

## Notes for “Energy Summit”: 16/9/08

Thanks for the opportunity to share some thoughts.

I’ve been chair of the EC for 11 months. So I thought this might be a useful opportunity to reflect on some of the challenges the Commission has faced in that time and to share some preliminary conclusions about the role of the Commission.

I’d like to cover three main topics:

- The events of this winter
- How to think about security of supply; and
- The regulation of transmission investment

### Winter review

Last week the Commission acknowledged that we are now out of the South Island min-zone. That is, on no previous hydro inflow sequence would we now face the risk of involuntary power cuts. Accordingly we adjusted our risk meter back to “Medium”, changed the basis on which we would dispatch Whirinaki to the full cost of its fuel, and announced that we are reviewing the events of the winter, including our own performance, so that we can draw the appropriate lessons for the future.

Because it is obvious that a public body isn’t well-placed to review its own performance, two outside advisors will assist us: David Hunt, former CEO of Contact Energy, and John Isles, a company director and Commission Rulings Panel member. I don’t want to pre-empt their work or the Commission’s ultimate conclusions in any way. So let me this morning just give you a flavour of some of the issues I think we need to consider.

1. It is obvious that different generators have different perspectives and commercial positions. Ordinarily that is healthy. It spreads risk and promotes competition. However, when the Commission or the sector as a whole faces some form of security challenge, only limited tools are available. For example there is no power to require anyone to generate.
2. The Commission does have the power (under the Electricity Act) to require generators to “*hold or provide for reserve fuels (including water)*”<sup>1</sup>. This power has not yet been used. Indeed the regulations that would be necessary have not yet been formulated.

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<sup>1</sup> s172D(2)(a)

3. On the other hand we do now have rolling cut regulations in place. The Commission used the emergency procedures in the Act to recommend them to the Minister, so we now need to consult on them. In the event we haven't had to use them, but they are now in place for the future.
4. Obviously a key aspect of the review is the Commission's decision-making in relation to the plant at Whirinaki, particularly its offer price and the appropriate policy in future. The parties' different commercial positions led to sharply conflicting views about the Commission's actions.
5. The one point that does stand out, however, is that setting the price for this plant puts the Commission in an awkward position. In this one respect we become a participant in a market that otherwise we are supervising. And for a plant which arguably is too small to have much impact or, as occurred later in the season just gone, in the wrong place to be useful. The review will look at all these issues.

### **Security of Supply**

One of the most vexing issues this winter was the sense that we had been here before. That is, that for the 3<sup>rd</sup> or 4<sup>th</sup> time in a short span of years consumers were being asked to "be prudent" in their use of electricity. For the record, the pattern of recent years looks hard to discern. In the last decade we have had very dry years, dry ones, "normal", wet and very wet. Those who argue we haven't built enough need to consider: "enough for what?"

The review will consider the facts of the position we started from. How unusual was this year? What should we have been able to cope with? But the most important point that strikes me about the situation we faced and arguably may face again is that neither the Commission nor the government (nor anyone else for that matter) has the power to command generators to invest in new plant. Nor do we have the power to stop them doing so. The only significant approval that is usually needed to generate electricity is in terms of the Resource Management Act. So any shortfall in generating capacity is not necessarily easily remedied. Those who promise to ensure that more capacity is built may also care to explain how they will do so.

But is there in fact a shortfall? In the course of this year the Commission has begun to monitor the public record in relation to generation projects. Currently the total of plant under construction, plant approved but not yet being built, approved but under appeal, and awaiting approval, exceeds 4,000MW. If built that would amount to a 40% expansion in current generating capacity. Even allowing for some retirement of existing plant, this is an improbably large expansion. Yet it

counts only what is on the public record – not the many other possibilities of which the Commission is aware.

The reality, of course, is more complicated. Generators frequently take a project through to its planning consent, then wait 'til the time seems most opportune to invest, bearing in mind their forecasts of likely demand and the actions of their competitors. Understandably they are unlikely deliberately to build so much ahead of likely demand as to collapse wholesale prices. Which means that we do indeed have only limited competition. But then we knew that already.

Some see this limit as an inherent flaw in the electricity “market”, along with the fact that, as both generators and retailers, the resulting “gentailers” are essentially self-hedged. Worse, some argue, many end customers are protected from the impact of events like dry winters either by the hedging contracts they have purchased or by the fact that they have long-term contracts that do not adjust with wholesale prices. Most residential customers are in this position, perhaps by choice, but also because until recently there was no means of recording the amount they used at any particular time. In future, smarter meters may well affect the approach that retailers adopt to periods of water (or any other form of) shortage. Instead of using television commercials to urge viewers to save electricity in future it will be rational for generators exposed to high spot prices to offer customers a tariff that rewarded them for using less – as in California last year.

Meanwhile, some argue, a difficulty with our market is that so few customers are actually exposed to it. Indeed one might almost argue that the only customers exposed to high spot prices are those who have chosen deliberately to run that risk. The Commission is on the look out for measures that might usefully and practically enhance the levels of wholesale or retail competition. We outlined a range of such measures in the Market Design Options paper we released earlier this year. The Commission is grateful to all those who took the time and trouble to respond. We are now assessing carefully the various responses. We also await with interest the result of the Commerce Commission’s long-standing investigation into the electricity system from the standpoint of the Commerce Act. I am pleased that the timing of these two major exercises is proving opportune.

Given that there is little I can usefully say at this point about the content of either exercise let me simply make this observation. The key choice is not between a market or regulation (or even between light and heavy-handed regulation), but rather the appropriate balance between market and regulation. That is, what regulation do we need to support as much market as we can achieve given New Zealand’s circumstances? What most distinguishes New Zealand from other countries is not the philosophical or governance choices we have made, but the physical characteristics of our system: its still dominant hydro nature, the limited volume of storage

available, the long transmission system, and the limited number of generators and retailers. These are the principal facts within which we seek to optimise security and cost.

### **Transmission Investment**

Now let me turn from generation capacity to the other potential constraint on the country's supply security, namely the capacity of our transmission system. This is a core responsibility of the Commission, in tandem of course with Transpower. Despite proving a minefield for misunderstanding it has also, curiously, proved very satisfying. This is because, unlike many other aspects of the Commission's work, one is able to point to concrete (or perhaps that should be copper) results. This year the Commission has approved a new 110Kv line on the West Coast of the South Island. We have given preliminary approval to the replacement of the HVDC link – subject to a conference to be held next week. And shortly we will address the proposal for a second 220Kv line into Auckland to strengthen security there and further north. In the year to June 2008 the Commission approved over \$1b of transmission investment and it will consider at least as much again this year.

Such dollar sums provide a simple illustration of the value of the Commission. We act on behalf of consumers to review the proposals of the expert engineers at Transpower. Because the grid is necessarily a monopoly it does not make sense to simply "leave it to Transpower" (or to rely on the duties owed by its directors). There needs to be an independent review – at least of major charges to consumers. Some monopolies may be constrained by mere contestability (the threat of competitive entry). But no one is going to duplicate the electricity grid, and while occasionally there are non-transmission alternatives to the grid they are unlikely on their own to constrain Transpower from any temptation to overbuild or overprice.

On the other hand, the country needs a regulatory system that works fairly and efficiently. Importantly, the Commission cannot amend Transpower's proposals. It can merely accept or reject them. So it can't require the grid planner/owner to build something it doesn't think appropriate.

The test that the Commission applies is essentially an economic one: is what is proposed more economic than any reasonable alternative? So, for example, in relation to the HVDC, the Commission examined the appropriate size of the link that might be needed in future, as well as alternative timing. This does not mean that we could necessarily require Transpower to continue to operate Pole 1; it was simply a hypothetical question that the Commission answered by using its models of forecast demand and likely supply. As we have recorded in our preliminary decision, the Commission's modelling actually indicated that there would in fact be a small net benefit from delaying the upgrade project: a net present value benefit in the order of \$12m. In relation to a

project in the order of \$700m, the Commission reached the preliminary view that Transpower had not applied the Grid Investment Test required by the rules unreasonably. And we will reconsider this determination in the light of next week's conference.

There is a view, it seems, that the Commission may be duplicating Transpower's work. I have seen no evidence of that. There is also an understandable concern that the detailed work we undertake in relation to large investments like the HVDC and NaaN might be applied with equal rigour to more minor, routine work. The simplest answer to this worry is that that would break our own rules. It would also violate the Grid Upgrade Investment Review Policy the two organisations collaborated to produce over the last two years. I commend the document to those interested in this area. It is pleasing to see that it is already leading to useful change, for example in the approach Transpower is taking to consultation in relation to the proposed Wairakei Ring upgrade.

### **Conclusion**

I do not believe with Voltaire's Dr Pangloss that all is necessarily for the best and that we already enjoy the best of all possible worlds. On the contrary, I have no doubt that we can make improvements. Indeed I am determined that the Commission should actively seek them out and implement them expeditiously. But I am also conscious – particularly at a time when the country is debating the direction it will take for the next three years – that we need to be careful of our starting point.

Our institutions are still young. Electricity markets world wide are not much more than a decade old. Now is not the time to start again from scratch. Or to refight ancient esoteric debates in obscure code such as “heavy-handed” and “light-handed”. New Zealand's experiment with industry self-regulation failed because the industry (including its customers) was unable to agree on the way forward in areas like how to price transmission and how to set the rules that determine voltage and frequency. There seems just as much disagreement about these matters today.

The nature of the electricity system requires that such matters are determined in a way that links the system together coherently. New Zealand's system of an independent industry-specific regulator is now main stream. Its details matter. By all means let us look to improve them. But let us not ignore the fundamental reasons why we need to regulate such essential monopoly functions as building transmission, and linking supply and demand through a wholesale market.

**David Caygill**

**Chair**

**Electricity Commission**