justified. We have been asked to report annually to the Treasurer for three years. The first report is to be provided by the end of December 2003.

The government expects the reduced risk exposure resulting from the package of reforms, and the state and territory tort and legal systems reforms to be factored into premiums.

That is, the government expects the savings of reforms to be passed through to practitioners, their patients and the public. In this the Commission's job is to attempt to assess if this is actually happening.

The Commission's role in medical indemnity insurance is substantially different from its existing role in public liability and professional indemnity insurance. The existing role in public liability and professional indemnity deals with monitoring the effect of a particular set of reforms on changes in premiums. Essentially we are assessing the appropriateness of the rate of increase or decrease in premiums in these areas.

The new role in medical indemnity insurance is different. It involves assessing the level of premiums charged from both an actuarial and commercial perspective and assessing the effect of reform on premiums.

Conclusion

In conclusion, a realistic assessment is that much has been done to overcome problems and challenges confronting the insurance industry. That said, it is unrealistic to expect that insurance premiums will actually fall in the near future.

Premiums are likely to increase further, but that increase will, and should be moderated by recent initiatives by governments.

The Commission's responsibilities in this area are challenging and, given the stated intentions of government, are taken very seriously.

To a great extent the Commission relies on the cooperation of the industry to achieve the tasks that the government has asked it to perform. I am happy to say that to date the Commission has had a high level of cooperation from insurers in all of its insurance monitoring roles. I look forward to continuing this strong and harmonious effort.

New investment in the national energy market

Following is an edited version of a speech by Commissioner Ed Willett at the 14th National Power and Gas Conference on 18 August 2003.

Introduction

Understandably new investment attracts considerable interest. Adequate investment is a test of the success of Australia's energy market reforms. Without investment we will not be able to support the needs of industry and consumers.

New investment was a focus of the final report of the Council of Australian Governments' (COAG) energy market review in December last year and then again recently with the release of the National Electricity Market Management Company's (NEMMCO) 2003 statement of opportunities (the SOO), so it is not surprising this topic has again attracted much attention.

The focus of my speech is on the regulated electricity transmission networks and the gas transmission pipelines as the Commission regulates these areas of the energy market.

Investment in these services is also particularly important to the operation of energy markets. It is needed to cater for growth in energy demand and improved reliability. It also plays a central role in the development of competitive energy markets. New pipelines can create inter-basin competition, while electricity interconnection between states promotes competition between generators in different states.

In carrying out its regulatory functions the Commission strives to achieve the right investment outcomes by providing the appropriate incentives for investment while at the same time protecting the interests of the users of the regulated business.

Competitive energy prices are part of the investment equation. There is little point in promoting investment in transmission if we deter downstream investment in areas like manufacturing.

In the absence of regulation, high prices will affect business input costs and the ability of businesses to compete in Australia and overseas. Over time such prices will also deter downstream investment. An obvious example is the effect of energy prices on energy intensive manufacturing and resource processing sectors. For example, in the aluminium smelting and paper manufacturing industries energy costs are 20 per cent of production costs, while energy costs in brick manufacturing and steel production are 18 and 11 per cent respectively of production costs.

I will be discussing the Commission's approach to regulation, the investment outcomes in electricity and gas transmission and options the Commission is pursuing to further improve and promote investment.

The Commission's approach to regulation

The Commission carries out regulation of gas and electricity transmission assets under the requirements set out by the respective codes. To a large extent the Commission's approach to regulation is determined by the industry codes but in a number of important areas the codes require the Commission to develop guiding principles such as the draft regulatory principles (DRP) and the regulatory test under the electricity code.

In this regard the Commission's approach to setting CPI-X caps for gas and electricity is largely set out in its DRP document which uses a building-block approach to determine the CPI-X parameters. The aim is to provide service providers with the incentives to operate more efficiently and undertake needed investment.

Building-block approach

The building-block approach has been widely adopted by Australian regulators as it establishes an appropriate revenue requirement that fully compensates the regulated businesses for the efficient costs of providing the regulated service. The building-block approach in determining the X parameter in the CPI-X caps uses forward-looking efficient costs (as actual costs may reflect past inefficiencies of the regulated firm's business) and a benchmark rate of return.

If the regulated firm is able to outperform its benchmark rate of return it can keep the excess revenue and vice versa. This provides strong incentives for service providers to cut costs and improve efficiency. Service standard benchmarks combine to protect users from reductions in quality.

The regulatory framework also aims to provide an environment of certainty for investors. Our revenue and price cap decisions accommodate new investment by providing revenues to undertake proposed projects.

Investment outcomes

The best way to assess the effectiveness of the Commission's approach to regulation is to look at the evidence. What investment is being undertaken? Are these higher or lower than in the past and are they adequate.

The available data for electricity transmission businesses (TNSPs) suggests that the Commission's approach to regulation has delivered sound investment performance in that sector.

Electricity transmission

In electricity the data shows unprecedented levels of transmission investment. Around $3 billion in investment has been approved by the Commission over the five-year regulatory period. This will add 40 to 50 per cent to the existing asset base.

This is the amount accommodated in ACCC decisions, but evidence suggests outcomes will be higher.

Investment outcomes in electricity transmission

	TransGrid	Powerlink	SPI Powernet	ElectraNet	TransEnd *
Asset base-RC (millions)	$3,726	$3,300	$3,356	$1,585	$1,000
Asset base DORC (millions)	$1,935	$2,276	$1,835	$824	$604
Capex (millions)	$881	$1,040	$379 ^	$358	$391
% Growth (RC)	24%	32%	11%	23%	39%
% Growth (DORC)	46%	46%	20%	43%	65%

* Denotes proposal
^ Does not include augmentations
Source: ACCC decisions

Of the close to $3 billion accommodated by the Commission approximately three-quarters relates to new augmentations which must be assessed against

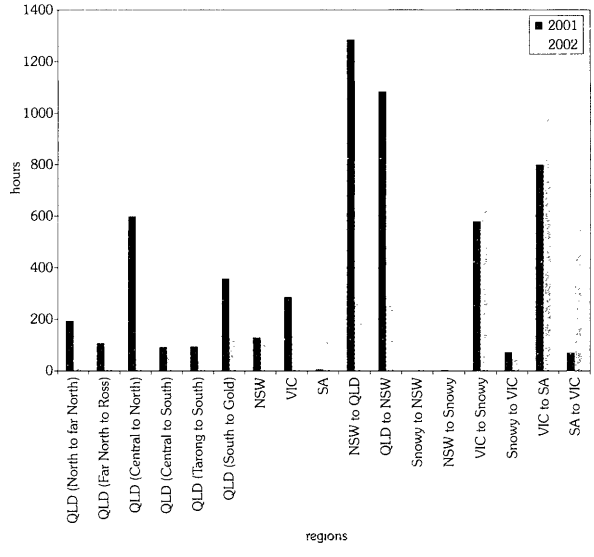
the regulatory test.[6] When you compare these figures to the opening asset base the figures range from an increase of 20 per cent in Victoria to a proposed 65 per cent in Tasmania. The overall average is 44 per cent.[7]

Constraints

Further, we can see from figures provided in NEMMCO's 2003 statement of opportunities (SOO) that this increase in transmission investment in the National Electricity Market (NEM) is translating into an easing in constraint hours in the network. The bar graph labelled 'Constraints' shows the inter[8] and intra-regional constraints for 2001 and 2002 in the NEM and the hours that constraints occur in particular regions.

It is clear from the bar graph that constraints in the NEM may generally be decreasing; however, there have been smaller increases registered on the NSW/Snowy/Victorian interconnectors. This information is consistent with the evidence of solid investment in electricity transmission in particular in Queensland and New South Wales. In other words, as transmission investment increases constraints in the NEM decrease.

Constraints

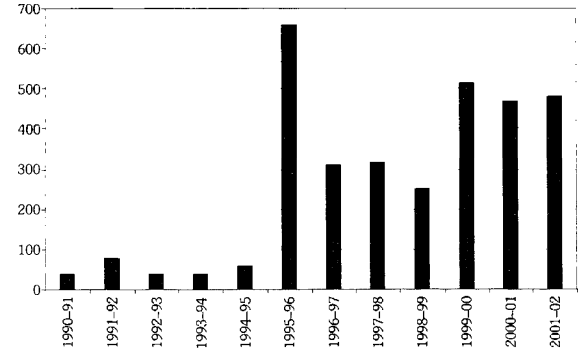


Let us turn now to investment in gas transmission. The gas industry has claimed in recent times that the gas regime is inhibiting new investment. Evidence does not support this.

Gas transmission

In gas there has been substantial investment since the commencement of the reforms. From 1990–91 to 1994–95 there was only $250 million invested in gas transmission facilities. Since 1995–96 there has been over $3 billion invested, with another $7.7 billion proposed over the forthcoming decade. In that time the transmission network has expanded from 12 069 km to 19 043 km.

Investment outcomes in gas transmission



Source: AGA, Gas Statistics Australia, various issues

The Commission recognises that there are issues specific to Greenfields investment versus existing pipeline infrastructure and the so-called regulatory truncation problem. Put simply, the truncation problem arises when the upside on risky investments is capped by the regulator, but companies are not protected from the downside risks. Under certain circumstances the outcome may give negative expected returns under regulation where the expected returns would be positive without regulation.

Greenfields gas guideline

The Commission has put out a draft Greenfields guideline consistent with the gas code which addresses the issues that arise when there is risky new investment as compared to situations when there is investment in long established public utility facilities. The draft guideline directly addresses the regulatory truncation problem.

- It allows companies to retain any upside. Tariffs are set on an ex ante basis using expected demand. If demand exceeds the projections the regulated companies retain all of the additional revenues and profits.

6 The remaining quarter related to refurbishment and replacement capex.

7 The comparison here is to the replacement cost of existing assets. For comparison purposes it does not depreciate the assets.

8 In relation to the inter-regional constraints, some of the interconnectors such as QNI, Directlink, and Murraylink and the SNOVIC 400 have come on board after 2000.

- It eliminates some of the downside risks faced by the regulated companies. Service providers can seek a review of the tariffs if demand outcomes are worse than originally forecast. They can also capitalise losses in early years so that they gain greater upside in later years when their market may have grown.

The evidence suggests that the current regulatory provisions and their application to electricity and gas transmission businesses provide a solid base for future investment. Furthermore, regulated businesses can outperform the Commission's benchmark rate of return and retain the additional profits. New investment expenditure is accommodated in Commission decisions if that investment passes the regulatory test.

Getting the right balance

Although we are seeing strong investment outcomes in both the regulated electricity transmission and gas transmission sectors the Commission needs to ensure that they are the right investment outcomes. The Commission's objective is to get the right balance of incentives for investment and certainty for investors.

To ensure that the balance is right the Commission is reviewing several issues covering its approach to regulation. As I mentioned earlier, the Commission's approach to regulation is determined by the gas and electricity codes. But in a number of important areas the codes require the Commission to develop guiding principles.

I would like to touch on two areas where the Commission is further developing its approach to regulation.

The first of these is its review of its draft regulatory principles for electricity transmission. The second is the review of the regulatory test.

Let me turn first to the review of the DRP. The focus of the review will be on improving incentives for investment and efficiency.

The review is taking place now as the Commission has had several years of experience in regulating price and revenues for electricity transmission network service providers.

The review will cover all of the main issues in the current *Draft statement of principles for the regulation of transmission revenues (draft regulatory principle)* including valuation of the asset base.

Draft regulatory principles

We are seeing some solid investment performance in the regulated electricity and gas transmission sectors. The Commission needs to ensure that in its revenue cap determinations this solid investment performance continues.

An important element of a transmission network service provider's (TNSP) revenue cap outcome is the asset base of the TNSP.

Asset base

Since taking over the regulation of TNSPs from the jurisdictions the Commission has completed the first round of revenue cap determinations. In accordance with the code for all first round revenue cap determinations the Commission adopted the state regulators' valuations of TNSP's asset base value. While the Commission does not have unlimited discretion in determining an asset valuation methodology, the code provides for the Commission to revalue the asset base for the second revenue reset.

The problem with revaluation is the level of uncertainty that the TNSP might be subject to. Revaluation could potentially lead to significant variations in the value of the asset base from one period to the next. That is, a revaluation might result in a windfall gain or downward loss for the TNSP.

The revaluation can subject the TNSP to an unpredictable revenue stream creating uncertainty. The risk for the regulated firm is that it invests now, but has its investment revalued downwards in future. It may never fully recover its costs.

The advantage in a revaluation of the asset base is that it would provide a useful transitional tool from the change of regulatory regimes. The Commission has never commissioned a full valuation of any of the TNSPs' assets. If the Commission is not confident that the jurisdictional asset values generate efficient returns it could revalue at the initial reset to ensure that errors in the asset base are not perpetuated.

Should the Commission decide to revalue it would use the depreciated optimised replacement cost (DORC) methodology. The Commission decided to adopt the DORC approach for fixed assets to avoid the problem of circularity that arises when trying to value a regulated asset on the basis of associated regulated revenue.

The Commission's preferred position would be to adopt the initial jurisdictional valuation and add in new investment at cost. The attraction to this option

is that a lock-in of the jurisdictional asset base is unlikely to deter new investment. However, the problem with a lock-in is that if there are existing errors in the jurisdictional asset base these would be locked in and carried forward into the future.

It is envisaged that the Commission's 2003 discussion paper—*Review of the draft regulatory principles* will be released for public comment towards the end of this month. The Commission will be inviting submissions on the issues raised and will be holding workshops later on in the year or early next year.

The second review being undertaken by the Commission is its review of the regulatory test.

Review of the regulatory test

The regulatory test is a new investment test applied by the TNSPs on capital expenditure that augments the network. The test compares costs and benefits of alternative feasible options to the new augmentation. The test then chooses the one that maximises the net benefits.

Some obvious questions for the Commission's review of the regulatory test is whether the test should be retained and whether any changes need to be made to the test.

While the Commission strives to achieve the right investment outcomes for new investment it also aims to protect the interests of the users of the regulated business. Given that regulated businesses are natural monopolies and therefore do not have competitors, users cannot make the decision to switch to an alternative provider. Instead, potential users are stuck with poor investment decisions through unnecessarily high prices, poor service standards etc. Thus the regulatory test provides a hurdle for inefficient investment and works to ensure that only efficient investment is rolled into the asset base.

The attraction of the regulatory test is that it is a comprehensive test for new investment that protects the interests of the user, and provides a critical level of certainty for the TNSPs as once the new investment has passed the regulatory test it will not be subject to optimisation.

On the whole the regulatory test has provided good solid outcomes in investment. The test is well understood by the industry and there is a considerable amount of built up experience and expertise in applying the test.

This does not answer the question on should there be any change to the test. In particular there is the important question whether the test should include competition benefits. The debate is a straightforward one. Should the effect of increased transmission capacity on competition between generators be taken into account? The idea is there is limited competition between generators in some regions and that increased transmission capacity can enhance competition from interstate generators to those regions. The benefit from this is lower prices in the 'competition poor' region.

While the Commission is keeping an open mind on the matter there is unlikely to be a radical change to the test as a radical new approach could put at risk the outcomes on the investment front that we have seen to date. Assessing any likely increase in generator competition resulting from transmission investment is also extremely difficult. Nonetheless, it would seem a strange outcome to ignore these important potential benefits.

Conclusion

The issue of new investment has been increasingly topical since the COAG energy market review released its report at the end of last year and then more recently with NEMMCO's release of the 2003 SOO.

New investment is important to the efficient operation of the national energy market in so far as transmission network services are critical to the development of a competitive NEM and a competitive gas market with more pipelines providing greater inter basin competition.

The evidence points to a solid investment performance in the regulated areas of electricity and gas transmission. It is clear that the Commission's approach to regulation is achieving appropriate investment incentives and protecting the users of the regulated businesses.

The Commission has endeavoured to enhance the results of this solid investment outlook through continuing to improve on the incentives for efficient investment. This is seen in its current reviews of the DRP and the regulatory test.