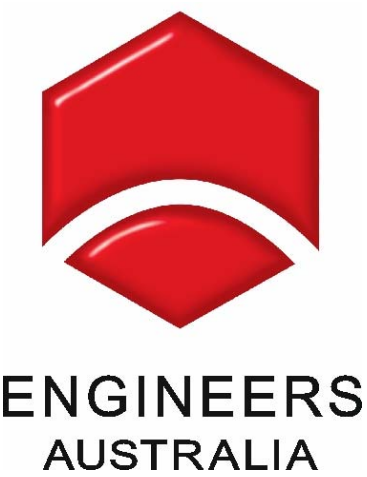
# Second Submission to the Productivity Commission Review of National Competition Policy Arrangements

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# 1. Introduction

Engineers Australia is the peak body for engineering practitioners in Australia and represents all disciplines and branches of engineering, including information technology. Engineers Australia has over 75 000 members Australia wide and is the largest and most diverse engineering association in Australia. All members of Engineers Australia are bound by a common commitment to promote engineering and facilitate its practice for the common good. Engineers Australia welcomes the invitation by the Productivity Commission to comment on the review of National Competition Policy (NCP) arrangements.

# 2. Infrastructure

## 2.1 Energy

For a national energy market to function efficiently and effectively, competition between different energy resources needs to occur. As a result of NCP, the Council of Australian Government's (COAG) National Energy Policy already recognises the need for competition between different energy sources. The National Electricity Market (NEM) is an attempt to establish a national framework for electricity market development. This is also being considered for natural gas energy markets in Australia.

Future NCP reform agendas could focus on supporting the reduction of energy consumption and more sustainable energy practices. This could move the energy agenda beyond one that is simply about creating competition and reducing prices, towards a more sustainable energy future. There is therefore a role for COAG to drive the development of a national approach to energy sustainability including greenhouse gas abatement. Engineers Australia believes there are four areas that need to be addresses. These are:

A. Establishing a national carbon trading market;
B. Improving coordination and monitoring of energy efficiency programs;
C. Pricing of electricity to reflect the cost of infrastructure maintenance and development; and
D. Improving the efficiency of retail price including installing interval meters for consumer demand management

*A. Establishing a national carbon trading market*

Carbon trading markets involve providing incentives for industry sectors to reduce their greenhouse gas emissions. Currently, only one carbon trading market is in operation in Australia, *The NSW Greenhouse Gas Abatement Scheme*, which started operating in January 2003. This scheme works by offering abatement certificates to all holders of NSW electricity retailer licences. Licence holders can engage in a range of practices to reduce their emissions such as establishing tree plantations to create carbon sinks or improving energy efficiency. Other States and Territories including Victoria and South Australia are considering the option of joining the NSW scheme.

The Federal Government has recently abandoned its commitment to establish a national carbon trading market, citing difficulties with developing a program and its potential economic impact. Engineers Australia believes that this program should not have been abandoned and that there is a legitimate need for the establishment of a national carbon trading market rather than a state based and piecemeal approach.

### *B. Improving coordination and monitoring of energy efficiency programs*

There are already several programs that are establishing national benchmarks for energy efficiency. The Mandatory Energy Performance Standards (MEPS) is providing national energy efficiency standards on a range of energy appliances such as refrigerators and air conditioners. Engineers Australia supports the expansion of the MEPS program.

In the building sector, the Australian Building Code Board has established energy efficiency standards for residential homes and commercial buildings that are being adopted by States and Territory Governments.

Despite this, there are still a number of programs that are not coordinated or monitored on a national level such as State programs for energy efficiency in transport and energy smart appliance programs. This also includes programs that encourage the reduction of greenhouse gas emissions such as state based renewable energy programs.

As part of the coordination of programs, Engineers Australia believes that national targets should be established for energy efficiency. These targets could also form part of sustainable city development strategies in all States and Territories.

### *C. Pricing of electricity to reflect the cost of infrastructure maintenance and development.*

The Engineers Australia National Committee for Fuels and Energy paper *Towards and Energy RD&D Policy for Australia* calls for innovation in supply and demand side energy development in Australia including:

- New coal plant and retrofits of old plant need to use advanced technologies such as IGCC that deliver energy at significantly higher efficiencies than current pulverised fuel plant. Amongst these technologies are several that could lead to the use of coal as a source of chemicals, as well as energy.

- Application of small to medium size technology power generators located close to markets need to be encouraged as they are also well-suited to serving an increasingly differentiated market and allowing improvements in efficiency particularly where cogeneration is utilised to provide heating, cooling and electricity. This would also enhance security of supply.

- Improving commercial and residential energy efficiency through the innovation in sustainable building design and energy efficient appliances.

Energy demand, particularly for electricity, is rising with ABARE forecasting that Australia's electricity demand will grow by 47 percent by 2020 (2.3% per annum). Energy markets are also becoming more diverse and demanding with IT and financial companies in particular requiring increased amounts of high quality and reliable power. This increased pressure is working to create considerable fluctuation in daily and seasonal demand for power with major peaks coinciding with high summer temperatures.

Though our power stations are amongst the best in the world there remains significant potential to improve their efficiency and reduce GHG emissions. Engineers Australia believes that given the current and ongoing demand for more electricity resources, initiatives for improving the efficiency of energy use and introducing demand management should be a key focus of then national electricity market.

*D. Improving the efficiency of retail price including installing interval meters for consumer demand management.*

Interval meters monitor the level of electricity brought by individual consumers. They provide information on the amount of energy used during a particular period of the day, such as peak periods of demand. Interval meters could contribute to energy efficiency by encouraging consumers to save money through restricting their energy use and installing energy efficient appliances. The *Energy Market Review Report*, released by the Federal Government in 2002, calls for the installation of interval meters in residential homes. Engineers Australia supports this recommendation.

## 2.2 Water

NCP included a package of reforms aimed at achieving environmentally sustainable and economically viable water use and management. The focus is not on increased competition but on increasing sustainable use of a vital national resource, by making pricing better reflect both the market value and cost to the environment.

Engineers Australia is a strong supporter of NCP policy in relation to water, particularly the Council of Australian Government's (COAG) National Agenda for Water Reform. This agenda has been established to gain agreement between State and Federal Governments with regard to the management of water resources in urban and regional areas. The implementation of this agenda will significantly assist urban and regional areas with sustainable water management.

Engineers Australia also supported the Productivity Commissions recommendations that the COAG water reform process should give close attention to developing ways to achieve more effective management of environmental externalities. Under this recommendation, COAG should consider the following issues:

A. Reducing land clearing;

B. Innovation in sustainable agriculture; and
C. Exploring new opportunities for cost-effective water recycling

### *A. Reducing land clearing*

Land clearing has become a controversial issue in Australia because of the difficulty in gaining agreement from different levels of government about reductions. The Wentworth Group of scientists report, *Blueprint for a living continent*, states that broad scale land clearing of native vegetation is a major driver of ecosystem damage that leads to dryland salinity, declining water quality and species extinction.

In 2001, an estimated 687,000 hectares of bushland was cleared across Australia. Without a change in policy the report estimates that by 2050, 17 million hectares of Australian farmland and remnant bushland will be at risk from salinity. There has also been a major impact on waterways with 50,000 kilometres of streams being degraded by soil erosion.

The continuation of broad scale land clearing of native vegetation will have a major impact on crop production and this could increase the cost of agricultural produce and affect exports. *Blueprint for a living continent* suggests paying farmers to restore their land and reduce the effects of erosion and salinity. This would involve State and Federal Governments providing subsidies or grants for farmers to replant trees and providing additional assistance for replanting native vegetation.

Engineers Australia supports reducing broad scale land clearing of native vegetation in Australia, and providing some assistance to farmers to rebuild native vegetation. This will help protect surface and groundwater systems from the impact of soil erosion and salinity and improve the health of river catchments and wetlands.

Engineers Australia believes that reducing land clearing needs to become an important part of water management plans established through the National Water Initiative.

### *B. Innovation in sustainable agriculture*

Sustainable agricultural development is fundamental to water resource management The *Blueprint for a living continent* report establishes a series of criteria for sustainable agricultural practice including:

- Commercial tree production for large areas of the current crop and pasture zones of the continent to produce fruits, nuts, oils, pharmaceuticals, bush foods and forestry products such as speciality timbers, charcoal and biomass energy.

- New farming systems made up of the best current annual and perennial plants, the best agronomy, companion plantings, rotation and combination.

- New forms of cereals, pulses, oilseed and forages selected or bred for characteristics that substantially reduce deep drainage and nitrogen leakages.

In summary, the report calls for significant changes to farming practices in Australia and the formation of clear guidelines for sustainable agricultural development in the future. Engineers Australia supports the *Blueprint for a living continent* guidelines for sustainable agriculture.

Engineers Australia believes that long term investment in sustainable agriculture should be incorporated into the *National Water Initiative* framework as part of future water management plans.

*C. Exploring new opportunities for cost-effective water recycling*

Engineers Australia believes COAG has a key role to play in encouraging State and Territory Governments to develop water recycling programs as part of their demand management strategies. There are also a need to place greater emphasis on wastewater and stormwater recycling for existing residential and commercial buildings rather than simply focussing on greenfield developments.

Engineers Australia supports the Productivity Commission recommendation that all governments should complete outstanding NCP requirements under the National Water Initiative.

## 2.3 Transport

Engineers Australia is concerned about health, congestion, resource use (particularly fuel use), costs and atmospheric change and air pollution associated with Australia's transport system.

There are opportunities to achieve greater economic and environmental efficiencies and overcome the current lack of transparency in the pricing of transport facilities and services. NCP has a role to play in supporting increased efficiencies in the transport sector. There still remains scope for a future reform agenda to review taxation and fiscal instruments to encourage sustainable transport by accelerating the introduction of user pays pricing regimes to reflect and communicate the full environmental, health and economic costs of transport systems, fuels and choices. The Productivity Commission has recommended that a review process be undertaken to determine the needs of the passenger transport system. Engineers Australia suggests that this review consider:

- the early identification of future public transport corridors as a priority in transport planning;
- the development of integrated transport networks to provide better links between the different nodes of public transport such as trains, buses and trams;
- industry, innovation and research and development policies and commitments tosupport the development of cleaner transport fuels and technologies;

- options for additional charges or taxation that reflects the level of greenhouse gas emissions produced by private transport, such as congestion pricing ;

- comparative energy consumption and greenhouse gas emissions are compared when assessing competitive transport project proposals; and

- a renewed focus is taken on innovation in energy efficient transport development including the development of cleaner transport fuels such as hydrogen fuel cell technology, ethanol and CNG vehicles.

### 2.4 Regulated Infrastructure

Regulated infrastructure providers will need to focus on the security implications surrounding investment and maintenance of existing facilities and in the expansion of networks. There is a need for consistent principles to guide regulators. To this end, the Productivity Commission should consider the use of Security Impact Statements. For significant critical infrastructure and built environment elements, producing a Security Impact Statement would be a powerful way for security to be incorporated into designs. A Security Impact Statement could be developed along similar lines to Environmental Impact Statements but with a focus on robustness and reliability issues. This would help prevent developments proceeding that contain poor security practices such as inadequate lighting, constricted egress points and limited emergency services access paths. The statement would contribute to reducing the whole spectrum of crime including vandalism, theft, assault and terrorism.

Regulation Security Impact Statements should also be considered. Current Commonwealth policy requires that a Regulation Impact Statement (RIS) be prepared for regulatory proposals that affect business or restrict competition. An RIS provides a consistent, systematic and transparent process for assessing alternative policy approaches to problems. It includes assessment of the impacts of the proposed regulation on different groups in the community, including a specific focus on small business. For any proposal that requires legislative change, the RIS must be tabled in Parliament, thereby making it available to the public. By expanding the trigger of the RIS process from " regulatory proposals that affect business or restrict competition" to "regulatory proposals that affect business, restrict competition or security", the RIS process could significantly contribute to ensuring that new regulations advance rather than hinder security and provide guidance to regulated infrastructure providers.

## 3. NCP and the engineering profession

NCP provides for the possibility that different governments might evaluate similar issues differently and thus reach different conclusions on an appropriate approach. Given that Australia is basically one national market it is important that uniform or consistent regulation exists across jurisdictions. Consistency in regulation across jurisdictions is likely to benefit the community through the removal of divergent regulatory imposts on businesses and service providers, which would ultimately flow on as reduced prices to consumers.

NCP was to facilitate legislative consistency through the operation of national reviews. Twelve national reviews were originally identified and while nine have been completed, the relevant governments still need to undertake the necessary action in many cases.

Engineers Australia is of the view that the State based legislative review process may have led to some loss of consistency between States in legislation governing individual professions, in particular engineering. It seems that different interpretations of NCP objectives and application of the public interest test has resulted in different outcomes from State based review processes. While the NCC has encouraged jurisdictions to coordinate review processes impacting on the professions, this has only occurred on two occasions, for architects and pharmacists.

The infrequent use of national reviews has also resulted in a duplication of resources, not only for the multiple government agencies undertaking the reviews, but for professional associations (and others) who needed to respond to multiple review processes.

The engineering profession, like many other professions, was looking for the NCP reform process to address deficiencies in legislation regulating the professions. Ultimately, it was hoped that the reform process would lead to a national registration system or the mutual recognition of legislative requirements between States.

The legislative review process under NCP required the engineering profession, and professions generally to question barriers to entry, barriers to practice, licensing restrictions and ownership of practice. This debate demanded that an understanding of what constitutes a profession and what constitutes the public interest needed to be established. Engineers Australia believes this has not fully occurred.

Engineers Australia has been advocating for some time for the terms “registered professional engineer”, “professional engineer” and “engineer” to be legally protected and defined through legislation. The significance of this is that anyone can currently call themselves an engineer without any qualifications or experience. This situation puts the public at risk.

There is purpose to a registration system in that it guarantees the public that they are employing an individual or company who holds themselves out to have engineering expertise. Permitting others to call themselves engineers and to hold that they have expertise without the associated education and training simply exposes the public to unexpected and unwanted risks. The central purpose of a registration system is to provide protection for the consumer and the public, they are not designed to provide protection to the engineer. This is why Engineers Australia supports the co-regulation of engineers in Australia in areas related to public health and safety.

Engineers Australia has supported removing constraints that inhibit competition, but is also concerned that the community continues to be provided with the protection it is entitled to expect, from unqualified and inadequately experienced practitioners. Restricting areas of practice to persons holding particular qualifications is one means to provide protection to the community. In the case of engineers, this is achieved in

many different ways and in many specialised areas by the various State and Territory governments.

It is unfortunate that the legislative reviews related to engineering were undertaken on a State and Territory basis and were not looked at on a national level. While Queensland has retained and strengthened its Professional Engineers Act after the NCP legislative review, engineering continues to be poorly regulated throughout the rest of Australia.

There would be benefits to both consumers and professionals from pursuing opportunities for national registration arrangements for the engineering profession. There are a number of benefits, in putting national registration firmly on the agenda in any future reform process including:

- Pursuing consistency of State legislation as an important objective towards the adoption of best practice principles, consistent with NCP;
- Providing freedom for professionals to practice interstate if registered anywhere in Australia;
- Single registration fee, irrespective of State or Territory;
- Administrative efficiencies particularly if an outcome was a single registration authority;
- Full cost recovery may be a viable option as a result of administrative efficiencies; and
- The health and safety of the community would be protected from unqualified persons offering professional services.

It would seem that if NCP were to operate effectively for the engineering profession, moves would have been taken to support the consolidation of engineering regulation into a mutually compatible system between all States and Territories in Australia. The Productivity Commission must consider these issues as a priority.

## 4. Conclusion

The Productivity Commission has yet to address many of the concerns facing the engineering profession regarding NCP and as a result, the full range of potential benefits offered by NCP reform remains unrealised, particularly in areas related to regulation of the engineering profession and environmental sustainability.

Engineers Australia believes that it is the responsibility of all those involved to monitor the effects of the reforms to ensure that the benefits are delivered, and that problems are rectified when they occur. Reforms must continue and the concerns of the professions will need to be addressed in the short term if NCP is to be judged as a program that had successful outcomes for the engineering profession and wider community.