



## Competition Reform – transforming the industry

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### Introduction

Comprehensive reforms are being applied to the utility sector that, ten years ago, would have seemed unimaginable. Since reform packages in electricity, gas and water were brought within the National Competition Policy (NCP) framework in 1995, a great deal of work has been done to make these industries more effective and efficient. The benefits are now starting to flow through to consumers, businesses and the environment, and will continue to do so, provided some remaining challenges can be met.

As part of the NCP framework, the Council is required to report to the Commonwealth Treasurer on implementation progress by the States and Territories. The Council's assessment informs the Treasurer's decision on competition payments to the jurisdictions. The Council is now completing its third report, and while the contents must remain confidential pending the Treasurer's decision on competition payments, I can inform you that progress in electricity, gas and water reform has been, in the main, strong. But implementation in some areas has proved more challenging than originally envisaged. Shortly, I will outline some of the key issues.

## Three aspects of utility reform

Essentially, there are three strands to NCP reform in the utilities sector:

1. generic NCP reforms covering all sectors of the economy;
2. the national access regime set out in Part IIIA of the Trade Practices Act; and
3. specific industry reform packages for the electricity, gas and water industries.

### 1 The generic NCP reforms

A central element of the generic NCP reforms is the *review of anti-competitive legislation*. Under clause 5 of the Competition Principles Agreement (CPA), governments have committed to reform legislation that restricts competition unless the community benefits of the restriction outweigh the costs. In gas and electricity, these commitments are reinforced by specific obligations in the industry reform packages.

In gas, for example, an important area has been legislation covering the upstream gas industry – for example, regulations covering the allocation of exploration permits and rules for developing gas fields. In the past, such regulations have helped to confer monopoly status on particular gas producers in some gas basins.

A 1998 report by the Upstream Issues Working Group, UIWG prompted a national review of the Petroleum (Submerged lands) Acts of all jurisdictions. In addition, most States and Territories have conducted, or are conducting reviews of onshore acreage arrangements under their own petroleum legislation.

The Council is monitoring the independence and transparency of these reviews and the extent to which implementation reflects UIWG reform principles. The Council considers that the national review was soundly designed and that its recommendations generally meet UIWG principles, although some outcomes are still to be determined. The reviews of State legislation have also brought some significant progress. For example, South Australia has introduced a new Petroleum Act that incorporates acreage management principles proposed by the Australian and New Zealand

Minerals and Energy Council (ANZMEC), and the Government has focused on ensuring the entry of new explorers in the Cooper Basin.

Similarly, the Victorian review introduced a number of changes to remove obstacles to exploration and production. The new Act provided that successful bids must be chosen principally on the basis of the respective merits of work programs and the likelihood that the programs will be conducted, combined with more effective relinquishment and re-evaluation provisions. In addition, the Act provides for increased transparency in award and appeals processes.

A second generic NCP reform, the *structural reform of government monopolies*, has been particularly relevant to the utilities sector. In electricity, for example, we have seen contestable activities separated from regulatory aspects of the industry and the introduction of greater competition between electricity businesses in generation and retailing. Similar reforms have occurred in gas. The structural separation of the old energy monopolies was crucial to the development of competitive markets.

A third generic NCP reform is the introduction of *competitive neutrality* so that privately owned businesses can compete with those owned by government on an equal footing. Some concerns have been raised about competitive neutrality with regard to state-owned electricity businesses. It is important to note that complaints mechanisms are now in place in all jurisdictions to hear such concerns and the Council urges any private businesses concerned by possible infringements to report them to the relevant body. All complaints raised (and responses by Governments) are notified to the Council as part of each jurisdiction's annual reporting obligations.

## 2 The National Access Regime

While regulatory reform, structural reform and competitive neutrality have injected greater competition into contestable segments of the energy market, competition is not feasible in markets for bottleneck infrastructure (such as electricity grids) – yet parties need to use such infrastructure to make competition viable in areas such as electricity generation, gas production and energy retailing.

To address this, the NCP reforms introduced a national access regime, set out in Part IIIA of the Trade Practices Act. The regime gives parties a legal right to share the use of certain infrastructure services of national significance on reasonable terms and conditions. It applies only to the services of facilities where:

- it is economically efficient for only one facility to service the market – that is, development of another facility would represent a wasteful use of resources; and
- businesses in an upstream or downstream market require use of the facility in order to produce goods and services for customers. In this situation, the facility owner is in a position to exercise market power in a dependant market, with adverse consequences for consumers.

The industry reforms in gas and electricity include industry-specific access codes for the services of transmission and distribution facilities. These codes operate within the broad Part IIIA framework and have been in place for some time. I will return a little later to talk about some current issues raised by the access codes.

Part IIIA itself is currently the subject of an independent review by the Productivity Commission. The Commission's Position Paper (PC 2001) recommended some quite sweeping changes to the regime's architecture, including changes to the criteria for declaring infrastructure for access. While the Council accepts that some aspects of Part IIIA require fine tuning, it has expressed concern at some of the Commission's proposed changes. The Council's response to the Position Paper is now available on the Council's website at [www.ncc.gov.au](http://www.ncc.gov.au)

### 3 Industry reform packages

The 1995 NCP agenda incorporated pre-existing reform packages in electricity, gas and water. Governments have refined certain aspects of the industry packages since 1995, including changes to some implementation dates.

#### Water

As for gas and electricity, the water reforms were driven, in part, by the need to improve service provision to consumers. But the water reforms are also driven, more significantly, by environmental imperatives. There is now virtually universal acceptance that our traditional approach to managing water was unsustainable. Until recently, we viewed water as a 'free good' that would last forever. That philosophy has been reflected in some intriguing practices, including the fact that we hose about six times more water onto our lawns than what we actually drink. And in a drought prone

environment, over 70 per cent of Australia's water use is devoted to agricultural irrigation, including water-intensive flood irrigation.

We have over-used and mismanaged our water resources to such an extent that many natural waterways and much previously productive land have suffered serious – and in some cases, irreversible – damage. Among the impacts are salinity, river degradation and pollution, biodiversity loss and soil degradation. Groups as diverse as the National Farmers Federation and the Australian Conservation Foundation have been moved to describe the situation as a 'crisis.'

The NCP water reforms are designed to both halt the degradation of this natural resource and to promote an ecologically and economically sustainable approach to the way we use water. Water reform (in conjunction with such measures as the national action plan on salinity and water quality) is an essential component of a range of national initiatives seeking to avoid further and more extensive damage.

The urban water reforms include a shift to pricing that recovers the costs of supply (including environmental costs), and sets charges according to the amount of water used; in combination, these reforms offer clear incentives to households and business to use water wisely. There is no question that the community is responding. The introduction of pricing reforms in Queensland resulted in water usage falling by as much as 20 per cent within a year (WSAA 1999).

In rural Australia, the reforms are designed to ensure that Australia makes best use of its scarce water resources, to address the environmental problems caused by excessive allocations of water and to ensure the long term viability of irrigated agriculture. The reforms include:

- the introduction of water property rights coupled with trading rights to encourage farmers to trade water to activities that bring the highest returns to the community. For example, the same megalitre of water that produces a tonne of rice may provide five to twenty times the financial return if applied to wine grapes;
- caps on water allocations, including allocations to the environment to promote long-term sustainability. The caps are accompanied by better catchment management policies and action to address stressed and over-allocated rivers to safeguard the integrity of waterways.
- requiring that new investment in dams and other water infrastructure be undertaken only after appraisal demonstrates economic viability and ecological sustainability.

While urban water reform is well advanced in most jurisdictions, rural water reform has proven more challenging, and the original implementation date of 2001 has now shifted out to 2005. Despite this, progress in rural water reform has been impressive. All jurisdictions have reform paths in place for pricing reform, the setting of environmental allocations and the underpinning frameworks to facilitate water trading. Indeed, embryonic water trading arrangements are continuing to develop, with some interstate trading occurring between New South Wales, Victoria and South Australia.

Nonetheless, this area of NCP reform has raised tensions between the goals of:

- getting reform in place as quickly as possible;
- devoting time needed for meaningful consultation with interested parties and developing optimal models for reform; and
- accommodating the vital ongoing interests of farmers and other water users in the transition to the new arrangements, including through structural adjustment assistance where needed.

While the Council is generally satisfied with reform progress, and recognises that in some areas this progress to date has been extensive, there remains a great deal to be done.

The fundamental benefit of water reform to rural users is a move to a sustainable system which will support, as oppose to undermine, the long term viability of Australian agriculture – an enterprise which is fundamentally dependent on the health of our land and waterways.

## The energy reforms

The energy reforms were a response to traditional industry structures dominated by vertically integrated monopolies that provided high-cost, inefficient services. The reforms sought to open potentially contestable segments of the industry to competition, and to provide efficient regulation of the natural monopoly bottlenecks through third party access.

### Electricity

The centrepiece of the electricity reforms is the creation of a National Electricity Market (NEM) in south-eastern Australia, establishing a single

wholesale market for electricity. The market allows retailers, aggregators and end users to bid against one another for electricity sold into the wholesale pool by competing generators, and for retailers, aggregators and other producers to bid for customers.

The market is supported by:

- structural separation of vertically and horizontally integrated electricity monopolies;
- a National Electricity Access Code, providing non-discriminatory access to the transmission and distribution network;
- the removal of legislative barriers to entry in electricity generation and retail supply; and
- the removal of legislative barriers to interstate and intrastate trade in electricity.

Currently, the NEM comprises New South Wales, Victoria, Queensland, South Australia and the ACT. Tasmania is set to join once it is interconnected with Victoria.

The National Electricity Market has been a remarkable achievement by Governments. The market has already conferred enormous benefits to medium and large businesses. For example:

- the Australian Bureau of Agricultural and Resource Economics (ABARE) has estimated that Australia's GDP by 2010 will be \$2.4 billion higher (in 2001 prices) than in the absence of reform, with the net present value of benefits of reform between 1995 and 2010 totalling \$15.8 billion in 2001 prices (Short et al. 2001, p. 84).
- a July 2001 report by the International Energy Authority states that real electricity prices have decreased by 10 per cent on average in the last ten years, with benefits across the economy amounting to at least \$1.5 billion in the year 2000 (IEA 2001).

While households cannot yet choose their electricity supplier, they have nonetheless received some benefits from improved service provision. For example, a recent determination by Victoria's Office of the Regulator-General reduced distribution charges by up to 22 per cent from 1 January 2001, saving households up to \$65 on annual electricity bills. But there are signs in

some regions that deficient competition in the wholesale market may offset – at least in part – benefits from more efficient service provision in transmission and distribution services.

Despite the significant economic benefits over the last few years, there are many critics of electricity reform. The criticisms come against a background of rising energy costs world-wide (driven by rising oil prices and demand for energy) and an erosion of excess capacity in domestic generation (due to rising demand). In combination, these factors are limiting opportunities for very low wholesale electricity prices. Some have suggested that the electricity market is following the path of the high profile failures in California, and that governments should move to re-regulate the industry.

There is no doubt that the National Electricity Market is approaching a watershed in its development and decisions made by governments over the next six to twelve months will be crucial. Certainly, this is not the time for panic-driven responses that could wipe out the substantial achievements to date. The Council believes that the basic market framework now in place – including competition between generators and retailers of electricity, with shared use of transmission and distribution infrastructure – provides the best opportunity for an efficient electricity industry and competitive prices to consumers in the long run.

Nevertheless, there is evidence that the market is not working as well as it should. The concept of a ‘market’ signifies the existence of competition. For a national electricity market, that competition should occur in the generation and retail sectors, both within and between regions. Sustained large inter-regional differences in electricity prices are inconsistent with the notion of a competitive national market – though some variations can be explained by differences in generation and transportation costs between regions (taking into account transmission losses and capital costs).

The problems we are seeing reflect a need to *refine* market arrangements, but not to overturn them. The fundamentals are right; it is the detail in some areas that needs further work. I will comment on four areas in particular that require attention.

## 1 Improving inter-regional competition

While New South Wales and Queensland currently have excess generation capacity, South Australia (and to a lesser extent, Victoria), now face shortages. This has resulted in some significant price differences between regions. In an efficient market, this would be expected to stimulate investment in interconnectors between regions. Unfortunately, at least one major interconnection proposal (between New South Wales and South Australia) has been stalled, in part by deficiencies in the rules for approval.



While these rules have since been modified, the Council remains concerned that further work may be needed to streamline regulatory approvals processes.

## 2 An efficient institutional framework

Experience suggests that the current institutional arrangements between the National Electricity Code Administrator (NECA), the National Energy Market Management Company (NEMMCO) and the Australian Competition and Consumer Commission (ACCC) are at times cumbersome, with degrees of tension and overlap between roles.

The Council notes that regulatory arrangements in the NEM are to be reviewed by CoAG and by the States. In the Council's view, these processes could usefully consider firstly, clarifying accountabilities for regulation, market performance and market development; and secondly, ensuring appropriate levels of regulatory and compliance costs.

## 3 Household contestability issues

The Council understands that metering and customer transfer arrangements at the household level raise a number of complex issues. There are also issues of raising consumer awareness of what contestability is about. While some jurisdictions are making a concerted effort to address these challenges, others appear to be adopting a 'wait and see' attitude that may not ultimately serve the interests of consumers.

Similarly, the Council notes that vesting contracts remain in place in a number of jurisdictions. While vesting contracts can help manage the risks faced by retailers of being squeezed between rising wholesale prices and regulated retail prices, such contracts may interfere with efficient market signals once full retail competition is in place.

## 4 Competition between generators

Increasing pool prices in some regions of the NEM (and price differentials between regions) raises the question of whether the structure of the generation market is sufficiently competitive to deliver efficient outcomes. Of course, price increases may partly be a reflection of capacity constraints being reached. In this scenario, price rises provide necessary signals for new investment in electricity generation capacity.

But high regional prices could also indicate that the generation market is thin, giving individual generators market power. A recent study by ABARE lends weight to this view. The study reports that "in the recent past, in certain months up to half of the price paid for the wholesale supply of

electricity in New South Wales, Victoria and South Australia may be attributable to strategic behaviour in the market” (Short et al. 2001, p. 89).

While the generation industry is horizontally separated in all NEM regions, the Council considers that unbundling in many jurisdictions was the minimum necessary for a competitive market. Indeed, the Council would be highly concerned by any move to *reduce* the number of generating companies in any jurisdiction. In particular, where generators are in public ownership, the Council would regard any such reduction as undermining structural reform commitments. The Council would also be concerned by any increase in government intervention in market outcomes, including intervention in the type or level of capacity or in the operation of generating companies.

The Council notes that NECA, in response to market concern with the behaviour of some generators, is reviewing bidding and rebidding strategies and their effect on prices. The review is considering options for additional safeguards against potential abuses of market power.

## Review of NEM arrangements

At its June 2001 meeting, CoAG reaffirmed its commitment to electricity reform and agreed to establish a Ministerial Council on Energy to examine energy market directions, including the harmonisation of regulatory arrangements and opportunities for improved interconnection and security arrangements. CoAG also noted the establishment of a NEM Ministers Forum to consider, among other things, impediments to interconnection and regulatory overlap, transmission pricing, market behaviour, and the effectiveness of regulatory arrangements.

The Council supports the review of NEM arrangements. Governments have a clear role, from an economic policy perspective, in ensuring that the NEM architecture remains efficient and effective. It is also appropriate for governments to consider the social implications of electricity supply and consumption.

For example, concerns have been raised that the NEM has exacerbated environmental problems by increasing coal-fired generation. It is open to governments to respond with appropriate regulation, tax or subsidy measures to correct for these environmental costs. Indeed, the NEM principle of separating generation from other parts of the supply chain makes this possible. New South Wales, for example, has introduced measures to allow consumers to choose ‘green’ electricity without impeding the operation of the market.

But governments should not become involved in the day-to-day operation of the market. Some price volatility in the short run is an inevitable – indeed efficient – aspect of the market’s operation, as it encourages appropriate supply and demand responses. Indeed, there is some evidence that rising wholesale prices are already encouraging expansion of, and new entry in, generation activities. Price changes are also affecting the way businesses use electricity. These developments are essential to ensuring competitive outcomes in the long run.

Market refinements along the lines I outlined earlier should reinforce these incentives, but overly intrusive government action risks blunting them. The primary cause of problems in California was not the operation of a competitive market – rather the problem has been inadequate market incentives to encourage new investment in response to strong demand, and inadequate price signals to influence the supply of, and demand for, electricity.

## Gas

The gas reforms focus on improving efficiency in the gas transportation sector, with the National Gas Pipelines Access Code now in place in all mainland jurisdictions. The Code provides for third party access to spare and developable capacity in transmission and distribution pipelines, allowing gas users to contract for gas supply directly with an upstream producer of choice, and then ship the gas on reasonable terms and conditions. In this sense, the access reforms promote competition both in upstream gas production and in energy retailing.

Supporting the access reforms have been comprehensive structural reforms to break up the old vertically integrated gas utilities into separate businesses providing transmission, distribution and retailing services. In addition, legislative and regulatory barriers to interstate and intrastate trade have been removed or are being phased out.

Gas reform has been a major success story, with the original NCP reform agenda now largely in place. The only significant outstanding matter is the extension of competition in gas production and retailing to the household sector. The delay here reflects similar issues to those arising with regard to household contestability in electricity: the need to establish appropriate business rules enabling customers to select between competing suppliers. The central issues relate to:

- implementing information technology systems to handle customer billing and transfer;

- determining a cost-effective approach to metering gas use by small customers; and
- achieving consistency across jurisdictions and with the electricity industry, bearing in mind that parties selling gas to consumers may be multi-utility retailers operating in several States and Territories.

The operation of the Gas Code has raised concerns in parts of the energy industry that regulated access may be hampering efficient investment in new infrastructure.

The costs of access regulation stem from the intrusions it makes upon property rights. For example, the compliance costs for business in developing access undertakings for regulators can be considerable. These costs are inevitably built into access charges and may – in the case of a relatively small market – negate the benefits of regulation. More fundamentally, investment in marginal projects may be deterred if investors perceive regulators to be over-conservative or erratic in their approach to access outcomes, especially with regard to greenfields projects. A regulatory framework that is subject to frequent change can also aggravate investor uncertainty.

Balancing these concerns, it is also important to keep sight of the purpose of access regulation. When applied appropriately, access can open up competition in dependant markets, bringing lower prices and/or better service provision to consumers. In providing a means to avoid unnecessary duplication of infrastructure, it also allows a more efficient use of the community's resources. Those resources freed up from otherwise inefficient investment can be used in ways to advance community welfare – perhaps to build new hospitals or schools.

The Council plays a number of roles under Part IIIA of the Trade Practices Act in assessing what infrastructure services are covered by access regulation. The Council is coverage advisory body under the Gas Code, recommends to Ministers what services should be declared for access under Part IIIA, and vets the design of State and Territory access regimes.

In conducting these roles, the Council works from the presumption that, by nature, access regulation is intrusive, and should only be imposed where it promotes net economic benefits.

The Council gives careful consideration to balancing the benefits of access for potential infrastructure users against the costs to existing and potential infrastructure operators. It also aims to be responsive to the needs of governments and the wider community. In considering these trade-offs, the Council notes that regulated access under Part IIIA:

- is confined to a narrow range of infrastructure with natural monopoly characteristics;
- recognises the significance of existing contractual rights;
- ensures that regulatory and arbitration processes take into account the interests of infrastructure owners; and
- requires consideration of whether regulated access is in the public interest.

Having said that, it must also be conceded that the regulatory framework has not always worked perfectly. To some extent the long delay in building the New South Wales-South Australian electricity interconnector may be traced to flaws in the relevant rules. Perhaps it is not surprising that some deficiencies in such a complex regulatory framework will arise in the early phases of regulation before the appropriate refinements can be made.

But it is also apparent that the regulatory framework is behaving in a much more adaptable and forward-looking manner than some critics suggest. For example, the ACCC's decision on the Central West Pipeline recognised the inherent risks in greenfields pipelines by setting a return on equity in excess of 15 per cent and allowing the owner to earn higher rates through market expansion.

The Gas Code architecture provides for access regulation only where it is needed – that is in regard to natural monopoly pipelines where the operator is able to exercise market power in a dependant market. The Council observes these principles in regard to applications for coverage (and revocation of coverage) in its role as coverage advisory body under the Code.

The Council considered that a recent application regarding the Duke Eastern Gas Pipeline (EGP) raised a number of difficult issues. On the basis of the information available to it, the Council felt that the pipeline operator was able to exercise market power in a dependant market and that regulation would promote competition. On the basis of different information the Australian Competition Tribunal came to a different view, but affirmed the Council's approach to the application. In deciding not to award costs, the Tribunal noted that coverage of this pipeline was a matter on which there could be different points of view and legitimate differences of opinion. More generally, of 17 revocation applications received since 1999, the Council has recommended that coverage of 12 pipelines be revoked, recognising that the regulatory costs in each case would outweigh any efficiency benefits.

While getting the right balance between the competing interests of infrastructure owners, investors, access seekers and the wider community involves fine judgements, there is a growing body of evidence to suggest that the Gas Code is operating in the right zone. Application of the Gas Code has conferred price benefits to consumers, making gas a more attractive option for energy users and fuelling market growth.

At the same time, returns to pipeliners have remained attractive enough to fuel major interest in new pipeline development. Indeed, the twin reforms of the Gas Code – especially in relation to distribution pipelines – and regulatory reform in gas exploration have opened up new possibilities in gas production and pipeline development that are transforming Australia's gas industry.

There is unprecedented interest in the development of gas resources in Bass Strait, the Cooper Basin, the Otway Basin, the Timor Sea and elsewhere. The Duke Eastern Gas Pipeline, linking gas processing facilities at Longford in Victoria with consumers in Sydney, Canberra and elsewhere in New South Wales and Victoria, was recently completed. BHP has argued that construction of this pipeline was only made viable because of access rights under the Gas Code to the Sydney gas distribution network. Access was needed to ensure that gas carried through the transmission pipeline could find consumers in Sydney. Without access, BHP claimed, the \$450m project would not have been built (PC 2001, p.64).

There are competing proposals to build new pipelines linking gas fields in Victoria with consumers in South Australia, and linking gas fields in the Timor Sea with consumers in south-east Australia. Other pipeline proposals include linking Longford to Tasmania and gas fields in PNG to Queensland and possibly south-east Australia.

The gas industry will play an increasing role in meeting Australia's energy needs, in part because of the environmental benefits of gas-fired electricity generation. In this sense, a well developed and competitive gas industry is vital to Australia's economic and environmental future. On the evidence to date, NCP is playing an important role in stimulating the rapid development of a vibrant and competitive gas industry in this country.

## Conclusion

The reforms in electricity, gas and water are among the most far-reaching and important features of the NCP agenda. Critically, they have the potential to deliver major benefits to economic development and the

environment. The architecture for all three industry reform packages is in place.

In gas, perhaps the most advanced of the three, early outcomes have been overwhelmingly positive for the industry and for consumers.

In electricity, the structures are well in place and have delivered significant benefits to users over the last four or five years. Now is the time to address the remaining imperfections in the electricity market – to sort out the issues in interconnection, the institutional framework, contestability and wholesale competition – and ensure that the early benefits of reform are sustained.

In water, perhaps the most ambitious of all, the reforms are already changing the way people regard this scarce resource. New approaches to water pricing and charging in urban Australia are making people think more clearly about conservation, with wastage down by up to 20 per cent in some areas. In rural Australia, the challenges are significant. But environmental allocations to rivers and changes in the ways we use water now offer the chance to save our waterways, make water a sustainable resource and safeguard the livelihood of rural communities. Further, the trade of water allocations for irrigation provides the scope to substantially increase agricultural production using less water than today.

These are, I think you will agree, worthwhile pursuits.

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