ISSUE 1822

"In Support of Progress" Newsletter

Date: 17 July 2018

Energy

Once upon a time in Australia…. …states used to own their own electricity utilities. Tasmania had its Hydro Electric Commission, Victoria had its SEC, and so on.

Then in the late 90's, a new federally-inspired "Competition Policy" suggested that power prices would come down if there was market competition.

States were cajoled, enticed and threatened to break up their utilities. Generation, transmission and distribution assets were to now be in the hands of different entities, and generation itself was to be broken up into different entities.

The generators would now compete against each other, to supply into a more integrated "national" grid.

Victoria latched onto the policy with gusto, and immediately sold its assets to private owners, while NSW and Qld maintained their now competing assets in state hands. Tasmania also retained the three separate entities in state hands, being Hydro, Transend (now Tas Networks) and Aurora). However, unlike in other states, the generator (Hydro Tasmania) remained intact as a single operator.

The theory behind this breakup of assets was that if a number of generators were competing against each other by making bids into a "bid stack", with the cheapest the first to dispatch power, prices would come down. And for a while it did so.

At that time the main supply of power was from thermal generation. Coal and gas were used to make steam which then drove steam turbines. Generators had to be ready to produce power, which meant that they had to maintain a head of steam. It was definitely in their interest to run their kit such that they could run their machines continually and therefore provide a regular level of supply to the market. On again-off again scenarios were highly inefficient and costly.

generator	units	$/unit
D	40	$90
C	20	$50
B	40	$40
A	50	$30

Generators bid into a "bid stack" every half hour, and the lowest bid would be the first to be dispatched. The diagram shows a theoretical bid stack. "A" has offered 50 units at $30/unit, "B" has offered 40 units at $40/unit and so on. So "A" will be dispatched first, then "B" and then "C" etc., until demand is met.

Each has their own reasons for bidding different amounts at different rates. "C" may have plant offline, "D" might be a supplier of hydro power, which can be switched on and off at short notice. And if "D" was a hydro company, it would change its bid price from time to time depending on the water levels in its dams.

Given the above,

- If the market requires 60 units of power, then the 50 units of "A" gets dispatched, plus 10 units of "B". The price paid by the market for the full 60 units is $40/unit.
- If the market wants 100 units, then all of both "A" and "B" gets despatched, plus 10 units of "C". The price paid by the market for the full 100 units is $50/unit.
- If "C" goes offline, for whatever reason e.g. equipment failure, then "D" is called upon to provide the 10 units needed, and now the price paid by the market for that 100 units of power is $90/unit.

The system design is fine as long as there is a greater level of supply that there is demand, because every generator wants to dispatch some power, and will bid as low as it can to do so.

In order to protect against price variability, retailers entered into contractual arrangements for most of their supply of power, but the spot market remained.

And the system did work well – for a while anyway. The system had become a national system with a national operator and regulator, a new bid stack was set every half hour, and thermal generators were bought and sold by various players coming into and out of the market, and the system operated.

However, over time, circumstances changed

First of all, the Federal Government, faced with demands based on a climate change policy, attempted to set a price on carbon. This process has been drawn out, fraught and tortuous. It continues to this day. Basically, energy policy failed when it came to a carbon policy - to tax or not to tax etc.)- and as such generators were unsure what the future held. For generators it was simpler – and safer - to run down their generating asset, spend a minimum amount on maintenance, and to maximise profit, than it was to run a full maintenance program and/or invest in new plant. Uncertainty became the key driver.

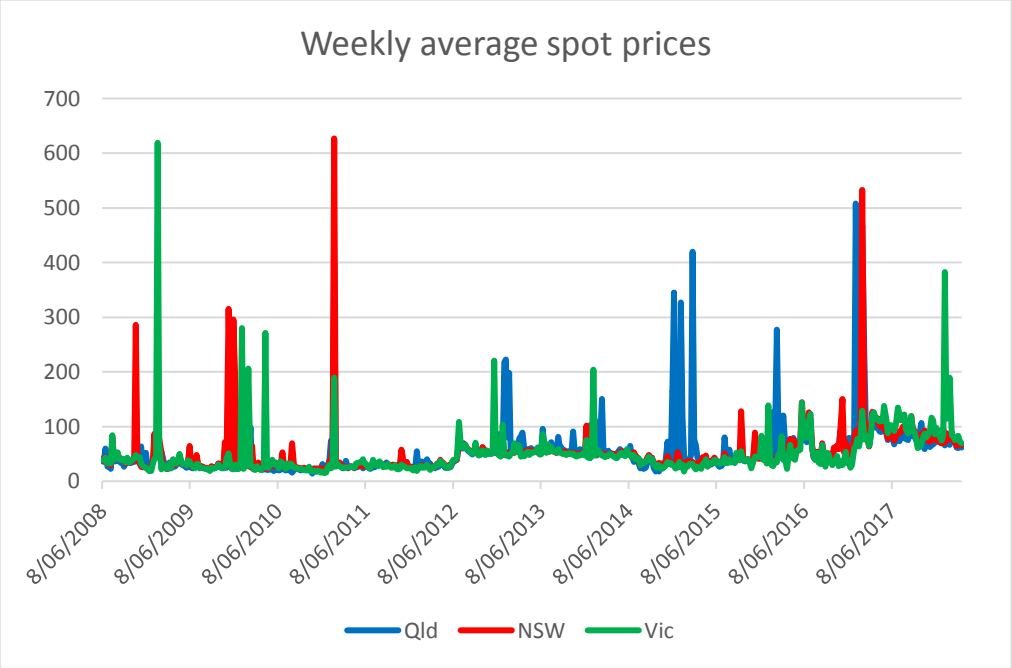
In the example above, "A" runs an increasingly unreliable plant until such time as "A" closes it altogether. The closure by "A" means less generation capacity is available, and demand begins to reach supply. The remaining generators begin to bid at a higher value, because they can, and that leads to price rises. In a real sense, they begin to "gouge" the market. Or should I say, market forces at work.

Complicating matters further has been the advent and promotion of renewable energy. Supported by massive subsidies, renewable energy companies began to invest in solar and wind energy. The problem of course is that the supply is not guaranteed, it is unreliable and unlike Hydro power, it cannot be stored. So, they place their bids in the stack at $0.

Once renewable power has been dispatched (note its unreliability due to sun and wind), soon the next available generator is called upon to fill the gap. in the case above it will be "B", and then "C", to satisfy demand. However, "C" is now less certain of its dispatchability, because of the variability in supply by the renewable generators, and its profitability/efficiency starts to fall. Eventually it too decides to shut up shop.

Demand is now fast outstripping supply, there has been no new investment in generating plant because of the uncertainty, and those left in the game are ratcheting up their dispatch prices, simply because they can.

While all of this was happening, the transmission companies, their price regulated based on their asset value, and being natural monopolies not faced with competition, invested heavily in upgrading (read gold-plating) their systems, thereby increasing their asset value and thus being able to charge more for their service.



The picture tells the story. The wholesale price of power has lifted from an average price of around $30 10 years ago and is now sitting around $80.

In all of this the public interest has taken a back seat.

It was fascinating to watch the government plead with the generators recently to keep their plant operating "in the national interest". The fact of the matter is that generators have no care and no responsibility for a" National Interest", unless forced by regulation to do so, and so such pleas will fall on deaf ears, as they have done with the calls for AGL to keep the Liddell power station open in NSW.

Tasmania has until recently benchmarked the wholesale price against the mainland (read Victorian) wholesale price. And renewable energy suppliers have been quick to argue that Tasmania should continue to do so. Well, of course they would. Because the bid stack price is so high.

Tasmania should no longer benchmark against the mainland price for the reasons given above. The world has changed. The wholesale price is no longer being driven by a surfeit of demand, but by a shortage of supply. And Tasmania does not suffer such a shortage.

The Government is presently negotiating its latest policy iteration, the National Electricity Guarantee, which requires generators to demonstrate both reliability and a control on their carbon footprint, but it is not in place yet.

In fact the problem has been a failure of policy, which has left generators unsure what the government is doing about pricing, subsidies and taxes. The answer is simple. Replace baseload power with yes, baseload power.

The ACCC has now released a report acknowledging what has gone on for a considerable time now, and what many are calling "rorting" the system. The report is a godsend for the government, which now has available a scapegoat for its continuing lack of policy certainty.

No wonder energy policy is in such a mess.

Meanwhile, Tasmania is embarking on a continuing increase in supply, with pumped hydro and new wind farms on the agenda. There is talk of a second BassLink to enable Tasmania to become the "battery of the nation". Hyperbole aside, and notwithstanding the policy dilemma, it should happen.

Macquarie Point

So, it has finally come to this.

The Hobart Lord Mayor has now publicly suggested that Macquarie Point (or enough of it) should be set aside as a caravan park for grey nomads.

After all the consultations, all the consultants' reports, all the plans, all the resets, and after the grand vision for a conference centre, a maritime precinct, an Eden Centre and a reconciliation park, not to mention previous iterations such as convict walls, a China town, and a housing precinct, and the millions of dollars spent to date, the Lord Mayor wants it to be a place for grey nomads to camp out.

"These are the tourists we want", he said.

What is a greater surprise is that the City Council has been a player in the game, with various considerations being given by it to the Macquarie Point project under the planning scheme, including zoning, traffic etc. But no, the Lord Mayor wants a caravan park for grey nomads.

Speechless? Yes I am. It has now reached a state of high farce and exposes the very clear fact that this is like a ship without a rudder, wallowing in high seas.

The Lord Mayor sure knows how to overstep the boundaries. He is the figurehead of Council. Although entitled to hold a personal opinion, and I do not begrudge him that, he does hold the position of Lord Mayor, and thus he is the voice of Council.

Do we expect our political leaders – such as the Premier, Will Hodgman or the Opposition leader Rebecca White - to present personal views, different from or unrelated to that of the government or party they lead. Of course not. They would be torn apart limb from limb. Chaos would reign.

Apparently not according to the Lord Mayor.

Maybe it's time he considered becoming a grey nomad himself.

.

Further informationcan be found at *www.julianamos.com.au.*