

Commerce Commission Decides not to Regulate Gas Metering: Curious or Common Sense?

Last week the Commerce Commission (Commission) announced that it wouldn't be initiating an inquiry under Part 4 of the *Commerce Act 1986* (Part 4 inquiry) into whether regulation should be imposed on the supply of gas metering services.¹ This decision may have come as a surprise to many who have been following the matter. For the benefit of those who haven't, the genesis of the decision was Vector's application for clearance to acquire Contact's gas meters around three years ago.²

In considering the clearance application, the Commission found there was little competition between the two firms and other market participants. It went so far as to label them 'parallel monopolists'.³ Having reached that conclusion, the Commission was left with little choice but to clear the application since, if its analysis was correct, there wasn't really much competition for the proposed transaction to lessen. However, any celebrations on Vector's part were to prove premature.

No sooner had the Commission granted the clearance that it announced it would be exploring whether it was appropriate to recommend *regulating* gas metering services on account of that apparent lack of rivalry. To that end, since mid-2015 the Commission has been undertaking a 'preliminary assessment' into whether or not a full Part 4 inquiry is warranted. Last week, it decided it wasn't. In this note I set out the Commission's reasons, and why I think the case for regulation was even weaker than it made out.

Overview of the Commission's decision

On its face, the Commission's decision might seem a bit odd: how could it conclude in a clearance assessment that firms are 'parallel monopolists' but not recommend that a full inquiry be undertaken into whether to regulate? The answer is that, even if the Commission was correct to conclude in its earlier clearance assessment that competition was limited (which, as I will suggest shortly, is debatable), that's not enough to warrant a Part 4 inquiry. Before it can recommend the introduction of regulation, section 52G of the *Commerce Act 1986* requires it to consider whether:

- the goods or services are supplied in a market where there is little or no competition and, importantly, little or no likelihood of a *substantial increase* in competition;
- there is scope for the exercise of substantial market power in relation to the goods or services, taking into account the effectiveness of existing regulation or arrangements (including ownership arrangements); and
- the benefits of regulating the goods or services in meeting the purpose of Part 4 materially exceed the costs of regulation, i.e., whether there is a material *net* benefit.

Before spending the resources – and generating the considerable uncertainty – associated with a full-blown inquiry, it makes sense for the Commission to first take an initial high-level look at the likelihood that these criteria will be met. Such is the purpose of a 'preliminary assessment': not to reach firm conclusions but, instead, to reach a pragmatic view about whether the probability of each of these three criterion (or 'limbs') being fulfilled

is high enough to warrant taking the next step, and incurring the significant attendant costs. That is what the Commission has been doing for the past 10 months.

Competition and market power tests

A key focus of the first two limbs – the ‘competition’ and ‘market power’ tests was upon the potentially disruptive impact of ‘smart meters’. Most residential gas meters in New Zealand are ‘simple aggregation meters’ that cannot be read, connected or disconnected remotely. Most are owned by Vector and Powerco. Vector submitted that, even if competition in the metering space was currently limited (a point it did not concede and which the Commission arguably did not establish – see more below), there was a strong likelihood of a *substantial increase* in competition *in the future* when aggregation meters are replaced by ‘smart meters’ that can be accessed remotely via telecommunications infrastructure.

Vector contended that these replacements would happen by way of ‘wholesale deployments’, with retailers essentially ‘swapping out’ their entire metering fleets and contracts being awarded via competitive tenders. It noted that this is precisely what has happened in the electricity metering space in recent years, where smart meters are now almost ubiquitous. Vector stated that deployments were likely to occur within the next ten years and would be a ‘game changer’. In the end, the Commission concluded that the *future* states of competition and market power weren’t sufficiently clear since, based on the material obtained, it didn’t feel it could reach a firm view on:

- the timing and likelihood of the roll out of smart meters; and
- whether or not the greater deployment of smart meters (if this occurred) would have a material effect on competition.

Conversely, when it came to the *current* state of competition and scope for the exercise of market power, it was sufficiently confident to reiterate the same, dim view that it had expressed previously during Vector’s acquisition of Contact’s gas meters. Relying on its earlier analysis (which I examine shortly), it concluded that there is currently little or no competition and significant continued scope for the exercise of substantial market power. On the whole, it’s fair to say that the Commission was therefore less than enamoured with the current state of play, and reluctant to accept that smart meters would be soon be deployed in a way that would ‘amp up’ the level of competitive rivalry.⁴

Cost benefit test

It was consequently the ‘third limb’ of the statutory criteria – the estimated net benefits of regulation – that proved decisive. The Commission estimated that the net benefits to consumers of regulation – that is, the benefits *less* the costs – were simply too small to justify undertaking a full inquiry, despite its less than complimentary opinion of the current state of rivalry. Informed by analysis undertaken by its advisors, Covec,⁵ the Commission concluded that the net benefits to consumers of introducing regulation would be around only 60c to \$1 per month (depending upon the assumptions employed) – so, about what you would pay for three cups of coffee per year.⁶

The Commission then went on to observe that, if there had been the option to it of simply folding gas metering services into the existing regulatory arrangements for gas distribution services (rather than it having to implement a regime 'afresh'), then the direct costs of regulation (which it put at \$15m over 10 years) would have been lower and the estimated net benefits correspondingly higher.⁷ It even went so far as to signal the need for a legislative amendment to that effect.⁸ It might therefore be tempting to infer from this that, when taken as a whole, the preliminary decision is essentially saying that:

- the competition and market power limbs were likely to have been met if a full Part 4 inquiry had been undertaken – indeed, why else would the Commission say that it 'still has concerns about the lack of competition'⁹ and that it will 'continue to pay attention to the pricing of gas metering services in the future'¹⁰?; and
- the 'cost benefit' analysis was hindered by the Commission's inability to add metering to the existing suite of regulated gas services and, had the legislation permitted this, the estimated net benefits might have been sufficiently enticing to warrant regulation that would have delivered material gains to consumers.

I think that any such inference would be unsound, for two reasons. Firstly, as modest as the Commission's estimates of the net benefits of regulation may have been, there is good reason to think that they were overstated. In fact, it's conceivable that introducing regulation would impose a net *cost* on consumers. And secondly, even if the Commission had identified a material net benefit from regulation, it arguably didn't establish an *existing* competition problem that would warrant its introduction, much less an enduring one – the earlier analysis in the clearance decision doesn't really do this.

The net benefits of regulation are overstated

In the grand scheme of things, the amount that a customer pays per year for a simple aggregation meter isn't all that much – it represents a modest fraction of a typical retail gas bill (the numbers themselves are, of course, confidential). Then, when you consider that any price reduction arising from regulation will be an even *smaller* sum, it's hardly surprising the Commission concluded that the net benefit to the average consumer from introducing regulation would be so small – \$1 per month or less. However, as low as the Commission's estimates of the net benefits were, they should probably have been even lower.

Consumer welfare vs. total welfare

The welfare standard that the Commission employed throughout its cost benefit analysis is problematic. It applied predominantly a 'consumer' welfare standard, which counts every \$1 that is transferred from metering providers to gas retailers and/or their customers as a benefit of regulation. However, for there to be true allocative efficiency gains, *new* wealth must be generated, i.e., someone (namely, consumers) must be made better off by regulation without anyone else (namely, metering providers) being made equally worse off. That can only happen if there is an increase in demand, i.e., if more gas is sold.

Of course, in order for consumers to respond to a price reduction by increasing demand, they have to notice it. It's highly optimistic to think that gas customers would notice a 60c - \$1 per month fall in their bills. So, as the Commission rightly acknowledges, the

introduction of regulation would not result in any static efficiency gains.¹¹ The same amount of gas would be consumed – all that would happen is existing wealth would be transferred from one group to another. It follows that if a *total* welfare standard was adopted (which does not count transfers as benefits), there would be no net benefit from regulation.

If this absence of economic efficiency gains was not troublesome enough, there is also the further practical difficulty that ‘consumers’ and ‘producers’ are not neatly distinguishable in the manner implied in the preliminary assessment. For example, gas metering customers may own shares in the regulated companies or work for the company, etc. In other words, ‘consumers’ may be ‘producers’ in some capacity as well. This makes a consumer welfare standard very difficult to implement properly, since the person receiving an \$1 may also be the one paying it.

In Vector’s case, its largest shareholder (with a 75.4% holding) is the Auckland Energy Consumer Trust (AECT) – a consumer group. Some of the members of the AECT will be receiving gas metering services from Vector (via a retailer). These final customers are clearly both consumers *and* producers. Lower gas metering prices would necessarily mean reduced shareholder returns (dividends). Nonetheless, when assessing the benefits to an AECT household of introducing regulation, a pure consumer welfare standard:

- counts any reduction in the gas metering price as a benefit to that consumer; but
- ignores the lower dividend payment the same consumer will consequently receive through the AECT.

In other words, the consumer welfare approach would suggest that those consumers are better off when, in fact, they aren’t. A pure consumer welfare standard can’t really address these real life complexities. In this instance, the inevitable consequence is that the average gas consumer would *not* actually be better off to the tune of 60c - \$1 per month – it would be less than that (but it’s hard to say how much less). Two further shortcomings in the cost benefit methodology also serve to inflate the estimated net benefits: the selected weighted average cost of capital (WACC) and the decision to overlook a critical category of costs.

The WACC used is too low

Covec estimated the potential benefits of regulation by comparing the rates of return forecast to be earned by the two metering businesses with the WACC that would be applied to Vector’s and Powerco’s gas distribution pipeline businesses (GPBs) if they were to seek a customised price-quality path (the ‘CPP WACCs’).¹² Any returns forecast to be above this level were deemed ‘excess profits’ and counted as potential benefits of regulation. In other words, Covec assumed that a gas metering business would be regulated so as to earn the *same return* as a GPB on a CPP.

This approach is explicable, since it uses a readily available, recent benchmark produced by the Commission itself. Nevertheless, it’s wrong. Using the latest CPP WACCs offers the advantage of expediency, but it doesn’t represent an appropriate target rate of return for a gas metering business facing a possible transition to smart metering. Given that incumbent businesses face a risk of wide-spread displacement of their existing gas meters, there’s some

chance that they won't be able to recover the full costs of those legacy assets before smart meters are introduced.¹³

Any rational investor would expect to be compensated for this contingency. The resulting cash flow risk would therefore need to be reflected in any WACC that's applied to Vector's and Powerco's existing assets (which comprise predominantly – albeit not exclusively – gas aggregation meters). However, the CPP WACCs don't provide any explicit compensation for asset stranding risks. It follows that the only circumstances in which it would be appropriate to use them and, consequently, allow zero compensation for stranding risk during the 10-year period in which returns are assessed is if:

- it can be said with a sufficiently high degree of certainty that the businesses will be able to recover the value of their assets before the end of those assets' lives (and any replacement assets to the extent that there are overlapping lives); and
- to be clear, it wouldn't matter if some proportion of that asset value is stranded in, say, 20 years' time (i.e., beyond the 10-year assessment window) – if there is a non-zero probability of that stranding occurring, an investor would require compensation for that eventuality before it would invest *today*.¹⁴

These conditions aren't met. To be sure, there's scope for differences in opinion about the precise *timing* of any smart meter deployments, but one can't reasonably say that there's no real possibility of them happening. That being so, the CPP WACCs don't represent the right benchmark against which to measure excess profits. Something higher would be needed to properly compensate investors for the risks posed by the prospect of technological disruption. This would serve to reduce Commission's already very small estimates of net benefits even further.

The most important costs are not included

The costs that the Commission considers in its cost benefit analysis are limited to the direct costs of undertaking a Part 4 inquiry and any regulation, e.g., the direct costs associated with designing, implementing and administering any regime. It estimates those to be \$15m (in \$2016) over the 10-year assessment window.¹⁵ However, it's well accepted that the largest potential costs of introducing regulation – or even considering doing so – are generally those associated with the effects on incentives to invest and innovate. If the Commission had proceeded with a Part 4 inquiry, it's reasonable to expect that:

- firms would have been disinclined to invest in smart meters until that review had been completed and, if applicable, the form of regulation had been finalised; and
- depending upon the form of regulation, metering providers could also have been reluctant to invest in smart meters from that point forward as well.¹⁶

The potential costs associated with these 'chilling effects' on investment are difficult to estimate – and the Commission, perhaps understandably, did not attempt to do so – but they could easily dwarf the other costs that were considered. Those potential costs would have manifested in the form of foregone benefits. Specifically, they would have equalled the benefits that consumers would have accrued from smart metering that were either delayed

or lost altogether if the Commission's decision had caused investments in that technology to be postponed or abandoned.

Smart meters have the potential to deliver significant cost reductions throughout the gas supply chain, which would be expected to ultimately flow through (at least in part) to final customers in the form of lower retail gas prices. Those cost savings – and the attendant potential benefits to consumers – could stem from:

- remote meter reading, connections and disconnections, which removes the need for personnel to visit customers' premises, which saves costs and reduces health and safety issues, i.e., dog bites, bee hives in meter boxes, assaults from protective homeowners dressed as Rambo (all real examples¹⁷), and so on;
- more accurate consumption information, which enables more accurate billing, reducing 'bill shock' for consumers and the cost of consumer dispute resolution, e.g., time spent on the phone in call centres; and
- reductions in unaccounted-for-gas, reduced pipeline balancing costs and more accurate nominations by retailers – all of which could be expected to give rise to significant cost savings throughout the supply chain.

As the Commission pointed out, those benefits – significant as they may be – are not yet sufficient to overcome the price differential that exists between smart meters and legacy meters. However, that price differential is narrowing and an inflection point could soon be reached when those benefits outweigh any residual difference. Ordinarily, investment in smart meters would begin once that point arrives. One of the biggest risks associated with undertaking a full inquiry – and potentially introducing regulation – was therefore that:

- this inflection point may have been reached, but investment in smart meters not occur because of the chilling effects described above; and
- from that day forward, consumers would have been deprived of the benefit of the lower prices that they may otherwise have received.

It would then not be long before those costs substantially outweighed any benefits from regulation which, as the Commission highlighted, are very small. For this reason – and the other factors that I described earlier – as small as the Commission's estimates of the net benefits of regulation may have been, they were probably overstated significantly. There's therefore no good reason to think that a properly constructed cost benefit test would have produced a different answer if the legislation had permitted the Commission to add metering to the suite of gas services already regulated under Part 4.

The analyses of the competition and market power tests are flawed

I explained earlier that the Commission did not reach any firm conclusion in relation to the *future* states of competition and market power, since it was unable to arrive at a view on the timing and likelihood of the roll out of smart meters. In contrast, it *did* reach a definitive conclusion as to the *current* states of competition and market power: namely, that there's currently little or no competition and significant continued scope for the exercise of market power. In my opinion, that conclusion is questionable.

Misinterpretation of limit pricing

The Commission's conclusions as to the current state of competition are based on the analysis it undertook when assessing Vector's acquisition of Contact's gas meters. During that process, it observed – quite rightly – that Contact's role as a metering provider at other premises gave it no special advantage in displacing Vector's meters since, at that time, once a legacy meter was installed it was almost never removed. That being so, the Commission was quite right to conclude that there was limited *actual* competition between Contact and Vector, and no lessening of competition as a result of the transaction.

The Commission also observed that gas metering providers were able to stave off *potential* competition by engaging in what it termed 'limit pricing'. Specifically, it observed that pricing is set up to the cost of 'wholesale displacement', namely:¹⁸

"... the price is [set] at the gas metering provider's perception of the limit above which the retailers would be better off to sponsor the 'wholesale displacement' of the meters for their customers. Such wholesale displacement involves substantial switching costs so the limit price is significantly higher than a new installation cost ...

... all gas metering prices appear to be at the limit price set by the gas metering providers' perception of the threat of wholesale displacement – sponsored by retailers. In the absence of any competition for new installations, new connections are priced at the same limit price"

In its preliminary assessment, the Commission concluded that:¹⁹

"This suggests that suppliers of gas metering services have the ability to take advantage of their market power by pricing well above the cost of providing the metering services."

There is really nothing all that remarkable about a firm engaging in 'limit pricing'. All profit maximising firms attempt to set their prices as high as they can without losing business, i.e., without being "displaced" by another supplier. In competitive markets, this limit is determined by the cost that a rival would incur entering or expanding supply, i.e., by forward-looking replacement costs. It is generally only when a firm is able to persistently set prices *above* an entrant's replacement costs without prompting entry and/or expansion that there is evidence of a lack of competition and the existence of substantial market power.

This is because the only way a firm can sustain such prices is if enduring barriers to entry/expansion are preventing other firms from entering/expanding, resulting in limited competition.²⁰ However, in its clearance decision, the Commission's concern appeared to be that the replacement cost that an entrant would face displacing an incumbent's meters was greater than the costs that the incumbent itself would face, e.g., it believed that an entrant would incur additional 'switching costs' removing and returning existing meters.

The Commission appeared to consider that any such 'entrant specific costs' represented a barrier to entry that enabled Vector and Powerco to increase prices to a level above *their own* replacement costs (but still *below an entrant's* replacement costs), and that this represented an exercise of substantial market power. However, even if this was a legitimate cause for

concern at the time of the merger clearance (which is debatable), that is arguably no longer the case today.

As I understand it, it is highly unlikely that any firm – entrant or otherwise – would elect to deploy legacy meters as part of a wholesale displacement. The asset stranding risk is likely to be simply too great. If an entrant was going to roll out anything, it would almost certainly deploy smart meters. There would therefore be no ‘entrant specific’ costs associated with removing and returning meters – the task involved would be the same, irrespective of the firm undertaking the installation.

Consequently, in practice, there may not be much difference between the cost associated with a ‘retailer sponsored’ entrant undertaking a wholesale deployment and the new installation cost that Vector or Powerco would face. Put another way, there’s probably not much difference between an incumbent’s forward looking replacement costs and an entrant’s. That being the case, it’s not obvious that there’s anything wrong with Vector and Power engaging in limit pricing. It’s not necessarily a sign of limited competition – it could instead reflect a workably competitive market outcome.

For that reason, if one accepts the Commission’s belief that it did not have sufficient information to reach a conclusion on the *future* state of competition then it’s not clear that it should have reached a firm conclusion on the *current* state of competition either. In particular, it’s not obvious that there was any real basis for it to assume that Vector and Powerco were setting prices above competitive levels – and no empirical analysis was undertaken to test whether returns exceeded forward looking replacement costs.

Counterintuitive modelling of scenarios

The approach taken by Covec – and, by extension, the Commission – to the cost benefit analysis also reveals a confusing interpretation of the competition and market power tests. Most notably, Vector provided data on a scenario in which a rival essentially steals its metering business through a rapid deployment of smart meters. Covec – and, in turn, the Commission – chose not to model that scenario since, in its view, it would not pass the competition test and was therefore irrelevant to the assessment of net benefits.²¹

But Covec *did* model the costs and benefits associated with a scenario in which *Vector itself* deployed smart meters (it did the same for Powerco). Presumably, it did so because it considered that this scenario *would* pass the competition test, i.e., it would not be suggestive of effective competition. This distinction is puzzling. It’s not at all clear why the identity of the firm that ultimately deployed smart meters would be a relevant factor in determining whether the competition and market power tests were met.

Provided that such deployments would be subject to competitive forces – e.g., provided through a competitive tender – then these tests shouldn’t be passed irrespective of how that competition ultimately plays out, i.e., who deploys the meters. Covec’s approach is only explicable if it’s envisaging the scenarios in which Vector and Powerco deploy smart meters as somehow involving an ‘uncontested’ process. But it’s hard to see how they could insulate themselves from competition in this manner.

For example, it seems highly unlikely – probably implausible – that Vector or Powerco could displace a large proportion of their existing meters without the relevant retailers knowing, e.g., that they could not deploy smart meters ‘by stealth’. That being the case, as soon as retailers become aware that such replacements are occurring or imminent, they can be expected to assess whether they would be better off:

- allowing the firm to proceed with that replacement, i.e., if it’s satisfied with the terms and conditions being offered; or
- undertaking a competitive tender or soliciting other offers if they felt that they might receive more favourable terms from another provider.

In either case, there would be competition for the supply of the services. The fact that a potential outcome of that process is Vector or Powerco deploying smart meters is neither here nor there insofar as the competition and market power tests are concerned – they still wouldn’t be passed. It’s consequently counterintuitive for Covec and the Commission to conclude that only those scenarios in which *other* providers deploy smart meters would herald workable competition. It represents a very curious aspect of the decision.

Conclusion

The preliminary inquiry process was a very useful one, since it avoided needless costs and uncertainty. However, the case for proceeding with a full inquiry was even weaker than the Commission suggested. Firstly, as modest as the estimates of the net benefits of regulation were, there’s good reason to think they were overstated – regulation may have even imposed a net *cost* on consumers. And secondly, even if the Commission had identified a material net benefit from regulation, it arguably didn’t establish an *existing* competition problem that would warrant its introduction, much less an enduring one.

April, 2016

Disclosure: I provided expert economic advice to Vector throughout the preliminary assessment process. The analysis set out in note represents my own, independent views.



Hayden Green

Director, New Zealand

E: hayden.green@axiomeconomics.co.nz

T: +64 212 664 884

W: www.axiomeconomics.co.nz



-
- 1 Commerce Commission, *Preliminary assessment of whether to conduct a Part 4 inquiry into gas metering services*, 1 April 2016 (hereafter: “Preliminary assessment”).
- 2 Commerce Commission, *Determination, Vector Limited and Contact Energy Limited* [2013] NZCC 9, 26 April 2013 (hereafter: “Clearance decision”).
- 3 Clearance decision, p.16.
- 4 The Commission did acknowledge that more work would need to be done before it could arrive at a firm view on these points. See: Preliminary assessment, pp.16 and 19.
- 5 Covec, *Updated Preliminary Assessment of Merits of Part 4 Inquiry into Gas Metering*, 29 January 2016 (hereafter: “Covec report”).
- 6 Note also that this is likely to comprise solely a transfer of wealth from suppliers of gas metering services (i.e., Vector and Powerco) to either retailers or consumers (depending upon the extent of pass-through). As the Commission itself concedes, there would be unlikely to be any genuine allocative efficiency gains. Indeed, such modest price changes would be barely noticeable by consumers, and would be unlikely to lead to any change in consumption behaviour.
- 7 Preliminary assessment, pp.6-7.
- 8 Preliminary assessment, p.26.
- 9 Preliminary assessment, p.12.
- 10 *Ibid.*
- 11 Preliminary assessment, footnote 24.
- 12 These estimates are 7.25% for Powerco and 6.86% for Vector, respectively. Powerco’s CPP WACC is estimated at 1 March 2015, and Vector’s at 1 December 2015.
- 13 It is worth noting that those costs will be imposed on incumbents irrespective of whether they are the business deploying smart meters. If a rival supplants an incumbent’s meters then, clearly, those legacy costs are irrevocable. But even when the incumbent itself is replacing its own meters, it will not be able to recover any residual costs, because retailers will have the option of switching to a new supplier that is not encumbered with such legacy costs.
- 14 In other words, even if the Commission concluded that there was zero prospect of smart meters being deployed within the next 10 years (i.e., its assessment window), that does not necessarily mean that the effect of technological change can be ignored. If the remaining lives of the existing legacy assets – and any replacements – extend *beyond* that ten-year window (which, in some cases, they would) and there is some prospect of smart meters being employed over that *longer* timeframe, an investor would still require compensation for that eventuality before it would invest *today*.
- 15 Preliminary assessment, p.22.
- 16 Note that even in a scenario in which legacy meters are regulated in some fashion but smart meters are not, investment incentives can be compromised. Prospective investors may eschew from investing in the new technology for fear that it too will one day be regulated – particularly if they obtain a large market share. In short, subjecting one service to regulation may adversely affect firms’ incentives to invest in others, since firms may anticipate ‘history to repeat’.
- 17 A recent submission from Metropolis Metering Services to the Australian Energy Market Commission contained the following, truly inspired passage: “*It is not possible to provide assurance that a meter install will occur on a specific date. Installation dates change due to fluctuation in work load, or specific issues associated with installations – such as a bee hive in the meter box, a flat tire on the installer’s car or a consumer who likes to dress as Rambo and ambush anyone he finds on his property. (Yes, these are all real scenarios that Metropolis installers have encountered).*” See: Metropolis Metering Services, *National Electricity Amendment (Meter Replacement Process) Rule 2015*, p.4.
- 18 Clearance decision, p.17.
- 19 *Ibid.*
- 20 This standard economic test for market power has been highlighted in the past by Axiom economists, see: Green et al, *Potential Generator Market Power in the NEM*, A Report for the AEMC, 22 June 2011. That advice has also been accepted by Australian regulators, see: Australian Energy Market Commission, *Potential Generator Market Power in the NEM, Final Rule Determination*, 26 April 2013, p.20.
- 21 Covec report, p.iii.