# The National Electricity Market and its Effect on South Australia

## Speech Notes

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### 1. Introduction

I am very happy to be able to respond to the invitation from the Press Club to speak to you today.

None of you could be unaware of the intense public interest in electricity matters and this so-called "National Electricity Market" at the present time. But you may not understand what has been happening. I plan to try to remedy that today.

I have no doubt that I would not have been invited to give such a speech this time last year. Talk at that time would have been all about how clever the State Government had been to raise over $5 billion by leasing the previous ETSA assets and how this would reduce State debt and interest payments.

This time last year, I would have been ridiculed had I predicted that electricity prices for some 40% of the South Australian market would increase by 60-90% this year and remain there for the next five years.

This time last year, I would also have been ridiculed had I predicted that Californian wholesale electricity prices would increase by a factor of ten, forcing the State's major utilities into bankruptcy in just seven months.

This time last year, and out of a sense of real frustration, I wrote a book describing the development of the power industry in Australia. It is called "Warring Tribes — the Story of Power Development in Australia" — after that cutting comment that "Australia is less of a nation and more a series of warring tribes". I thought at that time that I had inherited the curse of Cassandra — cursed to always tell the truth but also cursed that no-one would believe me. It is especially critical of the National Electricity Market and predicted that problems would inevitably emerge.

This year, I am rather like the little boy in the Hans Christian Anderson story of the "Emperors New Clothes", and I am here today to tell you that the "National Electricity Market Emperor" indeed has no clothes, and that it is about time that our leaders faced up to this unpalatable fact and did something about it.

I can hardly get away with calling myself a little boy, however. I have been associated with the energy industries in Australia for over 45 years, in both the public and private sector, and involved in the industry in several of the Australian States. I am well qualified to be able to talk on this matter.

But even I have been surprised at the speed and severity of the crisis which engulfed California in just seven months beginning twelve months ago at about this date. I must also confess that I have also been a little surprised at the speed with which the problems which I predicted have emerged in Australia.

I trust that we are not heading for the same situation as California— but I fear that the similarities outweigh the differences. We clearly need to be very careful.

So I am honoured to be with you today and to discuss:

- how we got into this situation;
- where the major problems are, and
- what has to be done to correct the situation.

I hope that my remarks will help you to understand the situation at little better.

## 2. How we got into this situation

In my book, I point out the fact that that the Australian constitution leaves the responsibility for electricity and gas supply to the individual States and provides for very little, if any, involvement on the part of the Commonwealth Government. Over the years the States have jealously guarded these constitutional rights and taken an intensely parochial attitude towards electricity supply (and other matters as well) — leading to Australia having one of the least interconnected electricity systems of any comparable country in the world.

There is an Adelaide link in my book. In it, I quote extensively from a Presidential Address given by Sir John Monash in 1926 here in Adelaide. After his distinguished career in the first World War, Monash was given the task of building an integrated electricity supply system in Victoria — which he did with very great skill.

Even in 1926, Monash was aware of the advantages associated with a strongly interconnected electricity systems. He spoke in that address of the great project of the "linking up" of powerhouses which was then in progress in the United States, which was envisaged to lead to "power plants on the Atlantic coast being linked up by transmission lines with those on the Pacific Coast."

He even envisaged a "super system" for Australia, when he stated in the Presidential Address:-

"... of the amalgamation of power supply undertakings for the express purpose of effecting the electrical linking up of power houses; and also a rigid standardisation of voltage, phase, and frequency; so as to permit of free interchange of electrical energy between the several systems.

In this way alone can we achieve the desiridatum that an electric supply super-system, covering large territories and serving a large population, may attain the highest practical economies of operation."

So the Australian States had good advice available from the outset.

But they ignored that advice and proceeded to develop their electricity systems independently, choosing different transmission voltages, and even different frequencies at one stage, and ignoring opportunities to interconnect their separate systems, The different transmission voltages in use in the various states are the electrical equivalent of the more well known railway gauge problem. All the important practical interconnections between States require at least one transformation step.

There were at least two major opportunities to take an integrated approach to electricity supply in Australia prior to the current attempt.

One was associated with the development of the Snowy Scheme, when Victoria scuttled an elegant and sensible integrated electricity network developed to cover New South Wales, Snowy and Victoria. You may have noticed that South Australian interests were not paramount at that time.

Another was when the Zeidler Committee — set up in the late 1970s when Australia was expecting a "mineral boom" — decided that there was no persuasive case for stronger interconnections between the major States, but maybe just a modest connection into South Australia. This Committee made its decision based on generation costs provided by the States, which were subsequently shown to be greatly in error — but the Zeidler Committee was not reconvened nor were its recommendations revisited.

It was finally some very unwise and unjustified decisions made in Victoria in the early 1980s to proceed with another expensive development in the Latrobe Valley, which became the "straw which broke the camel's back". It was very apparent at that time that New South Wales had surplus low cost capacity that could be used to satisfy the combined requirements of the two States at a much lower cost — but Victoria refused to consider the possibility, despite receiving several attractive offers from NSW.

This finally precipitated moves at a Federal level to encourage greater co-operation between the States, and the ultimate irony was that constructing the first half of Loy Yang B effectively bankrupted the SECV, and the Labor Government was forced to sell 40% of the project to the dreaded private sector to enable it to be completed.

There followed a very rare period of co-operation in the late 1980s, associated with some political imperatives facing Bob Hawke as Prime Minister, Paul Keating as Treasurer and Nick Greiner as Premier of NSW. This led to an attempt by them to seek a new and co-operative approach between the Commonwealth and the States in the second century of the Federation.

This led to the series of Special Premiers' Conferences — the forerunners of the Council of Australian Governments or CoAG — in which electricity reform featured prominently.

It is very informative to look at the original objectives of the so-called "National Grid" process as set out by the Special Premiers' Conference held ten years ago. They were all about:

- building stronger interconnections;
- selecting new power plants on a "competitive multi-state basis";
- providing access to the grid systems to all comers; and
- allowing for direct arrangements between major customers and generators.

Contrast this with what finally happened. We have open access only and none of the others — plus an obsession for short term operational matters rather than getting the long term cost structure right.

After the noble resolutions of 1991, the "Warring Tribes" pushed the utilities out and quickly took over the control of the process. It became intensely political, Governmental and secretive. Attempts by the Commonwealth Government to establish a "National Electricity Strategy" and to form a single "National Grid Corporation" were politely ignored, as was an offer of $100 million to build stronger interconnections, and another offer to buy the States out of the Snowy Scheme.

It was not a pretty process to watch. It was like the joke made when when the European Community was being formed, when it was said that the EC was searching for a combination of German efficiency, French cooking, Italian lifestyle and British culture. Instead, what they got was French lifestyle, German culture, Italian efficiency, and British cooking.

But there was a more sinister problem — and that was the change of direction which took place in Victoria in 1994.

After their election in 1992, the incoming Kennett Government in Victoria initially stayed true to the general objectives and the plan of action proposed in their energy policy. They implemented a very sensible series of structural

changes to dis-aggregate the previously vertically integrated SECV structure and created a reasonable level of competition in generation by breaking up the generation sector into individual power stations. I was happy to be intensively involved in this series of developments.

During this period there were remarkable improvements in the performance and productivity in the various elements of the Victorian electricity industry, which most people quite incorrectly ascribe to the subsequent privatisation process. Cost of production fell by nearly one third. There is no doubt that the improvements came primarily and dominantly by the introduction of competition, of which a change of ownership may play a part.

This is the important lesson to be learnt from this period.

But the emphasis in Victoria changed quite dramatically in 1994. The imperative quite suddenly became the rapid privatisation of all parts of the industry for the maximum price obtainable, in an effort to reduce the state debt and regain the AAA credit rating which had been lost by the previous Labor Government. Any thought about making Victorian electricity and industry competitive again, or empowering customers — both of which featured strongly in the energy policy — were forgotten in the rush for money.

And the quickest and easiest way to achieve that end result was thought to be to follow closely the process which had been used by the Thatcher Government in the UK when it had broken up and privatised the England/Wales electricity industry in the late 1980s. This included the importation of people, ideas, structures, documentation and terminology copied from the UK — including the importation of their strange and unusual compulsory pool system.

In this system, all electricity must be bought and sold through a common, Government controlled pool. And a single price is set for electricity in that pool, established by the price offered by the last generator who is called up to be loaded to meet the demand. All generators in the market get that price, irrespective of what they offered.

The extraordinary freedom given to generators under the rules has been described recently by NECA when they say:

> "The market rules currently allow generators effectively unfettered discretion to rebid their available capacity, and the price at which they offer that capacity to the market, right up to despatch."

This is verging on the ridiculous. I can tell you that the cost of producing electricity simply does not and cannot vary by anywhere near these amounts. Most of the costs of production are in fact fixed or stable and even the variation in fuel costs from the lowest cost to the highest cost plant is relatively moderate.

This UK-style trading system was and is, and invitation to the generators to

exploit the rules to generate extremely volatile and high prices. Only intense competition between many generators can keep the price under control.

My willingness to assist the Victorian Government ceased at that time, and I became a most unwelcome critic of their actions.

Once Victoria had gone that way, it made it very clear to the other States that they could only have a National Electricity Market if it was consistent with the approaches which they had unilaterally adopted. This took the National Grid process off the rails and it has remained there ever since.

## 3. What are the major problems of the National Electricity Market?

The National Electricity Market finally came into operation just before Christmas in 1998 — missing by a bare two weeks a perfect symmetry of being two years away four times over. Let us now look at the major problems which have emerged since then.

### *3.1 High Electricity Prices*

Electricity prices at the wholesale level (pool prices) initially fell to very low levels in Victoria and NSW during the period of operation of the separate and then harmonised State markets from 1995 to 1998. In the years 1999, 2000 and thus far in 2001, pool prices in Vic/NSW have risen very substantially. For example, the average pool price in Victoria thus far this year is nearly double that for the same period last year.

Prices in Queensland and South Australia have risen to extremely high levels since the start of the National Market. Prices have recently moderated in Queensland, but in South Australia, wholesale prices are much higher than those which prevailed before the new markets began — almost double in the case of South Australia, in fact, and they continue to rise.

To get this into perspective for you, the Government, aide by its advisors at the time, set the wholesale component of the final electricity price at $40/MWh a year or two ago. They were quite sure that it would in fact decrease below $40/MWh this year and next. The final retail price of electricity in South Australia last year was $101/MWh (or 10.1 ¢/kWh in normal units) — so the wholesale component made up about about 40% of the total.

I argued at the time — to the Government, to the Premier and to the ACCC — that the wholesale price of electricity in South Australia would be whatever one or two generators (the owners of Torrens Island and Pelican Point) decided it would be and the risk was that it would be much higher. The Government would not move — but at least the ACCC set that $40/MWh figure as a fixed cap on the wholesale price paid by domestic consumers — and it is a good thing that they did this in the light of what has happened.

When I left for Europe three weeks ago, the wholesale price being quoted for contracts in South Australia covering next year (2002) was $63/MWh and when I returned on Friday, this price had increased to $70/MWh — and is predicted by the traders in the market to continue to increase during this year.

It has been this steep increase in wholesale prices in this State (and Victorian prices for next year have almost doubled compared to the prices they paid last year) which is pushing up the retail prices in these two States, and directly led to the 60-80% increase in retail prices for the "grace period" customers — essentially business and commerce. But I gather that the increase is only 13.6% if you are the State Government apparently!.

These prices are far too high to be acceptable. They are also well above the levels well above the levels needed to support new power station investments, and well above those which would apply assuming that fully competitive conditions existed.

I ask you — do we have to cripple South Australia's economic future in order to encourage investment in power generation facilities and line the pockets of a small number of selected overseas and Australian investors?? I think not.

We need to inject a dose of reality and common sense here.

In fact, the weighted average wholesale price of the NEM States has risen back to the levels which prevailed before any of the new competitive markets began operation. And this is during a period of time when the cost of most of the factors used in the production of electricity (coal, gas, labour and the cost of money) have fallen or remained constant — not increased.

This should be a cause of great concern.

The potential impact of the increases in wholesale prices on retail prices will be severe as they work their way through, as all South Australians now know. The so-called "grace period" customers — essentially all of the medium sized industries and commercial customers — have been exposed to dramatic retail price increases and a lack of choice. The 60-90% price increases locked in for as long as five years, which have been imposed on these customers, will have a devastating effect on their individual businesses and on the State and National economies.

And the domestic customers in South Australia have yet to see what is in store for them at the end of next year — when they are allowed to access the "benefits" of this new competitive market — but it will not be pleasant unless something radical is done in the meantime.

And already in Victoria, retailers are seeking price increases of up to 15%, also as a result of the escalating wholesale prices.

This is not what the man in the street believed that the National Electricity

Market was going to produce. There will be a public backlash and we are seeing the start of this in South Australia at the present time.

### *3.2 Volatile Electricity Prices*

One of the major reason why wholesale prices in the National Market are so high is that they are extraordinarily volatile. Prices on any one day can range from as low as $10/MWh to as high as $5,000/MWh with an average of around $40/MWh — a range of 125 times the average value.

I am afraid that the volatility in electricity price in this dysfunctional market is due to the exploitation of the very loose rules of the market — not by naturally occurring economic factors.

### *3.3 Poor Reliability of Supply*

The reliability of supply under the National Electricity Market has also been deficient.

The Reliability Panel of NECA has set a target for the reliability of the wholesale market. They want to see a failure to supply electricity of no more than 1 GWh for every 50,000 GWh successfully supplied. There is nothing wrong with this target.

But the National Market has failed to meet its own standards — by a factor of ten times the standard for the one year for which official results are available. And from what I can see of the second year, the performance will be nearly as bad. Again, South Australia has been the victim of many of these instances of failure to supply.

### *3.4 Lack of New Generation Investment*

The National Market has failed to bring forward new generation investment in the southern states. Only in Queensland, where wholesale prices have been extraordinarily high in previous years, has there been a flood of new investment. And in that State, retail prices are kept under control by a rather blatant cross-subsidy between Government-owned generators to Government-owned retailers — a practice also being followed in NSW but one no longer not available to South Australia or Victoria.

Victoria and South Australia in particular, are in a parlous state for at least the next two summers, with dangerously low reserve plant margins. The current high prices are now bringing forward a rash of new proposals, which are to be welcomed, but they are all too small and too late to prevent price and reliability problems over the next two summers.

I argue that the current reserve margins set for the National Market are too low to ensure reliable supply, but even accepting them as they are, the

Victorian/South Australian Region will be deficient in generation next summer, and most probably the summer after as well — despite the new investments. The target reserve margins urgently need review.

There will undoubtedly be reliability and supply problems in both Victoria and South Australia over the next two summers, and they will be associated with very high spot prices as the generators take the opportunity to raise prices due to the tight supply/demand situation — just as they did during the past winter and summer periods.

### *3.5 Lack of Interconnections*

Despite the priority given in 1991 to the establishment of new and stronger interconnections between the States, only one major interconnection (the QNI 500-1000MW link) has proceeded, and this was approved before the National Code process took place.

And, with the benefit of hindsight, thank goodness this happened, otherwise we would still be waiting for it.

The DirectLink project at 180MW has proceeded, and MurrayLink is now under construction, both as so-called "Market Network Service Providers" — but there are real problems with this way of working, despite the undoubted credit which is due to the developers of these innovative projects. These projects are just the same as generators and are motivated to restrict capacity and to promote differences in regional pool prices — not to reduce the differentials.

Recent data shows that MurrayLink, despite being rated at a nominal 200MW, in fact allows only an additional 25MW to enter the Victoria/South Australian Region from NSW. Its impact is very small.

Despite the fact that it is the southern States in dire trouble during the summer months and that there is still 2000MW or so of surplus capacity in NSW (and more to come in Queensland), there has only been a very recent and rather belated move by Victoria to strengthen the interconnection which really counts — the one between NSW and Victoria.

And the one proposed between NSW and South Australia — now called SNI and sorely needed for several years — is bogged down in interminable studies and bureaucratic procedures.

A further problem with the way that interconnectors are handled in the NEM is the unacceptably high risk of trading across them. This has particularly affected South Australia, since the approximately one third of the State's electricity coming in via the existing interconnection with Victoria cannot effectively be contracted — thus eliminating the chance for retailers other than AGL/ETSA Power to offer firm supply contracts in the State.

The loss of economy due to constrained interconnectors amounted to some $100 million between Victoria and South Australia last year. The amount is precisely calculated by NEMMCo, and some of it is put up for auction — but no-one takes the responsibility for reducing this waste of money — which can only be done by building stronger interconnections to eliminate the price differentials between the States.

The Government of South Australia acknowledged this fact by declining to include interstate imports in the Vesting Contract arrangements, because of their lack of firmness and the inability to contract over interconnections.

We have got ourselves tied up in a knot of our own making on the facilitation of interconnections. It needs to be cut and cut decisively and soon. It is a major failing of the National Electricity Market.

*3.6 The emergence of "Market Power" in Electricity Markets*

There is a growing concern and understanding all around the world that "market power" issues will always exist to some extent or another in electricity supply. They have not been given the attention they deserve in the National Market, and especially in South Australia.

We have made the mistake of adopting a trading system which can only work when there is fierce competition between a very large number of generators acting independently. But we do not, and can never have, sufficient independent ownership and competition in generation to satisfy this requirement, especially while interconnections remain of limited capacity.

Prior to it being abolished, the UK pool had 38 participants — but still could not eliminate the ability of the generators to raise prices by exercising their market power within the pool rules. By comparison, we would have less than 20 generators if we succeeded in forming one national market.

Capacity withholding and "strategic bidding" and rebidding are becoming far more obvious and blatant in the National Market, but NECA appears to be quite happy to accept the most specious of reasons — including straight profit maximisation — as acceptable and takes no action!

One of the most widely read papers I have prepared recently is called "How to succeed in the electricity business without really generating — capacity withholding in the NEM"! It details how easy it is for generators to exploit the existing rules.

We must either step in and impose severe limitations on the ability of generators to make use of the market power they hold — and the present Code is notably silent on this issue — or we must change the trading system, or do both.

I favour doing both.

Given what happened in California last year, and in England and Wales in 1994/95, I sometimes wonder whether the compulsory spot market model is not inherently unstable. Once the generators get a feel for the freedom that have been given in the rules, pool prices can rise very quickly to astronomical levels. There is no feedback mechanism to prevent it — in the absence of a strong and vigilant regulator with the power to step in quickly.

And a "strong and vigilant regulator with the power to step in quickly" is not to be found in the Australian National Market structure.

It took just seven months to bring the Californian electricity market — which had disturbing similarities with the Australian market — to it knees. This is a sobering thought for those who care about electricity supply in Australia. And the UK market had to be regulated to cap the average wholesale price from 1994 onwards, when the pool price suddenly increased to almost four times normal over a period of a few months.

It does not take long for one of these markets to run out of control if the generators overplay their hand.

### *3.7 Problems with Regulation*

We have too many regulators by far, sometimes one each for gas and electricity in each State, a separate one to issue licences and at least two at a National level.

This is a recipe for duplication, spreading of scarce resources, inconsistent approaches to regulation and is conducive to "passing the buck" with no one organisation bearing the regulatory responsibility for the whole market. We are seeing all of these effects. "And they all with one accord began to make excuses".

We are also well out of balance in our regulation. While we regulate the activity of network owners down to the last nut and bolt, we allow the generators complete freedom to bid what they like up to a cap which is perhaps 150 times a "normal" price, and to offer whatever level of capacity they wish. We need to reduce the regulatory burden on network owners but substantially increase what are called "market monitoring" and "market power mitigation" measures in the USA to curb the use of "market power" by the generators.

We need to rationalise our use of regulators and make sure that those we retain can exercise the proper degree of control and take real responsibility for the outcomes of the market.

We have also created two new national companies — NECA and NEMMCo — which many think have run out of control with poor governance arrangements and whose performance can legitimately be questioned. Major changes are needed here. I would, for example, abolish NECA and severely curtail the responsibility of NEMMCo.

## 4. The impact on South Australia

South Australia was once a rather reluctant participant in the National Electricity Market, and tended to qualify its support for the concept at every opportunity. The State had an existing 20 year contract with Victoria and NSW, which was delivering low cost energy over the interconnection. The State also opposed (correctly in my view) the use of a UK-style compulsory spot market, but wilted under pressure from the other States and finally dropped its objections.

South Australia also strongly (and correctly) favoured stronger interconnections, and initially joined with NSW is promoting the concept of a 250MW "RiverLink" interconnection between NSW and South Australia.

In more recent years however, South Australia has taken actions which were not consistent with achieving a competitive electricity market and which have aggravated and intensified the inherent problems of the National Electricity Market which I described previously.

For example, the State has:

- changed its mind about RiverLink and then actively opposed it in all the available forums and in public (including NECA and NEMMCo, where the State has part ownership);

- restructured the generation sector with scant regard to providing competitive pressures, such that:

  - there are only three significant independent generators in the State — NRG Flinders, TXU-Torrens, and Australian National Power;

  - the contract for the Osborne cogeneration plant was allocated to NRG Flinders, thus depriving the State of a possible independent source of generation;

  - Synergen was sold to National Power, again missing the opportunity to introduce an additional competitor;

  - since NRG Flinders operates at base load, and most of the National Power-owned plants operate only at peak loads, prices in the State can be set most of the time by one player (TXU-Torrens) or at best by two players when Pelican Point is the marginal plant;

  - the proposals for new plant are only coming (so far) from the existing generators, with little sign of greater diversification of ownership and hence any greater level of competition.

- formed only one retailer (now AGL/ETSA Power), making retail

competition difficult and virtually non-existent. This was aggravated by the Vesting Contract arrangements which allocated hedging contracts to that retailer tying up virtually the entire generating capacity inside the State, leaving competing retailers to try to contract over the interconnection, with its unacceptably high risks;

- effectively given up its control over the wholesale, transmission and retail sectors by leasing the various companies to the private sector.

This combination of actions has left South Australia with clearly inadequate competition in generation, inadequate interconnection capacity with the other States, a lack of incentives to invest unless prices are unacceptably high, virtually no retail competition, and a complete lack of control over wholesale price levels and their subsequent effect on retail prices.

As a consequence, South Australia has the highest average electricity tariffs of all of the States participating in the NEM and the second highest average electricity tariff of all States (exceeded only by Western Australia with its small scale and high fuel costs). And with the very high increases now applying to the "grace period" customers an coming for domestic customers, South Australia could easily soon topple Western Australia from its perch.

It is not a happy situation, and it shows signs of getting worse before it gets better.

## 5. What should we do about it?

What should we do about all of this? I said that I believe that radical reform is required — not band-aid solutions or patches, nor more voluminous and unreadable changes to a National Electricity Code which is already unreadable.

I believe that we need radical reform in three major areas:

- Reform of the Trading System, including;

  - ¶ abolishing the compulsory pool as soon as possible;
  - ¶ imposing temporary limitations on bidding practices of generators in the interim period before a new trading system comes into operation — probably imposing temporary price caps;
  - ¶ operating with direct contracts between generators and retailers/customers at freely negotiated prices and conditions;
  - ¶ using a Power Exchange to adjust contractual positions;
  - ¶ forming an efficient last hour balancing market.

- Reform of the Transmission arrangements, including;

  - ¶ make the transmission companies responsible for the costs of congestion and of losses;
  - ¶ mounting a programme to increase the capacity of interconnectors

between the States;

- ¶ regulating them using incentive regulation rather than detailed regulation
- ¶ adopt a simple and fair network pricing system which facilitates trading (maybe "point tariffs" as are used in Europe and Scandinavia).

- Reform of the Regulatory arrangements, including;

  - ¶ forming a single National Energy Regulatory Agency for the wholesale markets;
  - ¶ forming a co-ordinated wholesale/retail regulatory approach including the use of licence conditions to impose obligations and restraints.

But what do we do about the "Warring Tribes"? They still exist and have not changed. If anything their actions are getting worse when it comes to electricity matters.

As unpalatable as it might be, it seems to me that we have to have a greater level of Federal involvement and direction in the electricity industry to make sure that outcomes which are acceptable on the national front are achieved. I have been calling for this, and am pleased to see some response, albeit limited, from both political parties.

These actions I am proposing comprise a mixture of structural changes, reallocation of responsibilities and radical changes to the trading and network pricing systems. They also involve much more intervention and compulsion to curb market power where inadequate competition exists, and to ensure a minimum level of reliability.

They represent a major break from the blind reliance on "the market" and short term decisions which characterise the present system.

Recent overseas developments provide some guidance on what Australia should be doing to repair the damage and get back on track to a properly functioning and competitive market — at least in the longer term.

For a start, Australia is now the only country in the world to cling to the old-style UK compulsory, single priced spot pool. This is an uncomfortable position to be in. It must go and go soon. Even the UK has abandoned it — after trying to patch it up for eight years — and in late March of this year, moved over to a trading arrangement very similar to the best in the world (which is that in use in Scandinavia and parts of the USA). California's compulsory pool went out of business in January — having rightly been blamed as one of the major factors in their catastrophic "market meltdown".

Modern systems use direct bilateral, physical contracts, freely negotiated directly

between customers and generators, with access to a "power exchange", and with a last half-hour balancing arrangement, often implemented on a decentralised basis. The power exchanges can trade capacity and energy, green power tickets, and transmission rights, and they have become well established all over the world. They are the way of the future.

How do we get there? I suspect that the most practical way — short of a crisis induced by a California-like "market meltdown" — is to initiate as a matter of some urgency, a major public inquiry, convened by a qualified and experienced Board of Inquiry, and importantly, independent of the governments which got us into the mess in the first place. I am afraid that the State governments are part of the problem in this instance, and not part of the solution!

I was therefore pleased to see that last Friday, despite the reluctance of the Federal Government, CoAG agreed to establish a three man, independent and expert review of the National Electricity Market. Providing that the Commonwealth and States do not appoint apologists for the present approach, this is a step in the right direction.

## 5. What can South Australia do in the short term?

What can be done in the short term? South Australia urgently needs to:

- encourage new investment in peaking capacity in the State;
- develop stronger interconnections with the other States — especially to NSW/Queensland where a capacity surplus exists;
- reassess the fundamental security of the States' gas and electricity supply arrangements, and move to provide greater diversity of gas sources and pipelines and electricity sources and interconnections;
- diversify its ownership of generation sources to provide much needed competition at the wholesale level. This means encouraging or requiring that new generation be undertaken by new investors rather than the existing owners;
- get some control over wholesale prices. If competition is inadequate to control prices (clearly the case in South Australia) then regulation is necessary. This could take the form of temporary wholesale price caps (a blunt but effective instrument) or by instituting plant specific bidding ranges approved by a regulator — sufficient to allow each plant to make an acceptable commercial return but preventing those plants from gaining benefits from playing around with the market price. An obligation to generate, or incentives provided by capacity payments should also feature in the regulations;
- explore the possibility of using specific licence conditions on generators

and retailers to curb excessive behaviour;

- get some active retail competition going in the State. Given the past decisions of the Government, this can only be done in the short term by sorting out the ability for retailers to write firm hedging contracts across the interconnections or by giving them preferential access to hedging contracts from any new power plants.

Only some of these actions are within South Australia's ability to implement unilaterally, other require changes to be made in the rules of the National Electricity Market and therefore require the agreement of the other States.

## 6. Conclusions

It would be nice to have the luxury of starting to solve the many problems facing South Australia from another starting point — with a more rational and sensible National Electricity Market and with a more rational and competitive generation and retail structure in the State.

That is not an option however, which means that the way out of the problems will be difficult and complex and will take some years to achieve.

I do hope that the behaviour of the market over the next few years remains stable enough to allow the States, the Commonwealth and the regulatory agencies time to discuss and debate amongst themselves and devise a series of "fixes" to the NEM and within South Australia which will prevent an unacceptable outcome for the South Australian community over the next few years.

I fear, however, that that luxury may not be available, and that more urgent, and drastic action is required to redirect the electricity industry into a more satisfactory and controlled state, while still retaining the benefits which competition between multiple players can undoubtedly bring.

Thank you for your attention and I trust that my remarks have thrown some light on a matter which has been obscure for far too long.

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## References

Additional comments may be fund by consulting the following references;


1. "Warring Tribes — The Story of Power Development in Australia", published in August 2000. Copies can be obtained from the web site www.bardak.com.au;
2. Other papers downloadable from the Bardak website at www.bardak.com.au, including:
   - April 2001 - A Study of Competitive Market Outcomes
   - March 2001 - Reliability Panel Presentation
   - February 2001 - Unstable Prices
   - February 2001 - How to succeed in the electricity business without really generating — capacity withholding in the NEM
   - January 2001 - Submission to NEMMCo on the NSW-SA Interconnector
   - January 2001 - The Myth of Falling Electricity Prices in Australia
   - January 2001 - California's Electrifying Experience


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