

The Financial Costs and Benefits of Privatisation

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The Kennett Government Policy Setting

The vigorous process of privatisation which the Kennett Government embarked upon following its election in 1992 radically transformed the Victorian economy. Following many years during which the State was among Australia's worst performers with low income growth and fiscal mismanagement, the post 1992 period saw it converted to enjoy rapid growth and a sound budgetary position.

Asset sales were a major feature of the policy both as a means of restoring the States parlous credit rating position and allowing lower levels of taxation, and as a means of injecting greater competitiveness into the state's economy. Privatisation of the Victorian electricity assets accounted for the lion's share of the State's asset sales in a process which was among the most notable in the world. By the time of the Government's fall in 1999, as well as electricity, the state owned gas, rail, bus services, trams and ports had been privatised. In addition, the Government had brought in private ownership to build its major road development, City Link and had introduced private ownership of prisons and hospitals.

Only in the case of the latter two did the incoming Labor Government reverse the process. The Labor Government has also broadly endorsed the need to maintain a tight budgetary policy.

The basis of the sales, in line with those in other jurisdictions, was a break down of the supply into generation, long distance transmission, local distribution and retailing. It was intended for generation and retailing to operate in a totally deregulated market with distribution and transmission to be regulated. At the onset, generation, transmission and distribution/retailing were to be structurally separated but there were no long-term measures to prevent re-aggregation. Although retailing and distribution were sold as combined units, they were to be structurally separated to prevent the distribution business favouring its affiliate. In the event it is likely that all five of the original host distribution business/retailers will have separate companies handling the two activities.

Regulation was to be based not on costs but "incentive" based. This is the CPI-X formula (allowing prices to rise in line with inflation less than a factor for expected productivity improvements). In both retailing and generation, different segments of the market were to be progressively opened to competition over a five year period. In the interim, prices were fixed for the regulated customers and associated vesting contracts allocated to the generation businesses.

The Victorian Electricity Industry in 1990

The State Electricity Commission, having pioneered the efficient development of Victoria's brown coal, was by the 1980's exhibiting clear sclerotic symptoms. "Slow Easy Comfortable" became a frequent sardonic descriptor. SECV was exhibiting clear evidence of featherbedding. This included being used by governments as a tool to promote social and industrial goals at hidden costs, and making inappropriate and excessive investments in new generation plant and transmission.

Different studies by Victorian Government bodies had established¹ the nature of the malaise and the Industry Commission (IC) documented this more comprehensively². The IC set out a blueprint which included measures to ensure state based electricity businesses were operated along private sector lines but also argued that competition was necessary to ensure gains are quickly taken up and on-going. It also argued that these gains would only be sustained if the industries were privatised.

The IC report was mainly focussed on introducing competition in order to stimulate greater efficiency. Privatisation was also recognised as important in bringing disciplines of capital markets and "the sanctions provided by the possibility of take-over and the risks of insolvency. It also significantly reduces the scope for interference by governments." (Vol 2 p.147). The Commission was forthright in articulating its view that "Ownership clearly does matter." (Vol 2 p. 154).

The architect behind the Victorian privatisations was Treasurer Alan Stockdale. Stockdale honed his own views in favour of during a visit to the UK in 1990 when he observed deficiencies in the UK privatisation outcome. He saw these deficiencies chiefly as insufficient disaggregating generation so that price outcomes were in excess of those likely to emerge from a more atomised supply structure³. The privatisation approach drew from the proposals developed by the Industry Commission and from a joint Tasman/Institute of Public Affairs paper⁴, which was part of an agenda for reform for Victoria.

The general consensus had emerged among policy formulators and the economics profession that parts of electricity (mainly generation and retailing) were as open to competitive provision as is generally the case in industry. To this was added the increased recognition of the importance of private ownership in stimulating efficiency to create the groundswell for reform.

¹ These included: Natural Resources and Environment Committee of the Victorian Parliament, *Electricity Supply and Demand Beyond the Mid 1990s*, Melbourne April 1988; SECV/DITR, *Demand Management Development Project*, Melbourne June 1990

² Industry Commission, *Energy Generation and Distribution*, Report No 11 AGPS, Canberra, May 1991

³ Stockdale, A The Politics of Privatisation in Victoria, Privatisation International No. 134, London November 1999.

⁴ Project Victoria, 1992, IPA

The Sums Raised in Privatising Electricity

Sales of privatised electricity assets between 1993 and 1999 realised \$21.4 billion , with gas assets realising a further \$6.5 billion. These funds were used to pay off State debt which was reduced from 26.7% of State Gross Product to 3.1% in June 2000.

According to the Auditor-General⁵, excluding certain franchise fees and other payments the estimated sales values and the average Price/Earnings as follows:

TABLE 1:	SALE PROCEEDS AND EARNINGS MULTIPLES ACHIEVED FROM THE SALE OF ELECTRICITY ENTITIES (a)			
	<i>PowerNet Victoria</i>	<i>Southern Hydro Ltd</i>	<i>Electricity generation businesses</i>	<i>Electricity distribution businesses</i>
<i>P/E multiples Average</i>	12.3	14.5	12.0	13.9
<i>Sale proceeds (\$m)</i>	2,545	398	9,001	8,270

(a) The earnings multiples are based on projected earnings before depreciation, interest, tax and abnormal items (EBDIT), as per the Information Memorandum for each company (in nominal dollars).

The Auditor-General put the annual savings, net of dividends that might otherwise have been expected, in 1997/98 at \$760 million, a sum that would have been expected to increase year by year. This was equivalent to some 9 per cent of the State Government's own taxation raisings. Furthermore, the debt alleviation and other reforms to State Government finances led the debt rating agencies to raise the State's rating to AAA. This brought about further savings in terms of interest charged on debt.

The businesses realized far more than had been anticipated.

Prior to privatisation, the five distribution businesses had an optimised replacement cost (written down) value of \$3.8 billion but sold for \$8.3 billion. This was in contrast to the UK experience where privatisations had raised lower sums than the written down value of the distribution assets.

The generation businesses also sold for far greater sums than anticipated. Indeed, Hazelwood Power, which sold for \$2.4 billion in 1996, was considered to be obsolete and had been scheduled to close in the year 2001. Its new owners, National Power of the UK, embarked on a refurbishment which has allowed its life to be considerably extended.

Table 2 details the more important of the sales.

⁵ <http://www.audit.vic.gov.au/mp98/mp98t&f.htm>, paras 3.8204-3.8206

Table 2 Major Energy Asset Sales

ELECTRICITY			
United Energy	August 1995	\$1.553 billion	AMP/ Axiom/ Utilicorp
Solaris	October 1995	\$950 million	AGL/ Energy Initiatives (US)
Eastern Energy	November 1995	\$2.08 billion	Texas Utilities
Powercor	November 1995	\$2.15 billion	PacifiCorp
Citipower	December 1995	\$1.575 billion	Entergy Corporation
Yallourn Energy	March 1996	\$2.426 billion	PowerGen, ITOCHU, AMP, Axiom and Hastings
Hazelwood/ Energy Brix	August 1996	\$2.357 billion	National Power, Destec, PacifiCorp and others
Loy Yang B	April 1997	\$84 million ⁶	Edison Mission Energy
Loy Yang A	April 1997	\$4.746 billion	Horizon Energy Consortium
PowerNet Victoria	October 1997	\$2.555 billion	GPU
Southern Hydro	November 1997	\$391 million	Infratil Australia Consortium
Ecogen	March 1999	\$361 million	AES Transpower
GAS			
Westar and Kinetik Energy	January 1999	\$1.617 billion	Texas Utilities
Multinet / Ikon Energy	March 1999	\$1.97 billion	Consortium -Utilicorp United Inc, AMP
Stratus / Energy 21	March 1999	\$1.67 billion	Boral / Envestra
Transmission Pipelines Australia	May 1999	\$1.025 billion	GPU Inc

Details of the Sales

Distribution, Transmission and Retailing

Some \$8.3 billion was paid by (mainly overseas) interests for the five distribution/retail businesses. In the following half dozen years four of the businesses have undergone changes in ownership. The fifth (TXU) has sought to sell its distribution system at a price reportedly below the original purchase price. TXU also bought one of the three gas distribution businesses.

⁶ Edison Mission Energy Group released the State from significant liabilities and exposures associated with previous contractual arrangements. The State valued the transaction at \$1.1 billion.

CitiPower, having already undergone one ownership change when Entergy sold the business to AEP is to be sold again. The first sale was for slightly more than the \$1,575 million originally paid perhaps reflecting some expenditures that Entergy had undertaken; the on-sale is scheduled for July 2002 and reports suggest it is unlikely to be in excess of the price paid by AEP.

AGL bought Solaris with GPU which sold its half share to AGL once it bought the transmission business Powernet. AGL also has extensive energy interests in NSW and South Australia.

United Energy, comprising the original electricity purchase and the subsequent gas purchase of one of the three gas retailers/distributors. The firm has undergone a partial float and spun off its retailing activities into Pulse—a joint venture comprising United Energy (25%); a consortium of Aquilla (United's US part owner) and AMP (25%); Shell (40%); and Woodside (10%). United has also made investments in Western Australia and in telecommunications. The business in February 2002 announced a \$30 million write down of its investment in Pulse and its trading affiliate. The Pulse electricity and gas retailing business was sold for \$880 million in July 2002 to AGL. This represents a modest discount on the price the Pulse partners paid United Energy. Although the notional retail component of the original 1995/99 sale realizations is not public, this price probably represents a strong premium on the implicit price paid. This is due in part to the business's relative success and in part to synergies in its "fit" with AGL. There has also been a general re-rating of the value of retail operations over recent years.

United Energy's share value was \$900 million in July 2002. It has been traded on the market since May 1998 when its shares were listed at an average of \$2.30. The company has had a relatively generous dividend policy; its value in July 2002 was about six per cent below its original list price, (this compares to a general market increase of around 17 per cent). The company's share price dropped from about \$2.70 prior to the announcement of the Victorian retail price cap.

Powercor was originally bought by Pacificorp, a Seattle based supplier that was subsequently taken over by Scottish Power. It was subsequently sold to CKI-Hong Kong Electric who on-sold the retailing arm to Origin Energy. The reported sale price represented a modest profit on the original privatisation; Pacificorp had enjoyed considerable retailing success, including a successfully contested contract with NSW government owned generator Pacific Power. Origin Energy was spun off from Boral, which in addition to electricity also bought one of the three Victorian gas distribution businesses and has other energy interests in South Australia.

The transmission business, Powernet was originally bought by GPU (which was obliged to sell its half interest in Solaris to its partner AGL). GPU, having been severely mauled by

UK regulatory decisions decided to concentrate on US activities and sold Powernet to Singapore Power for \$2,100 million; this represented a loss of \$450 million.

GPU also bought the State's gas transmission business, GasNet, for \$1025 million and subsequently exited the investment in a float that valued the business at \$826 million.

Profitability in these businesses and the transmission business is fundamentally driven by government regulatory decisions, principally concerning price levels but also on service levels.

Price levels had been established at a rate of return of over 11 per cent at the time of privatisation. Regulatory authorities have reduced this in line with inflation, interest rates and other factors to its present level of a little over 6 per cent. The reductions required by the ORG during 2000 were the spur to TXU seeking to exit the Victorian market. The distribution businesses objected both to the magnitude of the required reduction in prices and to what they considered to be a perversion of the specified CPI-X regime under which these prices are determined. An appeal to the Victorian Supreme Court upheld the ORG's methodology.

The final tranche of electricity customers to be opened up to competition, households and small businesses, was delayed by one year to January 2002. This delayed shift to Full Retail Competition was further distorted by an introduction of price caps on each host retailer. The ability of the Government to set such caps was established in the Bracks Government's Essential Services Commission Act, wherein the Office of the Regulator General was converted into the Essential Services Commission. Unlike with previous tranches, the final tranche's opening to competition was taking place at a time when energy prices were increasing and all the businesses sought to increase their listed prices. The Government set caps at levels much lower than the price applications made by each of the businesses. The lower than sought for price increases also incorporated measures that prevented the businesses from re-aligning their price structures between different classes of customer.

The businesses expressed strong disappointment about the price setting outcomes. CitiPower announced them as being the reason why its American parent was selling the business and the early events in the retail market have shown less than anticipated activity among retailers to seek new customers at the household level.

Generation Businesses

Aside from the 3,700 MW Snowy hydro-electric business, in which the Victorian Government has a 29 per cent share, with the Commonwealth and New South Wales Government owning the balance, Victorian generation included four major brown coal fired stations plus gas and hydro-electric generation. Snowy itself remains in government

hands largely because of the difficulties in reconciling the different products of the scheme: power, irrigation water and environmental flows.

Of the SECV's four major power station interests, one Loy Yang B (1,000 MW) was a joint venture with Mission entered into in 1992 by the newly elected Kennett Government and later fully sold off by that Government. The other three, Yallourn (1450 MW), Hazelwood (1,600 MW) and Loy Yang A (2,000 MW), were sold for a total of \$9.5 billion. In addition to these base-load stations, there were the SECV owned gas stations, Ecogen (966 MW) and several hydro-electricity stations, Southern Hydro (about 450 MW).

At the time of their privatisation, the Government argued that the value and likely long term market price of electricity in Victoria was about \$38 per MWh, the cost of establishing a new gas fired unit. The vesting contracts for electricity which covered the progressively diminishing market that was not open to competition were also set at that rate.

In the event, prices have mainly been much lower than this. Prior to 1999 they were at around \$25 per MW, falling to \$22 in 1999. Prices have risen in 2000 and 2001 to \$36-37 as demand has gradually increased.

The very low prices that have prevailed most of the time since privatisation demonstrate the absurdity of claims that the system is subject to excessive monopoly induced prices. And the absence of any such high prices is reflected in the value of the assets. In spite of the vast improvements in the businesses' efficiency levels (discussed in the next section) low prices have severely reduced the value of the power stations. The giant Loy Yang Power was sold for \$4.7 billion but the value of its equity was at less than a half of this in 2002 and its major owner has been seeking a buyer for some time. Powergen, the majority owner of Yallourn Energy is also reported to have incurred a major loss in selling its interest.

In summary, available information indicates the following post privatisation asset price movements.

Table 3 Estimated Changes in the Asset Values of On-Sold Victorian Electricity and Gas Businesses

Sector	Business	Approx Change in Value
Retail	Pulse (2002)	+ 40%
Distribution	Citipower (1998)	+ 5%
	Powercor (1999)	+ 5%
Transmission	Powernet (2000)	-17%
	GasNet (2001)	-20%
Generation	Loy Yang (2002)	-25%

Outcomes in Performance of the Victorian Electricity Industry

Distribution

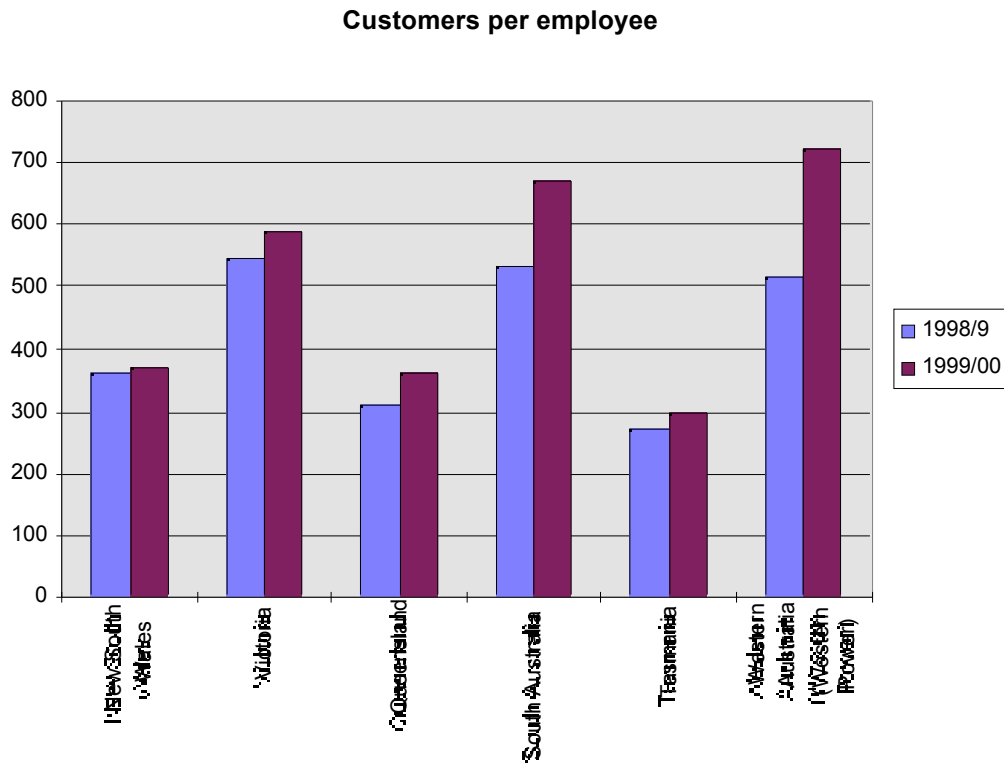
Victorian distribution businesses since privatisation have shown marked increases in productivity and in customer service. Data limitations hampers documentation of this improvement and Victoria's relative performance against other states. Personal communications with two companies revealed considerable savings post privatisation. In the period between privatisation and mid 1999, Eastern Energy (TXU) made savings in operating costs of 22 per cent, while CitiPower, which inherited municipal council owned electricity businesses that were even less efficient than the SECV, made savings of 38 per cent.

However fully documenting the productivity performance of the distribution businesses is difficult. This is not least because data in the ESAA annual publication *Electricity Australia* shows some inconsistencies, possibly because of the difficulties of unscrambling retail and distribution personnel in earlier years.

On the available data, between 1994/5 and 1999/00 NSW, Victoria and Queensland all achieved labour productivity gains of 45-50 per cent, while South Australia achieved a 71 per cent (mainly since its privatisation) and Western Australia showed a 71 per cent improvement.

The latest data is more likely to be more reflective of the true position and the following chart indicates a far superior labour productivity in Victoria to NSW. On that basis, in 1999/00 labour productivity in NSW and Queensland respectively was only 62 and 61 per cent of that of Victoria. South Australia, post its privatisation, appeared to have leapfrogged Victoria, while Western Australia (which covers only the South East interconnected system) was also well ahead.

Chart 1



Source: ESAA

The above yardstick measuring efficiency levels, labour productivity, excludes the important component of capital productivity. Energy businesses themselves attempt to determine their relative efficiencies to set internal targets (and, in the regulated environment in which distribution operates, to deter regulators from seeking excessive price reductions).

Benchmarking one of the Victorian distribution businesses against 104 US utilities, the Pacific Economics Group (PEG) found that the Company's computed overall cost is 44% of that of the average U. S. firm. The study's findings would have placed United Energy close to the frontier of efficiency. However the ORG reduced the business's line prices by 13 per cent which was amended on appeal to 9 per cent⁷.

⁷

	Specified 2001 Price Reductions (X Factors)	
	Original Determination	Re-Determination
AGL	17.1	15.5
CitiPower	12.4	11.2
Powercor	19.6	14.5
TXU	21.8	18.4
United Energy	12.9	9.1

The following table shows United Energy compared with the average in the sample compiled by PEG.

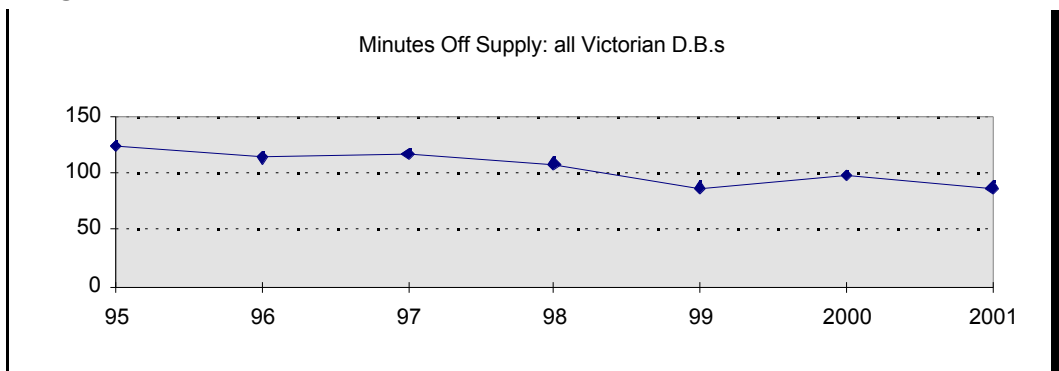
AVERAGE VALUES OF VARIABLES IN THE BENCHMARKING STUDY				
Variable	Units	US Sample Average	United Energy	United Energy / Sample Average
Total Cost	Thousands of \$/US	377,782,714	171,158,508	0.45
Price of Capital Services	Index Number	1.00	1.07	1.07
Price of Labor Services	\$1,000(US) per Employee	51.75	36.59	0.71
Price of Materials	Index Number	1.12	1.01	0.97
Total Customers	Customers	695,777	538,000	0.77
Retail Deliveries	MWh	17,758,000	8,448,605	0.36
Miles of Distribution System	Miles	20,489	7,387	0.36
% of Distribution System Electric	Percent	89%	100%	1.12

Source: Pacific Economics Group, Kaufmann, L., Lowry, M.N., and Hovde, D., *United Energy Performance, Results of International Benchmarking*, November 1999, p. 39

Reliability of distribution in Victoria has improved considerably since privatisation. The ORG sets targets for each of the businesses, targets that are far less controversial than those covering prices.

A steady improvement in reliability, as measured by minutes off supply, has been experienced in the years since 1995 as illustrated below.

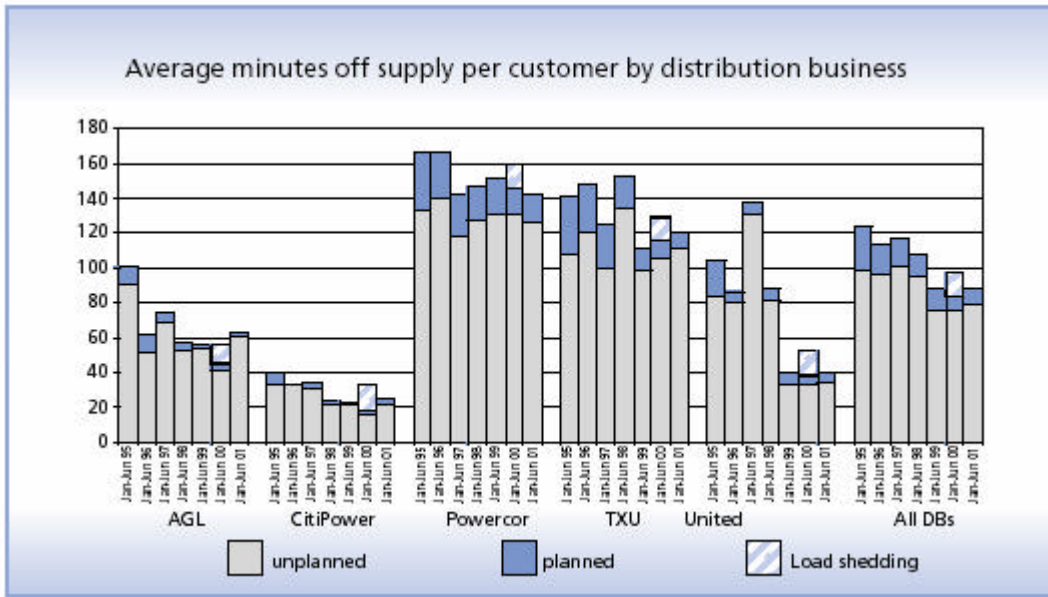
Figure 1



Source: ORG

The improvements have been seen in all five distribution businesses as illustrated in Chart 2 below.

Chart 2



Source: ORG

A small increase (4 per cent) was recorded in minutes off supply in the first half of calendar 2001. This was ascribed to more normal storm situations following a very benign first half year in calendar 2000. The Office of the Regulator General noted that the distribution businesses remained on track to the target reductions in minutes off supply that had formed part of the 2001 rate re-set.

In respect of reliability, the Victorian outcome has shown relatively more improvement than that in other jurisdictions. Chart 3 illustrates this.

Chart 3

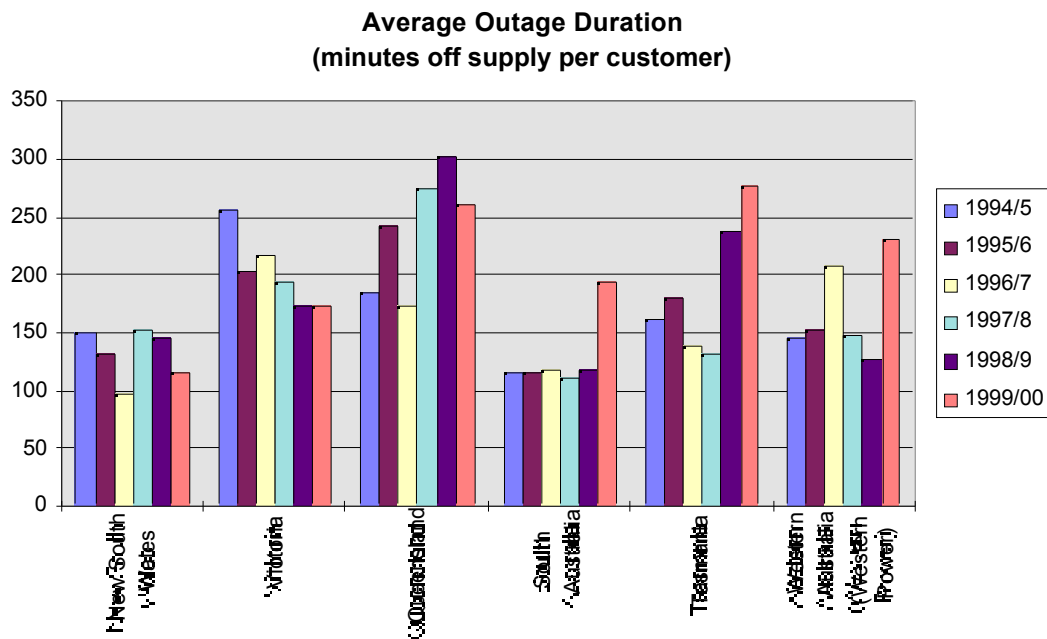


Chart 3 shows that improved performances have been logged only by Victoria (outages down 32 per cent) and NSW (outages down 24 per cent). Other states have shown increased outage times of between 41 per cent (Queensland) and 71 per cent (Tasmania)

Generator Performance

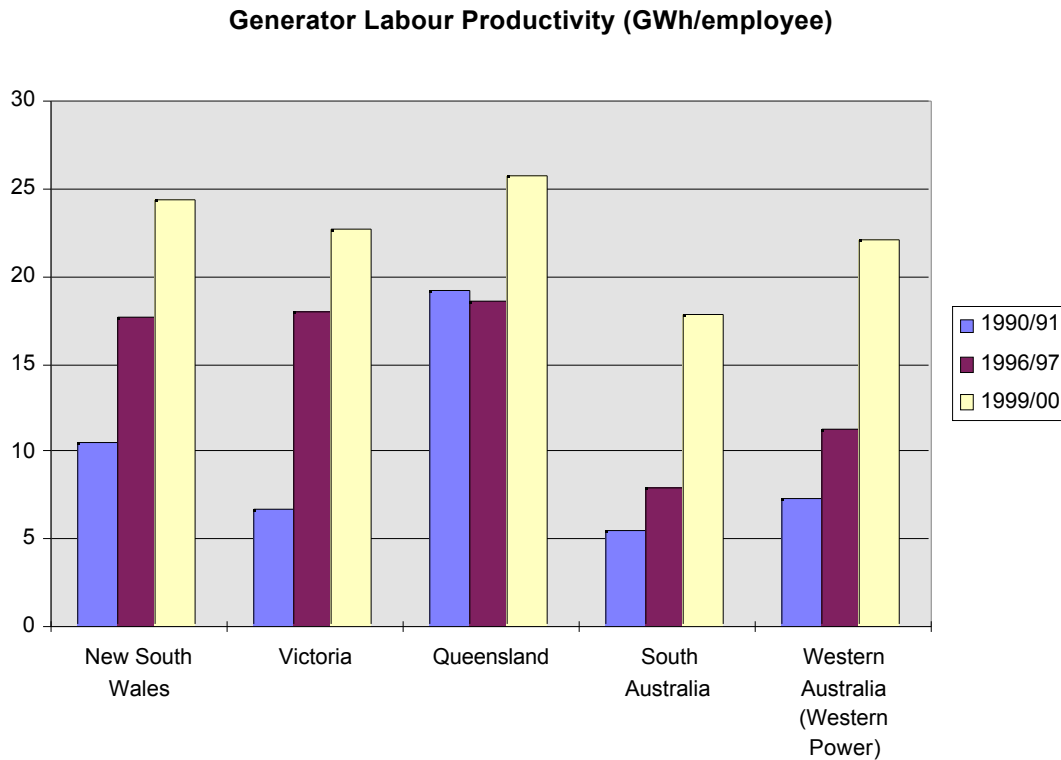
As with distribution, it is rarely possible to assemble simple benchmarks allowing state by state comparisons between generation businesses. Using simple labour productivity is difficult. For example, output per employee, as well as having definitional problems with employees following a greater use of contract labour, also compares Victoria's brown coal generators with other states' black coal generators which employ less labour simply because they do not own and mine their own coal. Similarly, gas generators and hydro-electric generators require fewer staff.

In addition, as with distribution businesses, profit figures are now not readily available as a result of the privatised businesses' profits normally consolidated into parent company accounts and not separately identified.

Nonetheless, there is sufficient data to be able to construct a reasonably accurate picture of the operational performance of the privatised Victorian generators and to compare this with the performances of other states' generators.

Chart 4 illustrates the comparative trends.

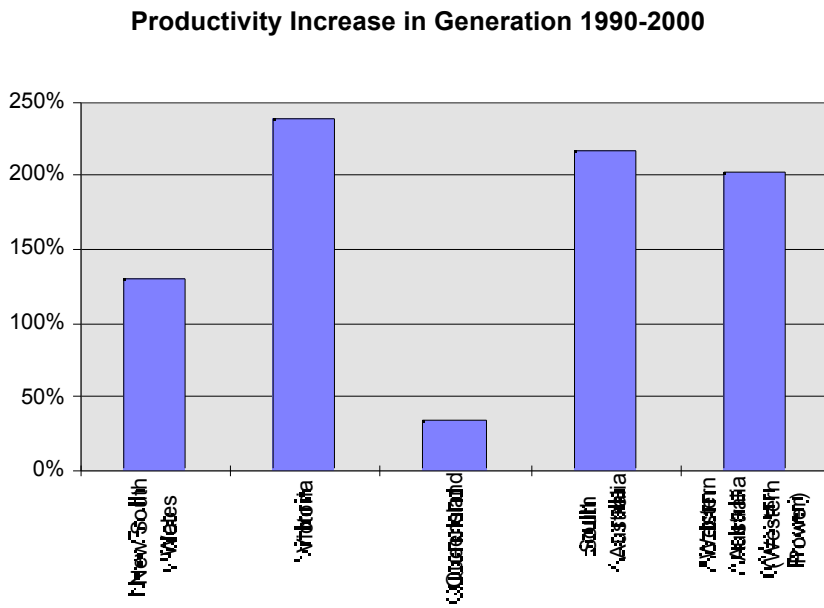
Chart 4



Source ESAA

The available data shows that productivity in all state systems has experienced marked improvements. That of Victoria has, however, been the strongest. Over the past decade, the Victorian generators' productivity has increased by 237 per cent. The comparative performance of five states is shown in Chart 5 below.

Chart 5

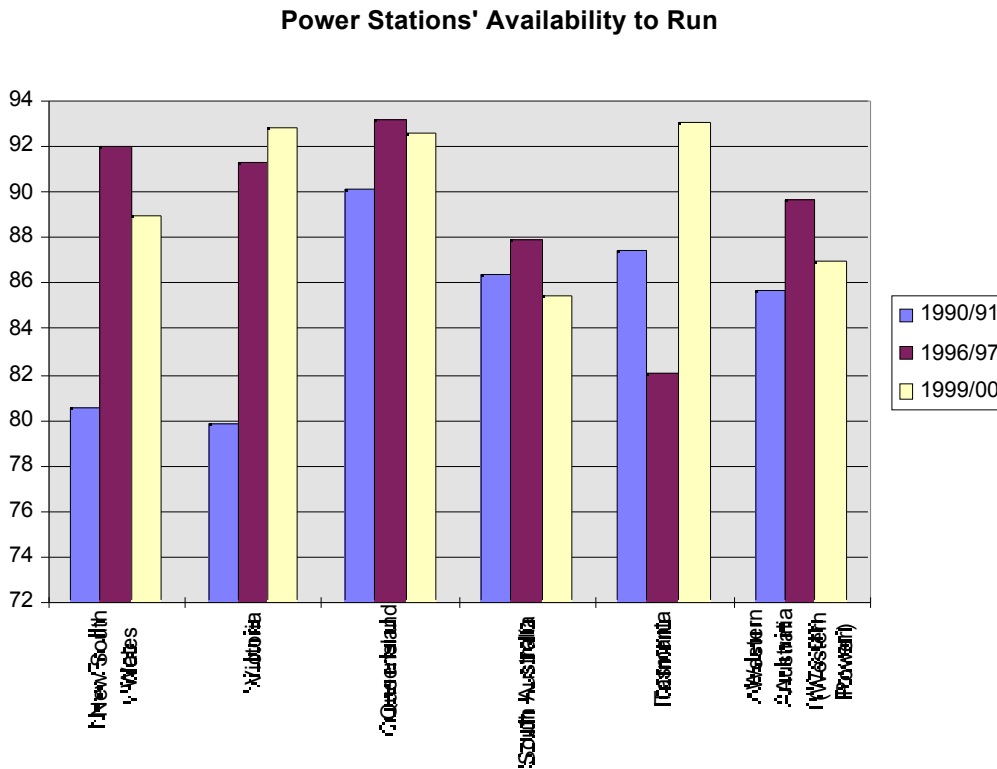


Source ESAA

Part of the improved productivity of the generators is their greater availability.

Not only did the pre1992 generation sector exhibit gross over-manning but the generators were available for less than 80 per cent of the time. Having generators available to run at short notice allows an ability to meet unexpected changes in demand, thus bringing about lower prices at such periods and allowing higher earnings by the generators. The improvement in Victoria's generators has been outstanding as Chart 6 illustrates.

Chart 6



Source: ESAA

Prices to Customers

The shift to a competitive market means it is no longer possible to discover prices in the traditional way by dividing revenue by energy usage and subdividing this into different customer classes. The ESAA publication *Electricity Australia* conducts its price surveys on this basis. The historical data remains useful for the regulated customers, where energy price is determined by governments and the customers are captive.

However for contestable customers it is not possible to provide such estimates. As the Eastham Task Force found in South Australia, "The Task Force was not able to ascertain the number of business customers who have signed contracts with other retailers, nor the price of those contracts. However information from AGL suggests that of the total contestable market in South Australia, around 40% of customer load will be supplied by other retailers from 1 July 2001. This 40% figure has been confirmed by information available to the South Australian Independent Industry Regulator (SAIIR) which also indicates that a number of retailers are now active in South Australia⁸." A somewhat larger percentage of the larger (over 160kWh) contestable customer load has shifted in Victoria. In noting that prices quoted to South Australian contestable customers had risen

⁸ The state government electricity taskforce, final report, 29 June 2001

by 30-35 per cent, the Premier also quoted evidence that similar price increases were evident in other markets.

Retail competition means it is now not possible to specify the average price outcomes on a statewide basis. What we can be sure about is that though governments can force down prices for some periods of time, competition will result in the lowest sustainable prices.

Changes in the Values of the Privatised Businesses

Victoria, and to a lesser degree South Australia, achieved prices far in excess of those expected for the privatisation of electricity assets. It is most unlikely that the same sums would be raised today. In part the high prices were due to a general outward-facing attitude of US and UK energy businesses that prevailed during the mid 1990s but has since faded. Other reasons include the experience of low prices for energy and government decisions on regulations.

The more recent improvement in prices has led to increased interest in building new capacity. Some 1,200 MW of gas fired peaking is either newly built or planned. This plant has all been either built by retailers or has been based on long term contracts with retailers.

This pattern of development represents an important rejection of the hypotheses that plant would be built purely on market price expectations. Financiers of generators and their equity investors are risk-averse and demand some comfort in terms of long term commitments on the part of customers to the output planned. The high level of new planned generation investment confirms that such commitments are not difficult to obtain when the counterparties are also expecting a tightening of the demand-supply relationship and upward pressure on prices.

At the outset of electricity markets there was much dispute about the nature of the “pool” on which the market should be based. This debate continues with the UK having moved to a pool that formally involves contract for power and a residual pool closer to real time in which “unders and overs” are bought and sold.

In reality, all electricity markets are based on this model. Buyers and sellers contract for all of their requirements weeks, months, and years in advance, progressively tailoring needs to demands close to real time. Energy retailers work on a slim margin with a product that has a highly volatile cost and customers who require the product at a known price on demand. For them, having certainty in price and product availability is an imperative. Generators too, knowing that the price can fall to quite low levels, wish to know in advance that they have buyers who will pay the price they need.

Private ownership is ideal for this market process. It avoids the political driven decisions that seem inevitably to take over under government ownership. And it places disciplines on managers and owners that can never be fully replicated within the public sector.

These matters are the crucial issues in electricity privatisation. However, the high asset sales prices and consequent ability to wipe out most debt, together with the achievement of competitive final prices to the consumer has resulted in a classic win-win outcome for Victoria. The taxpayer is better off by hundreds of millions of dollars a year. The electricity consumer is also better off as a result of the increased efficiency and consequent lower prices that have been brought about.