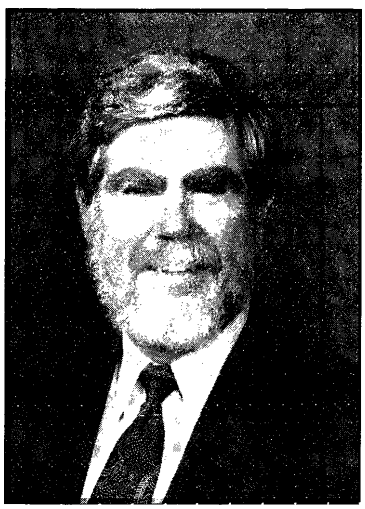
or financial advice. This is mandatory under some State-based retail legislation (for example, in Queensland as a result of the passing of the *Retail Shop Lease Amendment Act 2000*).

It was recommended that landlords should avoid one-sided contracts, use plain English leases, avoid onerous/discriminatory clauses in leases, and avoid non-disclosure of material facts or events that could affect a tenant's decision to enter into a lease.

This is sound advice.

The full version of this speech will be available soon on the Commission's website at <http://www.accc.gov.au>.

Lessons from California for Tasmania and the NEM



This speech was made by Commissioner Rod Shogren, at the 4th annual Victoria Power and Gas Conference in Melbourne on 20 February 2001. Mr Shogren draws parallels between the market in California, which recently experienced an electricity crisis, and the market in Tasmania, which will soon join the national electricity market (NEM). While the differences between both markets are significant, useful lessons can be learnt.

Introduction

It has been a traumatic couple of months for electricity industries and regulators around the world. All eyes have been on California. The electricity crisis there has reignited debate about electricity market reform. Does electricity market reform work? How fast should it be implemented? What is the best market design? What is the best structure to avoid abuse of market power? How can we improve our own markets to ensure that a California-type crisis doesn't occur here?

Today I'd like to discuss some of these issues and rather than say that our market is too different from the Californian market to make any direct comparisons meaningful, I'd like to focus on some issues that have been part of the Californian debate — market structure, market rules and market power. I think these issues are all pertinent in the Australian context.

Tasmania's entry to the national electricity market (NEM) provides governments, market participants and regulators with an opportunity to refocus on getting the market structure and market rules right. California is the extreme result of getting the market rules wrong. It also provides an opportunity to assess the potential for the exercise of market power both in the Tasmanian market and its likely effect on market power in the Victorian market.

California background

On 16 January the state of California declared a state of emergency as hour-long blackouts rolled across its northern part. As a result California, which has long been held up as an innovative and dynamic market, was forced to pass new laws to allow the state to purchase electricity on behalf of the two largest retailers, Southern California Edison (SCE) and Pacific Gas & Electric (PG&E). This drastic measure was required because both utilities had had their facility to buy power with credit withdrawn because they had defaulted on payments. Generators had been exporting electricity to retailers in other states that could pay for it, making the supply situation even worse.

The Californian retailers bore the immediate financial cost of a failed market structure that did not allow them to recover costs, set prices to customers or hedge against risk. Of course the energy crisis in California has much larger financial ramifications. Without a reliable electricity supply, companies are now questioning whether they will remain in California.

The California market was set up to deliver the benefits of competition and lower prices to consumers. However, the reforms included compromises to meet a range of other objectives. The wholesale market was deregulated but the retail market was stuck with a retail price cap. New entry to the market was discouraged to allow the incumbents to recover stranded costs. Market participants bought and sold all power through the day-ahead wholesale market and regulators discouraged financial contracts to hedge risk of rising spot prices.

While wholesale prices remained low the market worked, despite the 100 per cent exposure retailers had to the wholesale day-ahead market price.

However, the market began to unravel when a combination of factors began to drive the wholesale price of energy above the retail price cap. With hindsight, it is obvious that the market designers took a huge gamble in expecting wholesale prices to stay low indefinitely. The actual outcome was vastly different. A combination of weather conditions and economic growth increased load. No new generation led to a demand–supply imbalance that put upward pressure on wholesale prices, from which retailers had no protection.

The following factors contributed to demand outweighing supply.

- California is the eighth largest economy in the world and saw sustained load growth over this period.
- From June 1999 to June 2000, load growth in California was greater than 12 per cent.
- Excess supply capacity in 1998 was eliminated by 2000–01.
- There has been no significant new generation during the past five years in California and very little new generation has been developed in the past 15 years because of stringent environmental requirements and the NIMBY phenomenon (not in my back yard).
- Natural gas prices increased over the same period, increasing generation costs.
- Extreme weather conditions, both hot and cold, led to decreases in hydro reserves in other states; reserves that would normally be exported to California.
- Older plants had increasing outages, which further strained supply.
- A retail price freeze protected consumers from wholesale market prices and provided no signal to consumers as to the true value of electricity consumption and therefore gave them no incentive to conserve electricity.

The crisis was first observed in San Diego where the retail price cap had expired. Rising wholesale prices led to a doubling and trebling of retail prices. The resulting public outcry led to customer refunds and the reintroduction of a price cap. Elsewhere in California the retail price continued to be protected from the growing tightness in the wholesale market and the subsequent high wholesale prices because it was capped by regulation. The two retailers, PG&E and SCE, bought electricity through the spot market but were left with ongoing and sustained losses because they had 100 per cent exposure to the spot price and were restricted to selling at the lower retail cap. This was clearly unsustainable for these businesses, leading to near bankruptcy and state intervention.

Where to from here for California?

California is at a crossroads of regulation. Will they fix the current market structure, believing that deregulation can produce, and has produced, greater efficiencies and lower prices for consumers in similar markets around the world? Or will the state become more involved in the workings of the market by either becoming a permanent electricity purchaser in the market, or by buying up generation or distribution assets (essentially a reversal of reform)?

There are immediate concerns about the financial health of the utility retailers in California and the security of the market. Involuntary load shedding has been commonplace, but while these issues are significant in the short run, larger, long-term questions need to be asked and answered.

The Federal Energy Regulatory Commission (FERC), in a review late last year, believed the problem was born out of faulty market design. The FERC's response was to allow retailers to write hedging contracts beginning immediately.

They also recommended eliminating the Californian power exchange and replacing it with a real-time spot market to be operated by an independent system operator (similar to NEMMCO).

However, any long-term solution must address the fundamental supply and demand imbalance. It is clear that restrictions on new generation must be lifted to increase capacity. The market worked to the extent that several smelters suspended production and resold their electricity contracts back into the market. Without this market incentive, the spot prices and load shedding would have been much worse.

For most of the market, the low price caps exacerbated the problems as generators sought more profitable opportunities in interstate markets. Retail price caps, while proposed to protect consumers, stifled any price signals to Californian consumers and prevented consumers from being able to make an informed choice about whether to consume electricity at a particular time or not. While no one would suggest that consumers should face prices as volatile as those in the spot market, the roll-out of retail contestability is important in facilitating growth of innovative programs that promote demand-side responsiveness. Most consumers are simply unaware of the high costs of meeting energy needs at peak times. In California, prices to consumers will have to rise so that part of the massive debts accumulated by SCE and PG&E can be repaid. Ultimately, the market players and consumers will share the pain resulting from bad market design.

Are there lessons for Australian markets?

What can we learn from the Californian energy crisis?

The market structure in the NEM has many similarities with the Californian model. However, there are also some fundamental differences between the two, not least of which is the role that contract hedging has played in the Australian market. In those States with high average prices, new capacity has been, and will continue to be, added. The NEM has also gone further than the Californian market did because it is committed to the deregulation of the retail sector, currently taking place. As we have seen, failure to deregulate the retail sector was a crucial mistake in California.

While the Australian market is significantly different, I think we can learn from the Californian experience. One message is to reinforce the importance of price signals in making markets work. Price signals are essential to promote new investment in generation and infrastructure in the market. They also provide the demand side of the market with the opportunity to react to higher prices. The question for us is, are these signals working in the NEM?

Victoria has been reported as the next place a California-type crisis may occur. Despite spot prices being very high during peak periods in Victoria, there is no new investment in generation. Perhaps prices aren't high enough for long enough in Victoria to cover the total costs of new investment. If returns to existing assets in Victoria are relatively low because average demand is easily met by existing capacity throughout most of the year, there is not a great deal of incentive to invest in more generation. If the answer to the Victorian situation is not more generation, is it more interconnection?

Interconnectors address key areas of constraint on the network, which otherwise would prevent the transportation of the most efficiently produced energy across a wider area. Interconnectors allow gains from trade between regions with different demand characteristics and different costs of supply. However, for us to be confident that an interconnector contributes to market efficiencies:

- in the case of an entrepreneurial investment, it must face risks equivalent to those faced by new generators; or
- in the case of a regulated interconnector, it must provide a demonstrable public benefit.

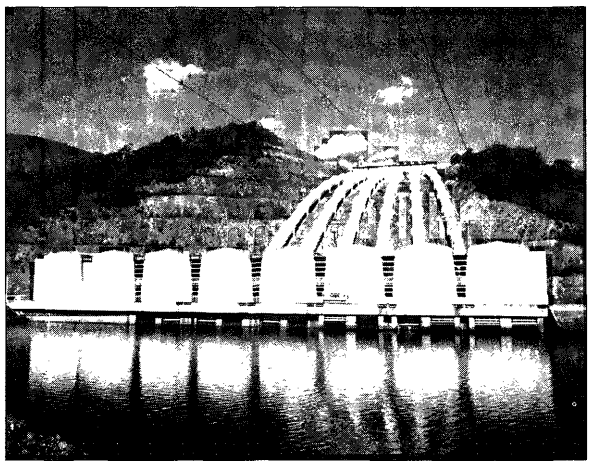
In Victoria where higher prices do not seem to have been high enough to bring on new peaking generation, interconnection is seen by some as the solution. Many generators have asked whether Basslink, the latest entrepreneurial interconnector, designed to link Tasmania to the NEM has passed either of these tests.

Basslink

The Tasmanian Government and the project's supporters see Basslink as the solution to Tasmania's constrained energy supply. Basslink is proposed as a solution for meeting Victoria's peak-period demand and as the vehicle to introduce competition into the Tasmanian market, which is dominated by a single generator and a single retailer. It is argued that these public benefits will be achieved by allowing Hydro Tasmania to export electricity to Victoria during peak periods, thus providing Victoria with more capacity at the daily and summer peak periods. Basslink will also allow Tasmania to import electricity during off-peak periods to ensure Hydro Tasmania can maintain the State's water resources.

Late last year the National Electricity Code Administrator (NECA) applied to the Commission on behalf of the State of Tasmania for authorisation of derogations to the National Electricity Code. Tasmania also submitted applications for authorisation of vesting contracts, to facilitate its NEM entry and the transition to full retail contestability.

In January the Commission received submissions on both the vesting contracts and the derogations from various interested parties. While most submissions support the proposed entry of Tasmania into the NEM, they are also critical of the proposed Tasmanian market structure. Many submissions complain that the Tasmanian market, as proposed, cannot achieve a competitive outcome because it applies competitive market rules from the NEM to a market structure that is highly concentrated and essentially anti-competitive. These comments come at a time when the California



experience reminds us what can happen in an electricity market in which reform objectives are inconsistent and where market rules are not appropriate for that particular market structure.

I'd like to discuss briefly the issues raised most frequently in the submissions on Tasmania's entry to the NEM. Some are matters for the governments participating in the NEM and over which we have little influence. Nevertheless, I raise them to highlight what some have identified as the anti-competitive detriment associated with Tasmania's entry to the NEM.

Single generator

A common concern raised in submissions is that Hydro Tasmania will remain the single largest generator in Tasmania (that is, the Hydro won't be disaggregated). The Tasmanian Government has agreed to separate the Bell Bay Power Station from the Hydro, but some have questioned whether Bell Bay can provide real competition in the Tasmanian market. Bell Bay will not be converted to a gas operation until the Duke Pipeline is landed and operational in Tasmania. This is not scheduled to occur until 2003–04. The conversion to gas-fired generation will take place in two stages. The second stage will not be completed until 2006. In the interim, generating capacity in Tasmania will fall.

It is argued that new retailers and new customers will have no option but to contract with Hydro Tasmania. Furthermore, some have questioned the effectiveness of Bell Bay as a competitor even after this date. The Hydro has already been involved in negotiating Bell Bay's gas supply contracts with Duke. This could damage any possibility of effective competition between Bell

Bay and the Hydro when Bell Bay becomes operational. The Hydro is likely to have enough information about Bell Bay's marginal costs of supply and financial structure to allow it to operate in a way to minimise Bell Bay's impact on the pool price in Tasmania. Consequently, Bell Bay may not be as effective a competitor to the Hydro as first envisaged.

The submissions have raised concerns about the likely prospect of other generators entering the Tasmanian market in the future. Given that electricity supply and demand in Tasmania is currently in balance, it is unlikely a new generator could enter the market without a supply contract or contestable customers to underwrite such an investment. Furthermore, predictions of load growth in Tasmania beyond the commissioning of Basslink are highly uncertain.

The lack of opportunities for new entry in generation in Tasmania is further weakened by the announcement that the Hydro intends to develop substantial wind power capacity. Inclusion of wind power in the Hydro's generation capacity will further contribute to the Hydro's market dominance. Market participants in Tasmania have raised concerns that price cross-subsidisation may occur between hydro and wind generation and have called on the Commission to enforce ring-fencing between Hydro Tasmania's wind and hydro generation.

Single retailer

The Tasmanian market is characterised by a single retailer, Aurora Energy. The vesting contracts submitted to the Commission for authorisation vest Aurora Energy's franchise load obligations with the Hydro until 2007, when full retail contestability will be introduced.

The roll-out of retail contestability is set to take place over four years. This timetable, although no longer than those authorised in other jurisdictions, is considered to be too long by many of the parties who put forward submissions, given the size of the Tasmanian market and that Tasmania is the last jurisdiction to join the NEM. Tasmanian customers and potential market players have seen the results of other jurisdictions entering the market and some large players and those already on non-regulated tariffs are keen to become contestable as soon as Tasmania joins the NEM.

Several submissions have complained that the duration of the vesting contracts will affect the likelihood of another retailer entering the Tasmanian market. Contestable load is said to be 40 per cent of total load in Tasmania with the balance under contract between large industrial customers and the Hydro directly. The timetable for the roll-out of retail contestability provides for less than 50 per cent of load being contestable by 2007. These submissions then question whether a retailer will be able to enter the market and find enough customers to contract with it if more than 50 per cent of load is already sewn up well into the future.

Another issue is how a new retailer hedges its exposure to the regional spot price. If the retailer contracts with a Victorian generator, it risks being unable to fulfil its load obligations if the link is down. The generator supplying the retailer may have no option other than to contract with the Hydro (a competitor) to cover this risk, and the Hydro is likely to be the only generator able to offer enough capacity.

The other important issue is whether the Hydro will have market power to influence the regional spot price in Tasmania. When electricity is flowing into Tasmania across Basslink, the Tasmanian spot price must be higher than that in Victoria. How much higher? The Hydro will have market power particularly when Basslink is constrained, and will therefore be able to bid prices at any level (up to the value of lost load (VoLL)) to maximise profits. The potential use of such market power by the Hydro will be a key consideration for the Commission when looking at this authorisation process. We must look carefully at how Tasmania's market structure interacts with the NEM rules. The California crisis demonstrated that it is crucially important to push for a market structure that will result in competitive outcomes and one that is governed by well-designed market rules.

The regional price differences between the Tasmanian and Victorian markets will result in inter-regional revenues (IRRs). These revenues have been mooted as a possible hedging tool for new entrants. The Tasmanian Government has given a commitment that the Hydro will divest itself of the IRRs for all southward flows along the link. However, no information has been provided as to when or how this divestiture will

take place. Submissions have argued that such information is crucial for new market entrants.

There are many other questions raised by the submissions. How will the divestiture take place? Via auction? Is there a reserve price under which the Hydro reserves the right to keep the rights to the southward flows? What is the timing on the divestiture? Is the entire amount to be sold off in one hit or is it to be a staggered sell-down? If it is the latter, will the sell-down proportions be matched to the retail contestability timetable? Will a partial sell-down be enough to tempt a new retail entrant into the market? This is also an area in which the Commission will be seeking assurances that the sell-down process will facilitate competitive new entrants.

The value of the southward IRRs will depend on the volume crossing the Basslink cable. Several submissions questioned the basis on which southward flows across Basslink are to be restricted to 300 MW. Basslink is able to transport 450 MW of power in either direction at any time. However, this capacity can be increased to 600 MW if the cable is precooled at 300 MW or below.

Under the Basslink Services Agreement (BSA), Hydro Tasmania has full ownership of the rights to northward flows along Basslink and any IRRs that result in exchange for a set monthly fee paid by Hydro Tasmania to Basslink. It is uncertain whether the 300 MW restriction is technically based or whether it is linked to an estimate of interruptible load available in the Tasmanian market. Several submissions raised concerns that if the 300 MW restriction is based on estimates of interruptible load, there may exist a conflict of interest if Basslink is the body that has made such estimates. The submissions say that Hydro Tasmania has an obvious incentive to maximise northward flows and limit southward flows.

The way in which Hydro Tasmania will direct Basslink to bid into the Victorian market will influence the value of the IRRs. No information has been made public on this issue. Would it be possible for the value of the IRRs to be reduced to zero by certain bidding instructions? If so, this would leave new market players with no effective hedging instrument and act as a barrier to market entry.

Issues such as the restrictions on southward flows and bidding instructions go to the heart of the BSA. Basslink and Hydro Tasmania have advised the Commission they will not seek authorisation of the BSA. Consequently, the Commission will not be using the authorisation process to alter the arrangements that form part of the BSA. While the Commission has advised the two parties that the BSA might raise some competition issues, we do not currently have any intention to take action against the parties.

What this means is that both parties must be confident their behaviour under the agreement will not breach the Trade Practices Act. As they are not seeking authorisation of the agreement, they will not be immune from prosecution under the Act. Consequently, if either of the parties seeks to give effect to the BSA in a questionable way, either the Commission or any other interested party may have a right of action under the Act.

Conclusion

Many of the issues raised by the submissions on Tasmania ask serious and fundamental questions about the potential for abuse of market power under the proposed Tasmanian market arrangements. The Commission is concerned about market power but I strongly believe that we cannot blame a business for making decisions to maximise profits within a set of rules. If we don't like the outcomes that the rules allow, then it follows that there is a problem with the rules.

This is why the Commission is taking comments on issues of market structure and the market rules very seriously. The structure of the market and the rules that govern it will determine the relative success of the outcome for market participants and most importantly for consumers. The outcome of this current authorisation application from Tasmania will be a fine balance of economic and social benefits for both Tasmania and the NEM as a whole.