The New Zealand Electricity Industry and the Limits of Competition Law

Rex Ahdar*
Professor, Faculty of Law, University of Otago

Introduction

> It would be trite to observe that there are no easy and simple answers to the design of energy policy, if it were not for the fact that so many have claimed that there are.[1]

Matters that irritate and beset the lives of ordinary New Zealanders are legion. Joining the usual litany of populist grievances alongside greedy parliamentarians who abuse the privileges of their office, judges delivering 'soft' sentences for violent criminal offenders, the fate of the head coach of the faltering All Blacks (the national rugby team) is the ever-escalating price of electricity.

Prompted by allegations of anti-competitive conduct purportedly in violation of New Zealand's competition legislation, the Commerce Act 1986, the Commerce Commission commenced an investigation into the electricity industry in August 2005. An extensive inquiry, headed by a leading US economist, resulted in a lengthy report published in May 2009.[2] The verdict was damning: the four largest generators had a substantial degree of market power which they had well and truly exploited. The extensive quantitative evidence indicated that over a six and a half year period the generators had earned monopoly rents conservatively estimated to be NZ$4.3 billion and thus average wholesale prices were approximately 18 per cent higher than they would have been had effective competition prevailed.[3] There were 'serious systemic issues'[4] in New Zealand electricity markets. Yet, the report continued, the monopoly prices were 'normal, legitimate profit-maximising behaviour'[5] and the natural product of the concentrated structure of the industry and not the outcome of unlawful antitrust activity. There was no clear violation of the Commerce Act and the Commission could find no evidence to support the many allegations that the generators had tacitly colluded or entered into covert cartel arrangements to fix prices or divide markets, nor had any individual generator engaged in monopolising conduct to foreclose competition.[6] The Commission concluded that it was not even appropriate to launch an inquiry into whether the imposition of price controls was now needed.[7]

The principal aim of this article is to explain why competition law was hamstrung in its ability to curtail the price-gouging electricity companies. In the next two sections, the path of deregulation is briefly retraced and then the current oligopolistic industry structure is outlined. Then the Commission's conclusions that the alleged antitrust breaches, centred upon claims of monopolisation and collusive conduct, were unfounded, are examined. The following section explains why competition law in New Zealand is inherently ill-suited to tackling a network industry such as electricity. The various possible routes to reform the present situation are explored, followed by some final observations.

The tortuous path of deregulation

Before 1987, the New Zealand electricity industry was a state-run affair.[8] The Ministry of Energy oversaw policy and regulation of the electricity sector, the New Zealand Electricity Department (NZED) controlled electricity generation and transmission, and a raft of electricity supply authorities ('ESAs') throughout the country (numbering 61 in 1985) had the responsibility of ensuring regional distribution to industrial and residential consumers. The NZED set wholesale prices for the ESAs, who, in turn, had territorial monopolies and the exclusive control of local retail prices.

This type of government-directed system had existed for decades and readily met customer demand (both industrial and residential) for secure and affordable electricity. But policy-makers in the 1980s, caught up in the broader global philosophical sea change towards deregulation and greater market competition, believed that a more competitive model would produce greater efficiency, expansion and innovation. An interdepartmental review, which focused on the government's role in the electricity sector, identified the need to segregate industry functions, as well as improving economic performance via the introduction of commercial disciplines for trading activities. In 1987, the first phase of corporatisation commenced with the conversion of the NZED into a state-owned enterprise ('SOE'), the Electricity Corporation of New Zealand (ECNZ).

---

* The author is most grateful to Jude Murdoch for his research assistance.

1 Dieter Helm, *Energy, the State and the Market: British Energy Policy since 1979* (rev. ed, 2004) at 6.

2 Commerce Commission, *Investigation Report: Commerce Act 1986, s 27, s 30 and s 36 Electricity Investigation* (21 May 2009)('Electricity Report'). The full report is available at: www.comcom.govt.nz.

3 Ibid., at [272], [686] and Executive Summary at [ii], [xxvii].

4 Ibid., at [276]; Executive Summary at [v].

5 Ibid., at [702]; Executive Summary at [xxx].

6 Ibid., at [469], [612]; Executive Summary at [vii] to [vii].

7 Ibid., at [669]; Executive Summary at [v].

8 The following potted history of New Zealand's electricity deregulation and the landmark policy and legislative milestones is drawn from Geoff Bertram, 'Restructuring the New Zealand Electricity Sector 1984 2005' in Fereidoon P. Sioshansi and Wolfgang Pfaffenberger (eds), *Electricity Market Reform: An International Perspective* (2006) ch. 7 and the following official publications: Electricity Report, ch. 5; Electricity Group, Energy and Communications Branch, Ministry of Economic Development, *Chronology of New Zealand Electricity Reform* (July 2009): http://www.med.govt.nz/templates/MultipageDocumentTOC____6477.aspx; Electricity Commission, *About the New Zealand Electricity Sector* (c 2009) http://www.electricitycommission.govt.nz/publications/about-sector; *Government Policy Statement on Electricity Governance* (May 2009) http://www.med.govt.nz/templates/MultipageDocumentTOC____40723.aspx.

State influence over the industry continued to shrink. The Electricity Amendment Act 1987 removed the need for the Minister of Energy to approve all new hydro-electricity generation proposals. In July 1990 the transmission duties of ECNZ (involving management of the national grid) were split from ECNZ and devolved to a subsidiary corporation, another SOE named Transpower. ECNZ was thus left solely with its generation responsibilities. Similarly, 1990 saw the government formally corporatise the ESAs, placing power boards in the ownership of local trusts, while leaving municipal electricity departments in the ownership of local authorities. The government's 1992 Energy Policy Framework statement captures the new-found government commitment to a more commercially-oriented system: '[Efficient energy services] … will be achieved by the efficient and effective provision of energy services through properly functioning commercial systems with competitive incentives.'[9]

The generation sector was the next to undergo restructuring. The Wholesale Electricity Market Study ('WEMS'), commissioned by the government, recommended substantial changes to the existing market system both to provide a predictable price path for wholesale electricity, and also to enable trading within marginal prices. Crucially, this set in motion the development of competition with the dominant generator, ECNZ. The 1993 independent review of WEMS identified further areas for development, including such matters as the pricing of tradable contracts and the formation of an infrastructure to delineate margins of market operation, with the threat of heavier regulatory oversight. The Electricity Act 1992 formalised these developments. It removed the remnants of the ESA monopoly distribution system, deregulated the sector and reconstituted ECNZ as the industry operator of the competitive generation and retail sectors.

Development of the embryonic electricity markets continued in 1993 with the creation of the Electricity Market Company Ltd (EMC), an entity intended to act as a focal point in the design of the wholesale market. EMC oversaw initiation of an on-line secondary market in trading of ECNZ's 'hedge' contracts, as well as engineering the Metering and Reconciliation Information Agreement ('MARIA'), a multilateral agreement to allow for competition between retailers for customers with half-hour interval meters. In 1995, the government signalled its intention for ECNZ to be split into two competing SOEs (ECNZ and Contact Energy), with Contact Energy receiving ECNZ's Maui gas assets and certain South Island power stations, and other ECNZ energy assets being sold to private entities. The ECNZ restructuring commenced in February 1996. The New Zealand Wholesale Electricity Market (NZEM) formally opened in October 1996. The EMC acted as market administrator, whilst Transpower operated as dispatcher. Electricity prices were established based on bids by retailers in response to offers from generators, and prices were not capped.

The changes brought by Electricity Industry Reform Act 1998 capture the government's emphasis on the fostering of a self-perpetuating competitive market. Part II of the Act provided for the mandatory separation of line and energy businesses, with segregation to be completed no later than 2003. Part VI signalled the threat of price control for distributors servicing domestic and rural consumers, should it be necessary to avert excessive line charges. Part VII strengthened the Electricity (Information Disclosure) Regulations 1994, which, in concert with the statutory obligation on the industry to establish low-cost switching arrangements for domestic consumers to change retailers, was designed to improve consumer choice. Finally, Part VIII stipulated the complete reconstitution of ECNZ into three SOEs.

Deregulation continued in 1998 with the sale of Contact Energy to private interests, whilst the splitting of ECNZ was formalised in 1999 with the emergence of three competing SOE generators: Genesis Power Ltd, Meridian Energy Ltd and Mighty River Power Ltd. Likewise, promulgation of the Electricity (Information Disclosure) Regulations 1999 sought to enhance the efficacy of the existing disclosure obligations upon generators and retailers by facilitating access to already disclosed information via publication on the internet.

The June 2000 report of a ministerial inquiry into the electricity industry reaffirmed self-regulation, but recommended a significant caveat in the form of targeted price control for electricity lines businesses. The 2001 Electricity Industry Bill implemented this by empowering the Commerce Commission to institute price control (in the event of a breach of price thresholds). The Bill also transferred administration of the information disclosure regime to the Commission, further enhancing its watchdog jurisdiction. The creation of the Electricity Complaints Commission, funded by NZEM participants, added a further disciplinary mechanism, one intended to pacify domestic customers by allowing them to now appeal to an independent Complaints Commissioner.

In May 2003, the Electricity Commission was established, thereby marking the end of the self-regulation era. It replaced the NZEM and the MARIA arrangement and assumed comprehensive oversight of the operation of the industry. The promulgation of the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 compelled retailers to make available a domestic tariff that would benefit consumers who used less than the average 8000kWh of power per year. Rising prices in the period 2004-2006 prompted yet another government-initiated review of the NZEM. This review advocated retaining the regulated market, but with several improvements, such as improving the security of energy supply and the encouragement of public investment in generation by lines companies. Consumers received some solace with passing of the Electricity (Disconnection and Low Fixed Charges) Amendment Act 2008, which prompted by a notorious case of disconnection occasioning the accidental death of a low-income residential customer,[10] diminished power companies' ability to disconnect consumers' power in the event of non-payment of electricity accounts.

9 *Chronology of NZ Reform* at point 18.

10 Mrs Folole Muliaga, a mother of four, who was dependent on an oxygen machine, died within two hours of a power contractor cutting power to her home for an alleged unpaid account: 'Mercury and family disagree over power cut death', *New Zealand Herald*, 30 May 2007. Dr Pita Sharples MP, during the Electricity Industry Bill 2009, First Reading (2009) 659 NZPD 8577, reflected: 'Many of us … will be forever traumatised by the death of South Auckland mother Folole Muliaga after the electricity supply was disconnected to the family home.'

The 'greening' of government energy policy saw the revision of the Government Policy Statement on Electricity Governance in 2008 to ensure consistency with the New Zealand Energy Strategy and Energy Efficiency Strategy. The changes here included a goal of 90 per cent generation from renewable sources by 2025.

In July 2008 the Electricity Market Design Review by the Electricity Commission recommended further competition, particularly in the retail market. The Electricity Industry Reform Amendment Act 2008 initiated three main policy changes: (a) thresholds on line businesses' output sale limits were raised, with the aim of encouraging owners of such businesses to reinvest in renewable generation outlets; (b) the strict separation of ownership of generation and lines entities was eased to allow owners of lines businesses to be involved in the generation spheres outside of their geographical lines area; and (c) the statutory definition of 'renewables' was amended to encompass further renewable energy types, such as hydro and geothermal sources, thus allowing greater investment in generation by lines businesses.

This statutory easing was offset, however, by changes ushered in by the Commerce Amendment Act 2008. This Act targeted lines businesses (distributors) which were not subject to competition. It required the Commerce Commission to develop rules, requirements and procedures, known as 'input methodologies', for regulation. Input methodologies for lines businesses were to be finalised by June 2010. The Act exempted 100 per cent consumer-owned lines businesses, given the inherent unlikelihood of such entities exploiting the very consumers who ran them.

April 2009 witnessed the commencement of a full ministerial review of the electricity industry and May 2009 in turn saw the publication of the Commerce Commission Report, the prime focus of this article.

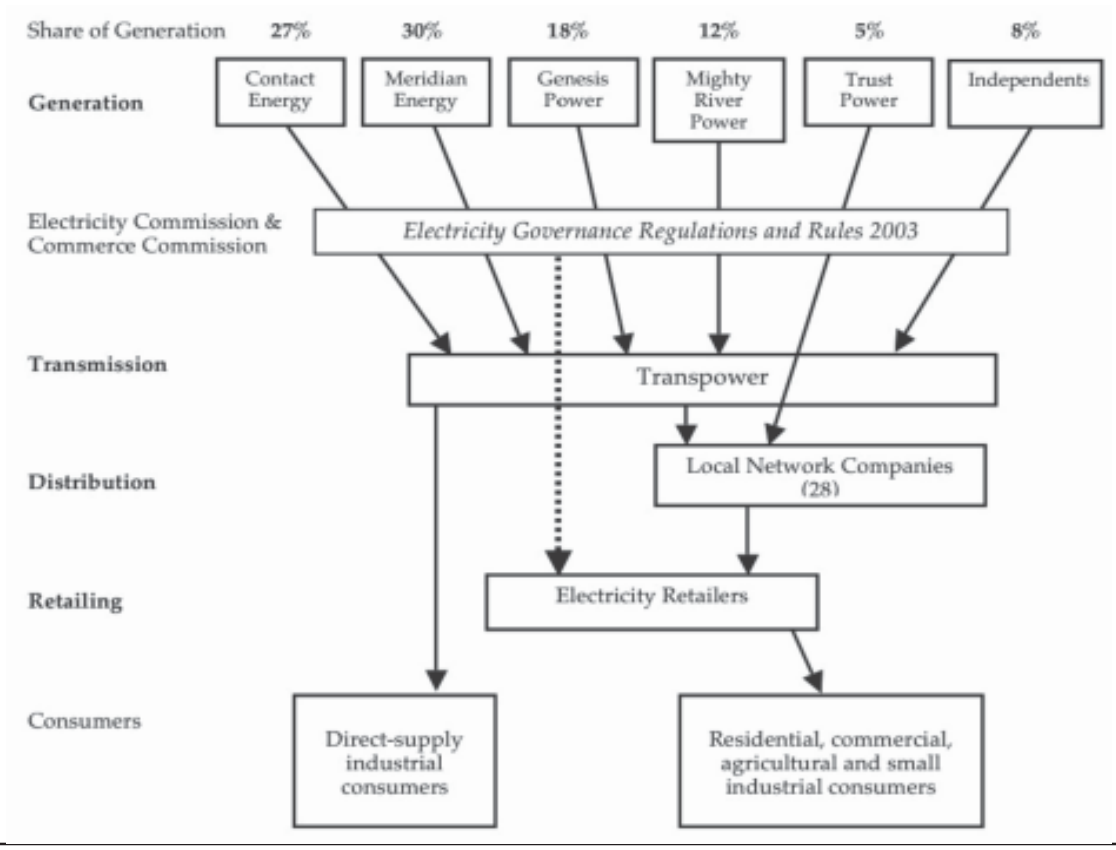
The industry

The current shape of the electricity industry[11] is depicted in Figure 1.

There are four principal structural stages.

At the generation level there are the 'big five' major generation companies: Meridian Energy (30 per cent), Contact Energy (27 per cent), Genesis Power (18 per cent) and Mighty River Power (12 per cent). The fifth largest generation entity is TrustPower (5 per cent) and the remaining 8 per cent is made up of small independent generators and onsite co-generators. Electricity in New Zealand is generated from some 40 hydro, gas, coal and geothermal plants. Transmission of electricity over a high voltage national network grid is the sole responsibility of the owner of the grid, Transpower. Distribution is spread between some 28 distribution businesses or lines companies. They distribute low voltage electricity via the local networks to retailers. Some of the larger commercial and industrial consumers (such as NZ Steel) contract directly with the

Figure 1: Electricity Industry Structure 2007



11 The most accurate account of the industry is that produced by the MED in 2008 and it records the key participants and their market shares for 2007: see Electricity Report at 30 (Figure 1).

distributors for their electricity needs. Retailing of electricity to residential users and the smaller commercial and industrial customers is almost solely the domain of the major generators. The main retailers are thus vertically-integrated firms (generators-cum-retailers) dubbed 'gentailers' and they account for 96 per cent of the retail market. The remaining 4 per cent is divided between a clutch of smaller retailers.

The government has, following conventional wisdom, sought to foster competition at two of the four levels. The transmission level is monopolised and the distribution companies are subject to price controls. This leaves the potential for rivalry at the generation and retail stages.

The Commerce Commission's inquiry and report

The investigation

The Commission commenced its investigation in August 2005 following complaints from many sectors, including the Major Electricity Users' Group, the Consumer Coalition on Energy and individual members of the public, and after concerns were raised by the Minister of Energy.[12] The recurrent theme was the lack of competitiveness of the wholesale and retail electricity markets and the increasingly high prices charged (and large profits reaped) by the main gentailers. There were also allegations of predatory tactics by the dominant players aimed at excluding new entrants and the perception of an unhealthy degree of collusion between them.

The Commission recruited an internationally acknowledged expert on electricity regulation, Professor Frank Wolak of Stanford University, to head its inquiry. The primary focus of the investigation was the state of competition in the wholesale markets. The Commission decided not to investigate the retail electricity market, on the premise that the root of any problem regarding higher retail prices would be the exercise of market power at the upstream wholesale level.[13]

Data on electricity matters is sorely lacking in New Zealand and hence Wolak had to undertake painstaking path-breaking data collection over the next two years. He collected data spanning the period January 2001 to July 2007, covering over 113,800 time periods.[14] Professor Wolak described this formidable exercise:

> The process of compiling and verifying the validity of the dataset for the New Zealand electricity industry has taken several orders of magnitude longer than it required for any of these projects [in California, England and Wales, Colombia, Australia, Spain and PJM (Pennsylvania, New Jersey and Maryland)]. In fact … it has taken me more time to compile and clean the datasets I have received for the New Zealand electricity supply industry than it has taken me to compile and validate the datasets used in all of those other projects put together.[15]

Monopolisation

The Commission investigated a litany of allegations that the major gentailers had engaged in monopolising conduct or, to use the expression in section 36(2) of the Commerce Act, they had each individually taken advantage of their substantial market power for an anti-competitive purpose.

The New Zealand monopolisation prohibition requires three elements to be satisfied.[16] The defendant must, first, have a substantial degree of power in a market; it must, secondly, take advantage of that power; and thirdly, the exploitation of its power must be for one of the three designated anti-competitive purposes (preventing entry, deterring rivals or eliminating competitors).

This first element establishing whether the threshold of substantial market power has been attained requires the Commission to define the relevant markets. It concluded that there were two markets pertinent to the breach allegations: (a) the national wholesale market for the supply and purchase of electricity; and (b) a derivative market, the national market for the supply and purchase of 'hedge' (or 'forward') contracts for wholesale electricity. Other energy forms (such as natural gas, liquefied petroleum gas, coal and wood) were at best 'imperfect substitutes' and did not warrant inclusion in the same product market as electricity.[17]

The Commission noted that there were some 'unusual attributes' that rendered electricity as a product, and electricity wholesale markets, especially susceptible to the exercise of market power:

> Electricity is not storable, and so supply must equal demand at all times to avoid system failure; demand is generally unresponsive to changes in the wholesale price, as most consumers do not immediately face price increases when wholesale prices rise; supply-side responsiveness to price changes can be limited in the short term, especially if plants are operating near to capacity; new entry into supply involves large, sunk investments, and can take many years to plan, receive consents, design, build, commission and finally operate; and the transmission grid may become congested at certain times …
>
> [Further unusual market power] characteristics include frequent and repeated interactions between market participants (every half-hour), a stable market structure and a high degree of transparency (for example, all parties have access to information on hydro output and storage levels). Moreover, given that the supply side of wholesale market is highly concentrated, it would not be surprising if both the unilateral and the co-ordinated exercise of market power may be possible.[18]

In evaluating the market power of the gentailers in wholesale markets, the Commission utilised both quantitative and qualitative evidence. In terms of the former, and armed with the extensive data collected by Professor Wolak, the Commission's verdict was damning:

12 Electricity Report, at ch. 3.
13 Ibid., at [46].
14 Ibid., at [56].
15 Ibid., at [67].
16 See *Commerce Commission v Telecom Corp NZ Ltd* (2009) 12 TCLR 457 at [21].
17 Report at [139] to [141].
18 Ibid., at [239] and [241].

> An overview of the results on a monthly basis shows that during the drier periods of 2001, 2003 and 2005, prices were greatly in excess of competitive levels … In contrast, virtually no exercise of market power was identified in 2002, 2004 and 2007, indicating competitive outcomes on average during those years. Wholesale market power rents are estimated to be $4.3 billion in total over the six and a half year time period assessed, which is, on average, 18 per cent of revenue across the whole generation industry. In years in which the market power is exercised, market power rents represent up to 50 per cent of the wholesale industry's revenue, which corresponds to approximately $1.5 billion in each of the years 2001 and 2003.[19]

This all pointed to the conclusion that the exercise of unilateral market power in the wholesale market was 'a systemic issue', and the commonly-heard industry plea that high prices were due to transmission congestion, and not market power, was firmly rejected.[20] The quantitative findings were subjected to peer review by Professor Nijls-Henrik von der Fehr, of Oslo University, who pronounced Wolak's work as 'fundamentally sound [and] well founded on accepted econometric methods and practices'.[21]

Turning to the qualitative evidence there were three strands. First, there were the gentailers' own confidential company documents. One such document from 2001 stated:

> In a competitive market, generators are expected to offer energy a little above their marginal cost a significant amount of the time. The NZ market however is proving to place considerable market dominance with a few generators. In certain areas, particularly during transmission outages, a single generator may have complete market power.[22]

Another company document, also from 2001, gave this revealing example:

> The wholesale electricity market design from a retailer's perspective is fundamentally flawed and provides generators easy opportunity to game price and exercise market power … Gaming or exercise of market power by generators is achieved by withholding generation or backing off generation for a short period to get the spot price up. A generator offers 350 MW at $40. From the pre-dispatch schedule they see they are going to get 350 MW dispatched. For the next ½ hour they bid 300 MW at $90 as load moves up. They then continue to bid $90 until they see load dropping off. With the spot price being the marginal price, they generate at the margin and instead of making $7,000 for 350 MW they make $13,500 for 300 MW.[23]

Second, the Electricity Commission commissioned a private research firm to conduct in-depth interviews with industry participants. One typical response was this: 'You can't get access to competitively priced electricity. The simple reality is you are competing at [the generators'] mercy in terms of your buying price.'[24] Third, the Commission's own 2006 investigation, involving interviews with large industrial consumers, yielded the same belief that there was limited competition in the wholesale market.[25]

Could potential competition in the form of entry and expansion constrain the market power of the incumbent gentailers? There had been no new entry by independent generators in the 21st century and the meagre market share of the existing independents had steadily reduced since 2000.[26] The International Energy Agency had identified the lack of a 'liquid hedge market' to be a significant barrier to entry.[27] Potential entrants noted that the main gentailers were unwilling to enter into hedge contracts with new entrant generators due to an unsurprising preference for buying electricity from their own generators.[28] The significant cost and time taken to gain Resource Management Act 1991 approvals (including any appeals on planning law points to the Environment Court) was another significant obstacle to entry.[29] Perhaps the key matter was the vertical integration between generation and retail: 'prospective entrant retailers stated that the vertically integrated gentailers are less likely to enter into long term supply contracts than in other overseas markets that do not feature vertical integration between wholesale and retail markets.'[30] Overall, the Commission's 'LET' test was not satisfied: entry and expansion into generation was not Likely, sufficient in Extent or Timely enough to constrain the incumbent major firms.[31] In terms of countervailing power, the Commission's survey of large industrial customers indicated that they considered themselves to be 'effectively price takers, with very little if any effective buyer power'.[32]

The second and third elements were considered together. Had the gentailers taken advantage of a substantial degree of power in a market for an anti-competitive purpose? There were five instances of allegedly monopolising conduct, but all were found to be lawful behaviour.

First, had the gentailers used their market power to increase wholesale prices to hinder retailer competition? The Commission pointed out that charging a monopoly price *per se* does not constitute monopolising conduct under section 36.[33] The Privy Council had clarified this in the *Telecom v Clear* saga (which will be returned to later). The Court of Appeal had construed section 36 to have the 'wider purpose, beyond producing fair competition, of eliminating monopoly profits currently obtained' by the dominant firm. This was, chided the Privy Council, incorrect:

19 Ibid., at [271] to [272].
20 Ibid., at [276].
21 Ibid., at [282].
22 Ibid., at [291].
23 Ibid., at [288]. Thus, 350 x $40 = $14,000 per hour, or $7000 per half hour. By contrast, 300 x $90 = $27,000 per hour, or $13,500 per half hour.
24 Ibid., at [298].
25 Ibid., at [303].
26 Ibid., at [332], [336].
27 Ibid., at [364]. The term 'illiquidity' refers to the small percentage of total generation covered by hedge contracts, the total quantity ranging from 20.1 per cent to 29.3 per cent over the period 2001 to 2004: ibid at [362].
28 Ibid., at [357].
29 Ibid., at [371], [380].
30 Ibid., at [384].
31 Ibid., at [393].
32 Ibid., at [398].
33 Ibid., at [420], [232].

> The problem of monopoly pricing can be tackled in one or other or both of two ways viz by a regulatory body artificially restricting the price chargeable or by introducing efficient competition. The introduction of efficient competition (by such anti-trust legislation as s 36) does not in itself instantly remove the evils of monopolist's overcharging … Such legislation is neither effective nor apt to take the place of a regulatory proceeding, which after detailed investigation of the efficiency of the monopoly system, can set a maximum price for goods or services … s 36 does not operate to exclude [a firm with market power] from initially charging monopoly rents (if any) and the elimination of such monopoly rents (otherwise than be competition) is within the province of Part IV of the Act [the price control regime].[34]

It was wrong to construe section 36 so as to widen its scope 'to produce a quasi-regulatory system' when the Act expressly provided for this in Part IV.[35]

There was, the Commission continued, no evidence that the four main gentailers had priced electricity for the purpose of preventing, deterring or hindering competition at the retail level. The same Privy Council authority precluded the Commission from inferring that an anti-competitive purpose existed simply on the basis that conduct produced anti-competitive effects.[36]

Second, had the gentailers engaged in predatory pricing? There was 'no credible evidence'[37] to substantiate this claim.

Third, had the gentailers sought to influence the government to hinder wholesale competition? Such lobbying efforts that had undoubtedly occurred failed the stringent 'take advantage of' test. This test requires contravening conduct to be behaviour that an ordinary firm (lacking market power) in the same circumstances could not engage in.[38] Infringing conduct is that which dominant firms alone can do. Here the Commission noted, 'any person, regardless of resources or market power, can seek to influence or lobby members of Parliament and Ministers for favourable changes to the business environment.'[39]

Fourth, had the gentailers used their market power to manipulate the availability or price of hedge contracts so as hinder retail competition? Shrinking the hedge market (and driving up the prices) might conceivably prevent rival retailers from entering the retail market by increasing the rivals' exposure to wholesale market price volatility.[40] The Commission could again find no evidence that the incumbent gentailers had affected the availability and terms of hedge contracts for the aim of stifling competition at the retail level.[41]

Finally, had a generator used legal processes, such as rights of objection under planning law, for an anti-competitive purpose? This allegation foundered on the 'take advantage test', as a firm without market power could equally avail itself of its legal rights.[42]

Cartel conduct

The Commission worked its way through a raft of allegations of anti-competitive conduct based on overt or tacit collusion amongst the gentailers.

All the alleged anti-competitive agreements at the wholesale market level were found wanting. An industry meeting known as the CEO Forum did enable the heads of the rival gentailers to discuss and share confidential commercial information. But 'the unilateral sharing of information … by competitors does not of itself breach the Commerce Act.'[43] Public comments in the media may well have facilitated co-ordination amongst the oligopolists, but:

> Parallel unilateral behaviour such as the signalling in the media, or 'conscious parallelism' does not amount to an arrangement or understanding and does not represent a breach of the Commerce Act.[44]

An alleged arrangement between the gentailers to prevent the Whirinaki reserve energy generation station offering its electricity into the wholesale market during periods of tight supply was not supported by the evidence. One alleged arrangement between an unnamed generator and the government to ban new thermal generation stations was authorised by specific legislation and thus competition law was excluded.[45] Another supposed anti-competitive understanding between Contact Energy and Mighty River Power, regarding how the latter would operate a particular generation station (Southdown) to manipulate the market, was similarly not borne out by the facts.

Turning to the alleged collusive arrangements at the retail level, these were also found to be unsubstantiated. There was no market sharing. An interesting allegation of price-fixing was likewise dismissed. It concerned a nefarious car park meeting in 2004 between the chairman of Genesis and an unnamed employee of TrustPower, where pricing in the retail market in Rotorua was raised. Supposedly, the TrustPower employee expressed alarm at the competition presented by Gensis in this geographic area of common rivalry, rivalrous behaviour that he castigated as 'un-commercial'.[46] The Commission was satisfied that the Genesis chairman did rebuff the TrustPower agent's attempt to embroil it in a cartel arrangement, but it decided to issue a warning letter to TrustPower to desist from any further similar conduct.[47] Finally, the Commission could not verify the existence of any long-term supply agreements between retailers and large consumers that might substantially lessen competition in the retail market.[48]

34 *Telecom Corp NZ Ltd v Clear Communications Ltd* [1995] 1 NZLR 385 at 407 to 408.
35 Ibid., at 408.
36 Ibid., at 402.
37 Electricity Report at [439].
38 The counterfactual test, as it has been described, was promulgated in *Telecom* [1995] 1 NZLR 385 at 403 and reaffirmed by the Privy Council in *Carter Holt Harvey Building Products Ltd v Commerce Commission* [2006] 1 NZLR 145 at [52]. For critical analysis of the test, see Rex Ahdar, 'Escaping New Zealand's Monopolisation Quagmire' (2006) 34 ABLR 260.
39 Report at [448].
40 Ibid., at [451].
41 Ibid., at [455].
42 Ibid., at [466].
43 Ibid., at [528].
44 Ibid., at [539].
45 Ibid., at [553]. See section 43 of the Commerce Act for the statutory exclusion of antitrust law.
46 Ibid., at [587], [590].
47 Ibid., at [607].
48 Ibid., at [610].

Overall, there was little or no basis to the myriad antitrust violations claimed. The wholesale market allegations were 'in many cases complaints about the lawful profit maximising behaviour of the generators, reflecting the incentives established by the current market structure, design, and rules.'[49] And as for the retail sector, all the cartel allegations were found wanting, bar one, for which a warning letter was issued.[50]

The Commission commented that higher wholesale prices were generally reflected in higher retail prices, albeit this 'pass through' was a 'gradual' and not an immediate thing.[51] The Commission decided not to embark upon 'a detailed, lengthy and costly study'[52] into this issue, but it did comment that Wolak's study yielded 'suggestive evidence'[53] that retail prices had increased so as to cover the monopoly wholesale prices charged by the generators.

Price control?

The Commission concluded that there appeared to be 'systemic problems in the wholesale electricity market'.[54] Yet the problem of monopoly rents could not, as has been shown, be attributed to anti-competitive conduct by the main players. Monopoly pricing was a reflection of 'the legitimate maximisation of profits'[55] by firms possessing market power and most, if not all, of the co-ordinated behaviour could be readily explained as the usual rational alignment responses of firms in a tight oligopoly. The Commission had the power to institute an inquiry with a view to recommending the imposition of price control under Part IV of the Act. But, it continued, this was not the optimal response: structural solutions offered a superior path, not price caps or other targeted pricing regulatory measures. Thus:

> Regulating prices without addressing issues such as market structure and design is likely to be a second best outcome and its thought by some [economists] to lead to less than satisfactory outcomes in some circumstances …
>
> The Commission does not consider a Part 4 inquiry focusing on price regulation will, on its own, necessarily be able consider [the broader investment and system security] issues … Part 4 of the Commerce Act does not enable the Commission to consider the mix of effective solutions such as divestment of generating assets and market design.[56]

The investigation had revealed a major systemic problem that went beyond the Commission's power to resolve.

Why did competition law come up short?

Competition law proved to be too weak a remedy to rely upon. It simply did not provide effective legal control over the exploitation of market power in electricity markets. There are two inter-related reasons: one is antitrust doctrine itself and the way key concepts and prohibitions in competition law are presently interpreted; and the other, perhaps more significant explanation, is the very role this type of law is expected to fulfil.

Competition law doctrine itself

Competition law, as interpreted by the New Zealand courts, is unable to address many of the recurrent competitive evils that typify much conduct by powerful firms in concentrated markets.

For example, take firstly, conscious parallelism—the phenomenon of deliberate, *independent* alignment by oligopolists. Such firms, recognising their interdependence, decide it is in their rational best interests to match their rival oligopolists' prices (or other market conduct) rather than engage in competition that will incur swift retaliation that will ultimately benefit no-one.[57] This, as we have seen,[58] is not illegal under the Commerce Act. The cartel prohibitions require a 'contract, arrangement or understanding' and this requires there to be a mutual meeting of the minds, concerted action, a consensus—conscious parallelism is not caught by the Act.[59] New Zealand has not been alone in failing to condemn parallel conduct that derives from unilateral decisions to copy one's competitive neighbour.[60] There has been no willingness either to condemn 'facilitating practices' (practices that facilitate alignment) such as information sharing or price signalling.[61]

Second, few monopolisation suits have succeeded in New Zealand after the Privy Council laid down a stringent test for taking advantage of market power.[62] To succeed, the plaintiff must convince the court that the defendant dominant firm's conduct was the kind that a non-dominant firm could not have rationally undertaken in the same circumstances.[63] This 'counterfactual' test of causation is one that is generous to monopolists and allows them ample opportunity to escape liability.[64]

49 Ibid., at [614].
50 Ibid., at [621].
51 Ibid., at [630], [646].
52 Ibid., at [633].
53 Ibid., at [634].
54 Ibid., at [656].
55 Ibid.
56 Ibid., at [666], [668].

57 See Keith Hylton, *Antitrust Law* (2003) at 73 to 75.
58 See note 44 above and accompanying text.
59 See the Court of Appeal in *Giltrap City Ltd v Commerce Commission* [2004] 1 NZLR 608 at [17], [67].
60 For the United States, see Hylton, *Antitrust Law,* at 140 to 141; L. Aldor, 'Oligopolistic Conscious Parallelism under the Competition Laws of the USA' (1986) 16 *Fed L Rev* 74, and for Australia, see *Trade Practices Commission v Email Ltd* (1980) 43 FLR 383; Stephen G Corones, *Competition Law in Australia* (4th edn, 2007) at [5.135].
61 See, for example, *Re NZMA* (1988) 7 NZAR 407; Lyn L Stevens and Miriam Dean, 'Horizontal Price Fixing and Competitor Collusion: In Search of Workable Boundaries' in Rex Ahdar (ed.), *Competition Law and Policy in New Zealand* (1991) ch. 10. For a detailed analysis, see Donald S. Clark, 'Price-fixing Without Collusion: An Antitrust Analysis of Facilitating Practices after *Ethyl Corp'* [1983] *Wisc L Rev* 887.
62 There have been only five successful section 36 cases under the Commerce Act 1986: see Rex Ahdar, 'The Unfulfilled Promise of New Zealand's Monopolisation Law: Sources, Symptoms and Solutions' (2009) 16 *Competition and Consumer Law Journal* 291 at 291 (noting four cases) and, since that article was published, the fifth successful case is: *Commerce Commission v Telecom Corp NZ Ltd* [data tails], High Court, Auckland, CIV 2004-404-1333, 9 October 2009, Rodney Hansen J and Professor M. Richardson.
63 See *Commerce Commission v Telecom Corp NZ Ltd* (2009) 12 TCLR 457 at [75] per Hammond J: 'That [counterfactual] test is simply whether a hypothetical firm that was not in a dominant position but was otherwise in the same circumstances would have acted as the dominant firm did. "Would" in this context means "could rationally".'
64 See Ahdar, 'Quagmire'; Ahdar, 'Unfulfilled Promise'.

Third, the ability of antitrust law to prevent the trend towards even further market concentration was enhanced in 2001 when the Commerce Act was amended and the merger test was changed from the creation or enhancement of 'dominance' to a tougher 'substantial lessening of competition' standard.[65] While this more stringent test captures concerns with mergers that create or further the opportunity for overt and tacit collusion, the current Commerce Commission *Mergers and Acquisitions Guidelines* still permit an already high level of market concentration to be increased via merger. For instance, it is likely that a merger between Mighty River Power (the fourth biggest generator) and TrustPower (the fifth largest) would be permitted under the present *Guidelines'* market concentration 'safe harbours'.[66]

Competition law as a surrogate for direct regulation: the folly of 'light-handed' regulation

The problem is that competition law is being asked to do something it is not designed to do. In the worldwide trend towards electricity deregulation, nations have thought it prudent to couple privatisation of the state monopoly and the emergence of competition with some specialised industry regulation. New Zealand, on the other hand, decided to spurn industry-specific surveillance by a statutory body such as the United Kingdom's OFGEM (Office of Gas and Electric Markets), and instead placed its faith in market forces operating under the general antitrust constraints. The optimistic belief was that reliance upon competition law (supplemented by information disclosure regulations), 'light-handed regulation', would suffice.

New Zealand has often been something of a social and economic laboratory for the testing of new theories. Unfortunately, the light-handed regulation experiment is one pioneering venture that has not proved successful. This was amply demonstrated in telecommunications with the unsuccessful appeal to the Privy Council in the *Clear v Telecom* saga over the thorny issue of what is an appropriate charge for interconnecting a rival to the telephone network owned by the incumbent monopolist.

To briefly recap,[67] the High Court had held that Telecom did not contravene the Commerce Act by charging an access levy based on the efficient component pricing model developed by noted US economists Professors William Baumol and Robert Willig.[68] The 'Baumol-Willig Rule' permitted Telecom to charge *inter alia* its opportunity cost for interconnecting a rival, namely, a fee to recoup the revenue sacrificed in the market due to having to now connect its rival, Clear. The creators of the model conceded that it might enable Telecom, by way of payment from Clear, to continue to receive any monopoly rents present in the current charges. A unanimous Court of Appeal reversed this finding.[69] The President, Sir Robin Cooke, was unable to fathom how a rule which 'would amount to allowing new entry into a market on condition only that the competitor indemnify the monopolist against a loss of custom'[70] could be anything other than anti-competitive. The court was also troubled by the prospect that constant reviews would be needed to ascertain lost opportunity compensation, thereby leading to further disputes. In terms of a remedy however, all the court could do under the Act was to send the parties away to renegotiate. An indication of what it considered to be a reasonable access fee was propounded but it was just that, a recommendation. As Sir Robin put it, 'we are not a price-fixing authority.'[71] Telecom's persistence was to be rewarded in the Privy Council, however, when the Board reinstated the High Court ruling.[72] In theory, the Baumol-Willig Rule was sound, since charging one's opportunity cost for an asset was something a non-dominant firm in a competitive market would likewise do. (The strict counterfactual test of causation made its first appearance here.) The risk of monopoly profits inherent in the Baumol-Willig Rule was not viewed as a serious one and would certainly not generate an interconnection fee so high as to totally preclude Clear's entry. The lesson from this case was, as the author stated at the time, clear:

> The most important message from the case is not so much the vindication of any particular formula – important as that was to the parties – but the narrow role the Privy Council ascribe to section 36. This provision, which is the lynchpin of light-handed regulation, was not, said the Board, to be construed so as to extend its scope to produce a 'quasi-regulatory system'. This made no sense when the Act contained provisions specially tailored to address problems of monopoly profits and the like. The fact that Part IV of the Act, the price control regime, had become a dead letter in recent years was of no moment. The government in theory could still activate the mechanism. What the government could not do was to expect courts of law to make regulatory decisions under a general provision of competition law. *The uncompromisingly strict view of section 36 may well have the effect of forcing the recalcitrant New Zealand government to rethink its philosophy of light-handed regulation.* The New

65 See the Commerce Amendment Act 2001, section 11(1); Stephanie Long, 'Changing the threshold of business acquisitions in New Zealand' (2001) 29 ABLR 82; Grant David, 'Substantial lessening of competition' [2002] NZLJ 155.

66 The Commission is unlikely to find a substantial lessening of competition, and thus proceed any further, where the post-acquisition three-firm concentration ratio in the relevant market is above 70 per cent and the market share of the combined entity is less than 20 per cent. See Commerce Commission, *Mergers and Acquisitions Guidelines,* at section 5.3. http://www.comcom.govt.nz/mergers-and-acquisitions-guidelines/. Here (based on the 2007 market shares shown in Figure 1 above) the CR3 would be 74 per cent, but the market share of the merged entity (Mighty River Power/TrustPower) would be 17 per cent, and thus the acquisition is within the safe harbour.

67 For a comprehensive critique, see Rex Ahdar, 'Battles in New Zealand's Deregulated Telecommunications Industry' (1995) 23 ABLR 77.

68 *Clear Communications Ltd v Telecom Corp NZ Ltd* (1992) 5 TCLR 166.

69 *Clear Communications Ltd v Telecom Corp NZ Ltd* (1993) 4 NZBLC 103, 340.

70 Ibid., at 103, 343.

71 Ibid., at 103, 344.

72 [1995] 1 NZLR 385.

> Zealand courts (or indeed the Privy Council on a future occasion!) ought not to be burdened with such matters. To underscore the point, their Lordships remarked on the 'sterility' of the proceedings which after all this had still not resulted in the setting of a price for interconnection.[73]

The New Zealand Government did ultimately acknowledge that light-handed regulation was a failure and re-regulated telecommunications in 2001.[74] The Telecommunications Commissioner now oversees the industry. In one recent case, a 'slop over'[75] from the *Clear v Telecom* litigation, the Court of Appeal reflected on that experience, noting that 'the Privy Council appear[ed] to have exhibited some distaste for the notion that Courts should somehow become quasi-regulators' and how it resisted the fact of 'the Courts being pushed into the difficult position of being something of an ambulance at the bottom of the cliff'.[76]

Reform

A comprehensive analysis of the path to reform of the New Zealand electricity industry is beyond the scope of the present article. Nonetheless, to pronounce the current approach a failure and to stop there is itself unsatisfactory. This section offers a *brief* sketch of the lessons learned and the areas where further rethinking appears warranted.

First, the verdict of failure is not the author's alone. Dr Geoff Bertram, of Victoria University of Wellington, concluded that 'the most important lesson from the New Zealand experiment has been the failure of the [Government's 1989 Electricity] Task Force's preferred model of light-handed regulation'.[77] Bertram's study of the performance in the industry, from corporatisation in 1994 to re-regulation in 2003, concluded:

> The cost to electricity consumers of the New Zealand Government's regime change from conventional regulation to 'light handed regulation', measured as the amount by which electricity network companies' revenues have been (and remain) higher under the new regime than they would under the old, can thus be measured either as a levy on consumer wealth of $200 million per year going forward, or as a $2.6 billion accrued lump-sum wealth transfer [from consumers to the electricity companies].[78]

Similarly, in a comprehensive transnational survey, a leading US energy economist, Paul Joskow, recently observed:

> Germany and New Zealand's initial decisions to proceed with a liberalization initiative without any sector regulator at all, relying instead on negotiated prices and the constraints of competition law, were *clearly a mistake*.[79]

And now we have the Commerce Commission's 2009 Report based on Wolak's meticulous findings. As the *Otago Daily Times* pithily remarked: 'The reality, as the [2009] report, makes clear is that New Zealanders pay too much for power. The competitive market has not delivered cheaper electricity to the consumer.'[80] How much higher are power prices? The standard estimate is that prices to residential consumers rose by 72 per cent over the period 2000-2008, while inflation went up only 29 per cent in that same time span.[81]

The Commission's 2009 Report identified structural solutions, not industry specific price control, as the best remedy. Price caps on wholesale prices may 'temporarily ease the pain, [but] they will make the patient sicker by the end of the day.'[82] It quotes Joskow, who warned:

> ... efforts to mitigate market power with restrictions on bidding behaviour and price caps, rather than with structural remedies (e.g. divestiture of generating plants by firms with market power, mandatory forward [hedge] contracts, and market design improvements), may have caused more harm than good and adversely affected investments in new generating capacity.[83]

The Commission was optimistic that 'it [was] possible that if market structure and design are addressed there might be little need for regulation of prices.'[84] It quickly added that 'great care is required' lest any cure deter investment in new generation, compromise system security and fail again to address the systemic ability of the dominant few to exploit their market power.[85]

In what Joskow calls 'the "textbook" architecture of desirable features for restructuring, regulatory reform and the development of competitive markets for power'[86] we can, in retrospect, see that several key components were lacking. The lack of a specialist regulator has been noted already and has been belatedly rectified with the establishment of the Electricity Commission.

New Zealand currently has yet another round of reform underway. (One can only wistfully note Joskow's caution that 'a continuing stream' of reforms, rather than one comprehensive package, is not conducive to the

73 Rex Ahdar, 'The Privy Council and 'Light-Handed Regulation' (1995) 111 LQR 217 at 219 (*emphasis added*). The two quoted passages are both from the Privy Council's opinion: [1995] 1 NZLR 385 at 408.

74 See the Telecommunications Act 2001 and the Commerce Commission website: http://www.comcom.govt.nz/telecommunications/.

75 *Commerce Commission v Telecom Corp NZ Ltd* (2009) 12 TCLR 457 at [10] per Hammond J.

76 Ibid., at [9].

77 Bertram, 'Restructuring', at 231.

78 Geoff Bertram and Dan Twaddle, 'Price-Cost Margins and Profit Rates in New Zealand Electricity Distribution Networks Since 1994: the Cost of Light Handed Regulation' (2005) 27 *Journal of Regulatory Economics* 281 at 305.

79 Paul L. Joskow, 'Lessons Learned from Electricity Market Liberalization' (2008) 29 *Energy Journal* 9 at 25 (*emphasis added).*

80 'Timely freeze' *Otago Daily Times* (editorial), 23 May 2009.

81 See, for example, ibid.; Amy Adams MP, Electricity Industry Bill 2009, First Reading (2009) 659 NZPD 8670.

82 Report at [659](quoting Shmuel Oren and Pablo T. Spiller, 'High Electricity Prices in the West: What can be done?' (2000) 138(2) *Public Utilities Fortnightly*).

83 Quoted in the Report at [664].

84 Report at [667].

85 Ibid.

86 Joskow, 'Lessons', at 11 to 12.

sort of large, long-term investment the sector needs.[87])

On 1 April 2009, the government instituted a Ministerial Review of Electricity Market Performance conducted by an independent Electrical Technical Advisory Group ('ETAG')(comprised of six experts) assisted by officials from the Ministry of Economic Development. After analysing the 130 submissions on the ETAG's discussion document, the Minister for Energy and Resources on 9 December 2009 announced a package of 29 new measures to improve performance in the electricity sector.[88] The next day, the Electricity Industry Bill 2009 was introduced into Parliament. The Bill is intended to come into effect on 1 October 2010.

The overall objective of the Bill is 'to improve competition in the electricity market and improve security of supply by improving the governance arrangements for the electricity industry; providing for specific regulatory improvements to be made; [and] making improvements to the overall structure of the sector.'[89] The Electricity Commission will be abolished and replaced with a new Electricity Authority, an independent Crown Entity. The multiple and unwieldy objectives of the latter, which included fairness, environmental sustainability and another eight outcomes, and led to 'complicated rule-making',[90] are more narrowly focused in its successor body. Distributors (lines businesses) will be allowed to re-enter the retail market, subject to certain safeguards designed to thwart anti-competitive conduct. One such restriction is the retention of ownership separation between distributors and generators with more than 100MW of grid-connection generation. The purpose here is 'to prevent large-scale vertical integration between generator retailers and lines businesses'.[91] This could have a serious anti-competitive effect, 'especially where the generator-retailer is the incumbent retailer'.[92] Another safeguard is a ban on distributors purchasing the customer bases of an existing retailer. The aim of increased competition would hardly be fostered if distributors could simply acquire incumbent retailers and thereby raise the height of entry barriers to new retailers (who would now face established vertically-integrated distributor/retailer firms).[93] Certain assets of the three SOE generators will be re-configured. For example, the Tekapo A and B power stations will be transferred from Meridian Energy to Genesis Energy and thus allow Genesis, a North Island gentailer, to provide greater competition in the South Island (where Meridian currently holds a near monopoly).[94] A more liquid hedge market to assist industry players to manage price risk will be implemented. This 'is a key reform to reduce entry barriers for new retailers and independent generators'.[95] The major gentailers will be invited to do this, but coercive measures will follow if nothing is forthcoming within the following year. All wholesale market bids and offers will be publicly released the next day (instead of the current two week delay[96]) thereby permitting better monitoring of such data.

This Bill is the fifth piece of legislation designed to improve efficiency and stimulate competition in the electricity industry since the original Electricity Industry Reform Act 1998.[97] Nicholas Russell, echoing Joskow, rightly laments that 'the pattern of introducing reforms every two or three years has a cost in and of itself in the form of regulatory uncertainty … and only makes … investment decisions in [infrastructure assets] more difficult.'[98]

One area yet to be addressed is the separation of generation and retailing.[99] The major generators' market power is considerably enhanced by their vertical integration into retailing. The Review rejected submissions that urged the separation of generation and retail businesses, offering a most cursory explanation: 'The review team does not support this, as it would increase transaction costs and the riskiness and costs of both generation and retailing.'[100]

This is an inadequate response that sidesteps a critical policy trade-off. The costs of separation (especially higher transaction costs) must be compared with the productive and dynamic efficiency benefits gained through increased competition. As Joskow points out, vertical integration is not inherently problematic

> ... as long as there are a sufficient number of vertically integrated suppliers that continue to compete in the market. However, if there is significant market power in the upstream or downstream markets, vertical integration could lead to a further reduction in competition by increasing the operating or entry costs of rival retail suppliers. Bertram (2006) suggests that in New Zealand the intensity of competition declined significantly as retail suppliers became vertically integrated …[101]

Bertram's careful 2006 critique recorded how the retail businesses 'were quickly snapped up'[102] in 1999-2000 by the five main generators. Thereafter, the supply of wholesale electricity to their retailer affiliates became an intra-firm transfer.

87 Ibid., at 36 to 37.
88 Summary of Main Decisions: Ministerial Review into Electricity Market Performance, 9 December 2009: http://www.med.govt.nz/upload/70927/summary-of-decisions.pdf. One measure not carried over into the text of the 2009 Bill is the creation of a three-year, $5 per annum fund to devise and upgrade mechanisms (such as the Consumer NZ's successful *Powerswitch* price-comparison website) to enable consumers to more easily switch between retailers. It is estimated that residential consumers could save an average $100 a year by changing to the cheapest available retailer: see Cabinet Paper, *Ministerial Review of the Electricity Market*, 7 December 2009, at paragraph 20: http://www.med.govt.nz/upload/71002/cabinet-paper.pdf.
89 Explanatory Note to the Electricity Industry Bill 2009, at 1.
90 Ibid., at 3.
91 Ibid., at 11.
92 Ibid.
93 Ibid.
94 Ibid., at 14.
95 Ibid., at 9.
96 Cabinet Paper, *Ministerial Review*, at paragraph 66.
97 Explanatory Note at 10. The original legislation, the Electricity Industry Reform Act 1998, has been amended three times: in 2001 (a new Part 4A of the Commerce Act 1986, dealing with electricity regulation, was added via the Commerce Amendment Act (No 2) 2001); in 2004 (the Electricity Industry Reform Amendment Act 2004); and in 2008 (further changes to Part 4A were implemented by the Commerce Amendment Act 2008). The 2009 Bill is thus the fifth legislative measure.
98 N. Russell, 'Regulatory Reform in the Electricity Industry: A New Dawn or Another False Start?, *NZ Lawyer,* 5 March 2010, 10 at 11.
99 A point well made by Jeanette Fitzsimons MP in her speech in the First Reading of the Electricity Industry Reform Amendment Bill 2007, (2007) 644 NZPD 13988: 'We still have not dealt though with the question of the generator/retailers monopolies. We still have very, very large industries making very, very large profits, and shortly they will make larger profits still when the emissions trading scheme comes in. Three of them are owned by the Government and one of them is not. They are able to exert considerable monopoly power because they combined generation and retailing. That is something that has still not been addressed …'.
100 Cabinet Paper, *Ministerial Review,* at 15, n 14.
101 Joskow. 'Lessons', at 35.
102 Bertram, 'Restructuring', at 217.

There was little need for the generators to enter into long-term contracts. Bertam continued: 'In the very light-handed New Zealand regulatory environment of the 1990s, vertically integrated generator retailers had a strong competitive advantage over stand-alone retail businesses because of their ability to hold physical hedges within each company, whereas independent retailers had to secure hedge contracts from generators on an extremely thin market, or face exposure to the spot price.'[103] A familiar 'price squeeze' or 'margin squeeze' by powerful vertically-integrated firms occurs.[104] 'A price squeeze occurs when a dominant vertically-integrated supplier sets prices in the upstream wholesale market in a manner that prevents equally or more efficient competitors from profitably operating in the downstream market.'[105] For example, an independent electricity retailer cannot raise its prices to cover the higher wholesale prices during dry seasons (when the hydro lakes' levels are low) since its gentailer rivals can simply keep their retail prices unchanged throughout the crisis.[106] Bertram identified several 'unresolved' regulatory issues, including this one (that still remains unaddressed): 'There is little prospect that the incumbent generators will be forced to divest their retail affiliates; yet without such divestment, new competitive retail entry remains foreclosed.'[107]

Conclusion

A notable feature of the literature evaluating global electricity market reforms is the sober warning that '[i]n energy deregulation, pragmatism trumps ideology.'[108] Unfortunately, the reverse has often been the case.[109] In New Zealand, the verdict of the Green Party Co-Leader was damning:

> The Max Bradford Bill [that became the original reform legislation, the Electricity Industry Reform Act 1998] was *a matter of pure ideology triumphing over all practicality and feasibility.* It broke up an integrated and efficient system that was the envy of the world in that it had a plan for dispatching the most efficient generation first. This is replaced these days by a market, which sounds fine, except that a market can be gamed … [110]

First, it is a mistake to treat electricity just like any other commodity. Dieter Helm, in his magisterial analysis of the British experience, reflects:

> The market enthusiasts failed to recognize just how far the electricity market deviated from the normal commodity market. To recap, supply must instantaneously match demand as there is limited scope for storage; the assets are sunk and long-lived; the networks are natural monopolies; there are very great environmental externalities … It is hard to think of any other activity in modern developed economies with quite such a coincidence of major market failures.[111]

'In physical terms', explains Xu Yi-chong, '[electricity] is a process' where various kinds of energy such as water, wind, and gas are converted into electricity which is simultaneously consumed at the very moment it is produced.[112] The process is complex, intricate and is accomplished through 'a complex "coordination" system'[113] that integrates generation, transmission and distribution facilities to ensure a reliable supply at hopefully low and stable prices.

Second, deregulation per se is insufficient. 'Creating competitive markets is a process of market design, not merely deregulation. Markets do not magically spring to life when government has gotten out of the way.'[114] In fact, deregulation may be a insidious misnomer, for a large dose of government intervention, albeit of a more indirect, rule-bound type, is required. As Helm cautioned:

> An early casualty in the market approach was the recognition that promoting competition and deregulation did not go hand in hand. On the contrary, it turned out that, in order to promote competition, very intense *regulation for competition* would be required, which was much more demanding than the regulation *of* monopoly.[115]

The 'dominant trend in advanced industrial countries', affirms Steve Vogel, 'has not been one of deregulation (less regulation), but rather liberalization (more competition) combined with re-regulation (more regulation) or "freer markets and more rules".'[116]

Third, there is the brutal reality of what Fitzsimons in the quotation above referred to as 'gaming': the dominant players will do their utmost to shape the newly-minted markets in *their* favour. 'The job of business is not to create competition, but rather monopolies, and, once established, to protect them.'[117] To assume that the opening up of markets would see 'a game played according to Marquis of Queensbury rules' was always naive; after all, 'players always feel free to change the rules to their advantage.'[118]

The lessons are there to be learned. Whether New Zealand policy-makers can make up for lost opportunities remains to be seen.

---

103 Ibid., at 217 to 218.
104 See John Vickers, 'Competition Policy and Property Rights' (2010) 120 *Economic Journal* 375 at 376.
105 *Commerce Commission v Telecom Corp NZ Ltd* [data tails], High Court, Auckland, CIV 2004-404-1333, 9 October 2009, Rodney Hansen J and Prof M Richardson, at [3].
106 Bertram, 'Restructuring', at 218 (describing the 'classic cost-price squeeze' of NGC in the 2001 dry winter).
107 Ibid., at 230.
108 Jeremiah D. Lambert, *Energy Companies and Market Reform: How Deregulation Went Wrong* (2006) at 251.
109 On this point, see the excellent critique of the early reform path by Daniel Kaldermis, 'Pure Ideology: The "Ownership Split" of Power Companies in the 1998 Electricity Reforms' (2000) 31 VUWLR 225.
110 Jeanette Fitzsimons MP, Electricity Industry Reform Amendment Bill 2007, First Reading (2007) 644 NZPD 13987 (*emphasis supplied*).
111 Helm, *Energy, the State and the Market*, at 418 to 419.
112 Xu Yi-chong, 'Models, Templates and Currents: The World Bank and Electricity Reform' (2005) 12 *Review of International Political Economy* 647 at 653.
113 Paul Joskow, 'Restructuring Competition and Regulatory Reform, and Structural Reform in the US Electricity Sector' (1997) 11 *Journal of Economic Perspectives* 119 at 121.
114 Marc K. Landy and Martin A. Levin, 'Creating Competitive Markets: The Politics of Market Design' in Marc K. Landy, Martin A. Levin and Martin Shapiro (eds), *Creating Competitive Markets : The Politics of Regulatory Reform* (2007) ch. 1, at 21.
115 Helm, *Energy, the State and the Market,* at 417 to 418 (*original emphasis*).
116 S. Vogel, 'Why Freer Markets Need More Rules' in Landy *et al.*, *Creating Competitive Markets,* ch. 2 at 28.
117 Helm, *Energy, the State and the Market*, at 154.
118 Landy and Levin, 'Politics of Market Design', at 10.