our NSW-related divisions, the Structural College, Mechanical College and the Society for Fire Safety. All provided strong support for the introduction of compulsory registration of engineers.

To test the level of public demand for action, Engineers Australia commissioned polling nationally and in NSW. This showed that broad-based registration of engineers has very high levels of public support across all demographics. The poll of 1,222 people aged 18 years and older was conducted on 18-23 July 2019.³ It asked:

“Now a question about engineers in Australia. Engineers are involved in a range of things such as designing and building residential towers, making public infrastructure like bridges and roads, or delivering manufacturing and high-tech innovation. Do you think engineers in Australia should, or should not have to be registered in order to practice, in the same way as other professions such as architects, doctors and lawyers?”

Nationally, 88% of respondents answered that, “Yes, engineers should have to be registered.” Just 4% answered “No, should not have to be registered” and 8% answered “No opinion / can’t say.”

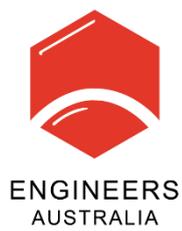
NSW respondents showed even higher levels of support: 91% support, 3% oppose and 6% can’t say.

Public support for broad-based and compulsory registration of engineers is incredibly high. When the results are broken down to various demographics, support never drops below 82%. If the NSW government legislates for a broad-based statutory register for engineers, it will have the support of city and rural voters, those on high and low incomes, men and women, and people of all age groups.

4. Contact details

Thank you for the opportunity to provide feedback in response to the draft Building and Development Certifiers Regulations 2019. To discuss the contents of this submission further, please contact Jonathan Russell, National Manager for Public Affairs, at JRussell@engineersaustralia.org.au.

³ The poll was conducted for Engineers Australia by OmniPoll. The poll was conducted nationally among 1,222 people aged 18 years and over. Respondents were drawn from the online consumer panel managed by Lightspeed Research, OmniPoll's online partner. Sample quotas were set for each state, city and regional area, along with sex and age. To help reflect the overall population distribution, results were post-weighted to Australian Bureau of Statistics data on age, sex, area and highest schooling.



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